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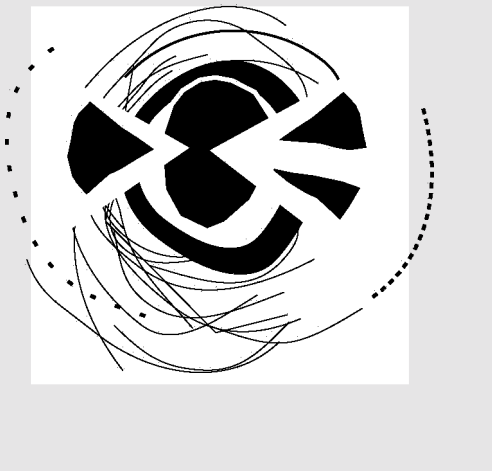

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Foreign Investment in Latin America and the Caribbean, 2000 Report is the latest edition of a series published annually by the ECLAC Unit on Investment and Corporate Strategies. It was prepared by Álvaro Calderón and Michael Mortimore, with assistance from external consultants Matías Kúlfas and José Claudio Linhares Pires on the country case studies concerning the telecommunications industries in Argentina and Brazil, respectively, and from Jaime Crispi on chapter I. Nicole Moussa made a major substantive contribution to chapter IV (telecommunications), as did Sebastián Vergara in the case of chapter II (Chile). The compilation and processing of statistical data was carried out by Lorena Farías with the assistance of Carlos Guaipatin, José Luis Lima and Juan Pablo Álvarez.

The Unit's Information Centre has served as the primary source of quantitative data. The development of this Information Centre has provided the Unit with ready access to statistical information and other types of data from a number of international organizations, including the International Monetary Fund (IMF), the Statistical Office of the European Communities (EUROSTAT), the United Nations Conference on Trade and Development (UNCTAD) and the Institute for European-Latin American Relations (IRELA), as well as a host of national institutions such as central banks and investment promotion agencies for Latin America and the Caribbean.

Any comments or suggestions regarding this publication are welcome and should be directed to Michael Mortimore (email: mmortimore@eclac.cl).

Notes and explanation of symbols

The following symbols have been used in the tables in this study:

Three dots (. . .) indicate that data are not available or are not separately reported.
A dash (-) indicates that the amounts is nil or negligible.
A point (.) is used to indicate decimals.
Use if a hyphen (-) between years, e.g., 1971-1973, indicates reference to the complete number of calendar years involved, including the beginning and end years.
The word “dollars” refers to United States dollars, unless otherwise specified.
Figures and percentages in tables may not neccessarly add up to the corresponding totals, because of rounding.

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ABSTRACT

This study seeks to provide greater insight into foreign direct investment (FDI) in Latin America and the Caribbean. A corporate strategy-based analytical framework has been used to interpret the copious yet heterogeneous information available on the subject. The research programme employed by the Unit on Investment and Corporate Strategies is structured around the examination of specific situations in selected investor countries, FDI host countries and FDI recipient industries in the region. This research, together with the statistical and qualitative data compiled by the Unit's Information Centre, has been used to provide an increasingly comprehensive picture of FDI in the region.

In 2000, for the first time in nearly two decades, the Latin American and Caribbean region's FDI inflows dropped by 20% from the previous year's figure to stand at just US$ 74.191 billion. Nevertheless, caution should be exercised in analysing this turnaround in the trend, since the large inflows recorded for 1999 were the result of a limited number of major acquisitions of Latin American companies by foreign corporations which are unlikely to be repeated in the future. In addition, close to 60% of total foreign capital inflows were concentrated in just two countries: Brazil and Mexico. In fact, Brazil was the top choice of foreign investors for the fifth year running and accounted for 40% of total FDI inflows to the entire region. Moreover, in a continuation of the trend of earlier years, a very high percentage of FDI flows were used for the acquisition of existing assets, primarily in services sectors such as telecommunications, energy and finance.

In addition to giving a broad-ranging and detailed review of FDI in Latin America and the Caribbean, this report presents a thorough analysis of Chile's position as a destination country (particularly in natural resource-based activities and, more recently, services); of Japan's role as a major international investor, but one which has few interests in the region; and of the telecommunications industry, one of the sectors that best reflects the astonishingly rapid changes associated with globalization. Each of these elements contributes to an increasingly thorough grasp of the nature and impact of FDI in the region as well as a fuller understanding of the phenomenon itself.

FOREWORD

Foreign Investment in Latin America and the Caribbean, 2000 Report uses the same analytical structure as the last two editions of Foreign Investment, which entails five main elements: (i) the interpretation of a selected aspect of FDI with a view to gaining a fuller understanding of the phenomenon as such or improving the approach we take to it; (ii) a presentation of the most recent statistical information available; (iii) a case study on a major FDI recipient country; (iv) a case study on a major investor country; and (v) a case study on an industry in the region in which FDI plays a significant role. This structure reflects the institutional view that, while official FDI statistics are clearly a necessary input for an analysis of FDI, other types of information that can only be provided by research into a range of individual cases at the country and sector levels are also required. The fact that this publication contains three chapters on specific cases and a single chapter on statistical information as such suggests that although examining selected experiences is a much more complex undertaking than analysing official statistics is, it also provides greater insight into the subject.

As part of the 2000 edition's exploration of business strategies used in the region, the case study on Chile presented in chapter II discusses strategies for obtaining raw materials and for seeking out national service markets. Chapter III looks into the question of whether or not there is in fact fairly little Japanese FDI in the region and, in the process, examines the efficiency-seeking strategy being used by Japanese electronics firms in

Mexico. Finally, the analysis of the telecommunications industry provided in chapter IV focuses on strategies for seeking out national markets.

A number of innovations have been introduced in 2000 Report which set it apart from earlier editions. In chapter I, changes have been made in the weightings of Latin America's 100 largest transnational corporations' consolidated sales based on the size of their stake in their affiliated companies. This change has been made in order to provide a clearer picture of the actual presence maintained by transnational corporations in the region. In addition, statistical information on the transnationalization process in the region during the 1990s is presented in the form of two- or three-year averages in order to bring out the structural aspects of this phenomenon and thus differentiate between them and its more short-term or cyclical facets. The effort made in chapter III to explain why so little foreign direct investment (FDI) is coming from a specified investor country (Japan) represents a further innovation. Another first in this year's edition is the commencement of an in-depth consideration of FDI in services, in this case as it relates to the telecommunication industry (see chapter IV).

The Commission would once again like to request the on-going collaboration of transnational corporations, governmental organizations, business associations and academic institutions in the prodigious task of identifying, gathering, processing and analysing statistical data and background information on different countries' and industries' experiences in this area. We would also like to thank, in particular, the Japan External Trade Organization (JETRO) for the extremely valuable inputs which its staff provided for chapter III of this report.

José Antonio Ocampo
Executive Secretary
ECLAC

SUMMARY AND CONCLUSIONS

Foreign Investment in Latin America and the Caribbean, 2000 Report begins with a discussion of the challenges analysed in the preceding two editions the statistical challenge and the normative challenge and then adds a third: the regulatory challenge. The issues to be confronted in these areas pose different sorts of complications for decision-makers concerned with the role that foreign direct investment (FDI) should play in the countries' development processes. This is due to the following factors:

- The major differences to be found in terms of methodologies, accounting procedures, definitions and coverage of official information on FDI make it more difficult to arrive at an understanding of the phenomenon and, hence, to adopt policy decisions on the subject. The statistical challenge facing the region involves upgrading official statistics and supplementing them with other sorts of information.
- Fierce competition for FDI has led to the proliferation of agreements aimed at promoting and providing guarantees for FDI. These instruments include bilateral treaties, free trade agreements (a number of which contain chapters on investment), regional negotiations (e.g., the Negotiating Groups of the Free Trade Area of the Americas) and multilateral arrangements (the obligations assumed under the General Agreement on Trade in Services (GATS) within the framework of the World Trade Organization, trade-related investment measures, the Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement, etc.). For many countries, these instruments are part of a fairly undiscriminating policy of attracting as much FDI as possible (the "more is better" approach); as a result, countries often find that they have assumed obligations which, further down the road, will place limitations on their own development programmes. The normative challenge, for its part, calls for a refinement of FDI policy and its alignment with the countries' larger development plans.
- Recently, FDI flows are increasingly being channeled into liberalized services sectors. In situations where experience with such flows is limited, where regulatory systems and institutions are weak, and where resources are scarce, the implementation of FDI policies of the "more is better" type can cause serious problems in service industries that are not prepared to receive large FDI inflows. This type of situation often arises when the dominant incumbent is privatized. In such cases the regulatory challenge entails setting up a modern, effective regulatory framework before service activities are opened up to FDI.

In order to meet these challenges, a more integral FDI policy is needed that defines the national government's development priorities, the role that FDI is expected to play and the instruments or mechanisms for channelling FDI based on those priorities. A policy of this sort may be a better choice for developing countries than a "more is better" policy or, at the least, can serve to complement such an approach.

1. Regional outlook

In 2000, worldwide FDI flows topped US$ 1.1 trillion, which was nearly 14% more than in 1999 and over three times as much as in 1995. These figures indicate that the global expansion of transnational corporations (TNCs) remained on course during the first year of the new century. The geographic distribution of FDI flows in 2000 also held to the trend towards an increasing concentration in developed countries which had emerged in the second half of the 1990s. In fact, virtually the entire annual increase in world FDI flows in 2000 was accounted for by flows to developed countries, which, at nearly US$ 900 billion in 2000, were 17% higher than in 1999. In the developed world, the main two recipients were the United States and Germany, with inflows of around US$ 250 billion each, followed by such European countries as the United Kingdom, Belgium, France and the Netherlands. FDI flows to developing countries in 2000, on the other hand, remained fairly close to their 1999 levels, at around US$ 190 billion. This meant that the developing countries' share of worldwide FDI inflows shrank from over one third of the total in 1995 to less than one fifth in 2000.

Among all the developing countries, almost 95% of FDI flows in 2000 were concentrated in just two regions: Asia, and Latin America and the Caribbean. In 2000 the developing Asian countries received over US$ 100 billion in FDI, which was an increase of more than 10% over the 1999 figure. Although some countries that had been hit hard by the 1997 crisis, such as the Republic of Korea and Malaysia, have regained their attractiveness as an investment site, this annual increase in FDI flows is largely a reflection of how swiftly direct investment is growing in the People's Republic of China. In fact, flows to mainland China and to the Special Administrative Region of Hong Kong, taken together, amounted to over 70% of the subregion's total FDI inflows.

After having trebled in the second half of the 1990s, annual FDI flows to Latin America and the Caribbean fell in 2000. The inflows for the year still amounted to more than US$ 74 billion, but this nonetheless represented a drop of more than 20% from the 1999 level of over US$ 93 billion. However, despite this downturn, the figure recorded for 2000 was far more than three times as high as the average annual flow during 1990-1994 and was 16% higher than the average annual flow in the second half of the decade. As a matter of fact, the decline in FDI flows to the region in 2000 was primarily a result of circumstantial factors rather than constituting a change in trend, since just three transactions in 1999 — the acquisitions of Yacimientos Petrolíferos Fiscales (YPF) in Argentina by the Spanish firm Repsol for US$ 15.168 billion and of Endesa and Enersis in Chile by Endesa-España for a total of US$ 3.55 billion — are equal to the total difference between FDI flows to Latin America and the Caribbean in 1999 and in 2000. The member countries of the Latin American Integration Association (LAIA) received an estimated flow of over US$ 67 billion in 2000, or somewhat more than 90% of the FDI flows received by the region as a whole, while the Central American and Caribbean countries accounted for around 6% of the region's total estimated inflows.

The level of FDI flows received by the two largest members of LAIA — Brazil and Mexico — in 2000 (which accounted for 60% of total LAIA inflows) was more or less than same as in earlier years. The approximately US$ 30 billion in FDI that went to Brazil was heavily concentrated in the restructuring of service activities, while the US$ 13 billion in FDI that entered Mexico was mainly divided between investments in manufacturing and acquisitions in the financial sector. Argentina and Chile saw sharp decreases in FDI as compared to 1999. Although in both of these cases part of the decline can be attributed to the influence that the large-scale transactions mentioned earlier had on flows in 1999, there are a number of medium-term factors that have raised doubts as to the future growth of FDI in those countries. FDI flows in 2000 to some Andean countries, such as Colombia and Peru, were below the averages for the preceding years owing to recent bouts of political and economic instability, but Venezuela's inflows rose considerably as a result of major acquisitions in the

LATIN AMERICA AND THE CARIBBEAN: NET INFLOWS OF FOREIGN DIRECT INVESTMENT, BY SUBREGION, 1990-2000

(Millions of dollars and percentages)

	1990-1994[a]	1995	1996	1997	1998	1999	1999 share (%)	2000[b]
1. Central America and the Caribbean	1 406	1 984	2 106	4 212	6 112	5 351	5.7	4 500
2. Caribbean financial centres	2 506	2 427	3 119	4 513	6 398	2 599	2.8	2 500
3. Latin American Integration Association (LAIA)	14 249	27 789	41 301	61 125	66 025	85 571	91.5	67 191
Argentina	2 982	5 315	6 522	8 755	6 670	23 579	25.2	11 957
Bolivia	85	393	474	731	957	1 016	1.1	695
Brazil	1 703	4 859	11 200	19 650	31 913	32 659	34.9	30 250
Chile	1 207	2 957	4 634	5 219	4 638	9 221	9.9	3 676
Colombia	818	968	3 113	5 638	2 961	1 140	1.2	1 340
Ecuador	293	470	491	625	814	690	0.7	740
Mexico	5 430	9 526	9 186	12 831	11 312	11 786	12.6	12 950
Paraguay	99	103	136	233	196	95	0.1	100
Peru	796	2 056	3 225	1 781	1 905	1 969	2.1	1 193
Uruguay	…	157	137	126	164	229	0.2	180
Venezuela	836	985	2 183	5 536	4 495	3 187	3.4	4 110
Total (1+2+3)	**18 162**	**32 200**	**46 526**	**69 850**	**78 535**	**93 521**	**100.0**	**74 191**

Source: ECLAC, Unit on Investment and Corporate Strategies of the Division of Production, Productivity and Management, on the basis of information provided by the International Monetary Fund (IMF); United Nations Conference on Trade and Development (UNCTAD), World Investment Report, 2000. Cross-border Mergers and Acquisitions and Development, New York; and the central banks of the individual countries.

[a] Annual average.

[b] Estimates prepared by ECLAC, Unit on Investment and Corporate Strategies of the Division of Production, Productivity and Management, on the basis of information provided by the central banks of the individual countries.

services sector. In Central America and the Caribbean, the main recipients in 1999 (estimates for the individual countries in this subregion for 2000 are not available) were the Dominican Republic (25% of the subregional total), Costa Rica (12%), Trinidad and Tobago (12%), Jamaica (10%) and Panama (10%).

From a medium-term perspective, the copious amounts of FDI that flowed into Latin America and the Caribbean in the 1990s brought about thorough-going changes in the countries' and subregions' competitiveness and in the structure of industrial property in the region as a whole. Changes in competition at the national or subregional level have been spurred by the operations of TNCs in the region and have been strongly influenced by the business strategies pursued by these firms in the various countries. In countries or subregions where much of the FDI received in the 1990s was made up of efficiency-seeking investments used to integrate regional production facilities into larger manufacturing networks, as in Mexico and the Caribbean basin, international competitiveness has increased in industries that play a fairly dynamic role in world trade. On the other hand, in countries and subregions where the main focus was on traditional natural resource-seeking activities or manufacturing activities catering to local or subregional markets, as in much of South America, FDI inflows in the 1990s did not generate any significant improvement in international competitiveness. In both regions, a sizeable and increasing share of FDI in the 1990s was

channeled into services sectors as investors sought to take advantage of the liberalization, privatization and deregulation of these industries.

The structure of industrial property in the region underwent an intensive transnationalization process in the 1990s. TNCs expanded their share of the region's 500 largest firms' total sales from 27% in 1990-1992 to 43% in 1998-1999. During the same period, privately-owned local firms' share of these companies' total sales remained constant, at slightly under 40%, while State-owned enterprises saw their share shrink from 33% to 19%. The transnationalization of industrial property in the region in the 1990s was particularly evident in the manufacturing sector. Between 1990-1992 and 1998-1999, the percentage of the total sales of the region's 100 largest manufacturers corresponding to TNCs climbed from 53% to 63%, privately-owned local firms' share fell from 43% to 37%, and the proportion accounted for by State-owned companies dropped from 4% to just 1%. In the case of the region's 200 largest exporters, the share of those exports carried out by TNCs jumped from 29% in 1995 to 41% in 1999, whereas privately-owned local firms saw their share slip from 37% to 33% and the percentage accounted for by State-run enterprises declined from 34% in 1995 to 26% in 1999.

An analysis of the consolidated sales of the 100 largest TNCs in the region shows European firms to be in the forefront. In 1999, firms from the European Union accounted for 50% of regional TNC sales, those from the United States generated 43% of those sales, Swiss companies had a 5% share and the rest was divided up among Japanese, Australian and Canadian firms. As for their regional distribution, TNC operations were heavily concentrated in the three largest countries, with 34% of their sales being in Brazil, 30% in Mexico and 25% in Argentina. When disaggregated by industrial category, the figures show that one fourth of TNC sales were in the automotive industry and another 50% was divided up among five industries: electronics (11% of the total), food and beverages (11%), commerce (10%), telecommunications (10%) and petroleum (10%). Telefónica-España was the TNC with the highest consolidated sales figure in the region in 1999, followed by the United States automaker, General Motors, and other motor vehicle manufacturers that occupied five of the top eight spots in the ranking. The ninth and tenth places were held by oil companies Repsol-YPF (Spain) and Exxon Mobil (United States), and the twelfth and thirteenth by the electrical power companies Endesa-España and AES Corporation, respectively. In commerce, the French firm Carrefour was in fifth place; among electronics firms, IBM, Motorola and Intel were some of the high-ranking United States companies, while in the food and beverages category, Nestlé (Switzerland) and Unilever (United Kingdom/ Netherlands) were among the leaders.

From the standpoint of the various modes of investment, during the last two years the global economy has experienced a huge wave of cross-border mergers and acquisitions. Worldwide, there was a fourfold increase in the sum spent on cross-border mergers and acquisitions between 1995 and 1999, when the total reached US$ 720 billion. This upswing reflects an intensive global move to restructure production which is highly concentrated in developed countries and industries whose competitive parameters have been altered by the institutional and technological changes associated with globalization. The steps being taken to open up trade and investment flows and to liberalize many industries, together with the growing degree of cultural interchange occurring across borders, has generated a trend towards market growth and standardization that has spurred the expansion of firms that are striving to reduce competition in their traditional markets and seek profits in new ones. The speed and strategic nature of technological change in some industries has also fostered the creation of huge conglomerates capable of investing heavily in research and development, while the digital and telecommunications revolution has made it easier to manage increasingly large and diversified production units. Consequently, at the global level, the process of change associated with merger and acquisition activity has been led by highly capital or innovation-intensive industries, such as the automotive industry, pharmaceuticals, telecommunications, electricity or banking, and by industries whose market power is primarily based on marketing and distribution, such as the food and beverage and the tobacco industries.

In quantitative terms, Latin America has been an active participant in this process. While the extremely important role played by privatization as a vehicle for foreign capital's penetration into the region was a hallmark of the second half of the 1990s, during the past two years there has been a boom in mergers and acquisitions of private firms. In 1999-2000, privatizations, concessions or tenders of public enterprises valued at over US$ 100 million each totalled US$ 19.5 billion, of which US$ 4.7 billion corresponded to primary-sector firms and US$ 14.8 billion to the privatization of services (no privatizations of manufacturing enterprises valued at over US$ 100 million took place during the period under review). The largest privatization operations undertaken during this period included the Spanish firm Repsol's purchase of

15% of Argentina's Yacimientos Petrolíferos Fiscales (YPF) in 1999 for more than US$ 2 billion, the concession awarded in 2000 to a consortium of Argentine, United States and Korean firms for the development of the Camisea gasfields in Peru for US$ 1.6 billion and the acquisition by Banco Santander Central Hispano (BSCH) of a controlling interest in Banco de Estado de São Paulo (Banespa) in 2000 for US$ 3.55 billion.

A large portion of the funds used for mergers and acquisitions of private firms in 1999-2000 was concentrated in the services sector, while the primary sector's share was somewhat smaller and the manufacturing sector's was very limited. One of the largest operations of this type in the two-year period under review was "Operation Veronica", the code name given to a US$ 20 billion series of acquisitions in which Telefónica España swapped its own shares for shares in its Argentine, Brazilian and Peruvian subsidiaries in order to increase its stake in those companies to close to 100%. A number of major Spanish banks were also actively involved in this process in the financial sectors of Argentina, Brazil, Chile and Mexico. This last country saw a sweeping reorganization of foreign banking operations in 2000, with BSCH acquiring Grupo Serfín for US$ 1.56 billion and Banco Bilbao Viscaya Argentaria (BBVA) putting up US$ 1.85 billion to merge its Mexican operations with Grupo Bancomer. In the electricity sector there were also a number of major acquisitions (by Endesa España in Chile and by AES Corporation in Argentina, Brazil, Chile and Venezuela) during this period. Within the primary sector, a large proportion of these funds were concentrated in a single operation: Repsol's 1999 acquisition of privately-held shares in YPF for more than US$ 13 billion. In the manufacturing sector, on the other hand, the most notable transactions involved light industry, especially in the food and beverages subsector.

Thus, although in quantitative terms Latin America has become part of the global process of change associated with mergers and acquisitions in recent years, the sectoral distribution of these operations raises some doubts as to the ultimate effects of this process on the region's international competitiveness. This is because even though the restructuring and consolidation of major service industries in Latin America through mergers and acquisitions can lead to an improvement in the quality of those services and hence boost the region's systemic competitiveness (although this also poses new challenges for regional regulatory agencies), the manufacturing sector's virtual absence from this process is a cause of concern. Not only is the level of resources used for mergers and acquisitions in Latin America's secondary sector much lower than it is in developed countries, but the relatively few operations of this sort that are carried out are also concentrated in technologically simple industries primarily catering to domestic or subregional markets. Accordingly, in the future it will be important for the countries of the region to attract TNCs and activities that can build upon the region's potential in industries playing a more dynamic role in international trade. This means that the individual countries will need to set out explicitly to identify, on a realistic basis, their potential competitive advantages in these types of industries and to design specific policies regarding those sectors that will fit in with each nation's larger development plans.

The Dominican Republic's recent experiences in this regard are quite interesting. This country has modified its FDI policies substantially in the last few years in order to bring them into line with its national development objectives and has been receiving increasingly abundant flows of FDI. These policy modifications have come in response both to changes in external conditions influencing the country and to a reassessment of how the various types of foreign investment affect its economy. Since the 1980s, Dominican policies on export processing zones (EPZs) had attracted TNC assembly industries and, as a result, various Dominican products particularly apparel had established a strong position in the United States market. In the 1990s, however, the Dominican Republic's competitiveness in these industries began to wane. In response, the Dominican authorities devised a novel policy package for TNC operations aimed at altering the structure of FDI in the country in a way that would boost its international competitiveness.

These changes have included an effort to promote FDI in high-technology industries, initiatives for using foreign investment to upgrade service infrastructure and enhance the economy's systemic competitiveness, and policies to encourage foreign tourism projects to use more national inputs. In the first of these areas, the government has taken the initiative and has contacted efficiency-seeking TNCs in high value-added sectors with a view to promoting investment. It is also building a "cyber park" to serve as a centre for training in engineering, electronics and robotics and industrial operations in such areas as software, hardware, electronics assembly, call centres, robotics and e-commerce. In an effort to boost the economy's systemic competitiveness, a series of legal reforms have been implemented in the last few years in order to clarify and streamline commercial operations as they relate to labour issues, taxation, tariffs, customs and legal procedures, and public enterprises. A

plan for attracting foreign funds in order to capitalize key public enterprises has also been developed. The participation of major TNCs in capitalization programmes in the electricity sector has been particularly noteworthy. In the tourism industry, efforts to set up joint ventures involving local and foreign firms have paved the way for new investments amounting to about 10% of the sector's total FDI.

2. Chile

FDI played various roles in Chile during the twentieth century as the country passed through different stages in its history. During the liberal regime in place prior to the crisis of the 1930s, FDI was almost wholly concentrated in mining and support services for this industry, in which the country had major comparative advantages. Then, in the 1950s, as the country embarked upon an import-substituting industrialization (ISI) process, a growing volume of FDI in manufacturing began to be added to these more traditional investment flows. The nationalization of large-scale mining enterprises and the agrarian reform of the 1960s and 1970s generated an environment that was extremely unattractive to FDI. The political and social underpinnings for this process were swept away by the 1973 military coup, however, which ushered in a new era of economic liberalism entailing extensive market reforms and highly pro-FDI economic policies. The country's return to democracy in the 1990s was not accompanied by any major change in the broad lines of economic policy; what is more, it was coupled with a positive macroeconomic performance and served to reinforce political guarantees of the stability required by foreign investors.

Given these conditions, FDI flows to Chile surged during the 1990s, climbing from an annual average of US$ 720 million in 1985-1989 to over US$ 5 billion annually in 1995-1999. The buoyancy of FDI during the decade was also marked by changes in the means of entry used by foreign investors and by new sectoral developments. In the second half of the 1980s, debt-equity swaps (known as "Chapter XIX swaps"), which enjoyed large implicit subsidies, were the most popular investment modality. In the 1990s, on the other hand, the rise in Chilean debt paper to near-parity levels on international secondary markets put an end to that subsidy and prompted investors to return to more traditional modes of investment (DL 600). In addition, whereas in the first half of the decade investments were mainly channeled into greenfield projects, during the second half FDI was heavily concentrated in acquisitions of private firms.

These differences are also related to a number of sectoral developments. Viewed from this standpoint, the 1990s can be divided into two halves. As a carryover from the patterns seen in the 1980s, in 1990-1995 most of the TNCs that entered the country were drawn there by the possibility of obtaining raw materials, and FDI was therefore concentrated in activities linked to Chile's natural resource-based comparative advantages. Mining consequently accounted for 58% of the total, services for only 24% and manufacturing (in many cases, natural resource- processing industries) for 15%. These figures shifted in the second half of the decade as the operations of TNCs in Chile were redirected towards services as a means of taking advantage of the domestic market's growth. Thus, in this period FDI was closely linked to large-scale acquisitions in the electricity, telecommunications and banking sectors and to public-utility operating concessions. During these years services accounted for nearly two thirds of total FDI, mining's share shrank to 24% and manufacturing was the destination for 10% of these investment flows. This change in the sectoral structure of investment also led to a change in the geographical distribution of investment sources. In the first half of the 1990s, two thirds of investment funds came from North America (United States and Canada) and only 15% from the European Union. In 1995-1999, however, flows from North America came to just 37% of the total, while those from the European Union amounted to 45%. Within Europe, the largest investor was Spain, whose large-scale acquisitions of Chilean utilities accounted for 30% of the flows during this period.

The heavy investment in the mining sector seen during the first half of the 1990s was attributable to the very significant natural advantages that the country has to offer large-scale mining concerns (especially in the case of copper), the markedly pro-FDI laws that were in place in Chile during the military regime, technological advances in the industry and favourable market conditions. This situation dovetailed with the expansion strategies being pursued at the time by world-class

mining enterprises such as Phelps Dodge Corporation (United States), Placer Dome, Falconbridge and Rio Alcom (Canada), Rio Tinto Zinc and Anglo American (United Kingdom) and Broken Hill Proprietary (Australia), and the combination of these factors spurred such firms to engage in an ambitious investment drive in the Chilean mining sector, and especially in the copper industry. These investments helped drive up Chilean copper production by an annual average rate of 12.3% during the 1990s, thus hiking the country's share in world copper output from 18% in 1990 to 30% by 1999.

Foreign investors have also taken part in a number of other interesting developments linked to Chile's natural resources. One case in point is the participation of foreign investors in the development of the forestry sector and the forest products industry (particularly wood pulp) in the second half of the 1980s. Large enterprises (mainly from North America and New Zealand) used debt-equity swaps to acquire forestry assets in Chile and formed partnerships with local investors to develop them. This process, which led to the rapid growth of the sector and its exports in the first half of the 1990s, came to an end in the second half of the decade as these alliances were discontinued and the foreign firms sold their shares to local corporate groups. In the fishery sector, by contrast, local investors dominate the low value-added segments associated with fishmeal production, but foreign investors are gaining ground in higher value-added segments, especially the salmon industry. Foreign (Norwegian, Dutch and Canadian) firms invested heavily in this area of activity which had originally been developed with the help of strong State support in the 1990s and now generate 40% of the country's output. The strength of this sector during the decade has been clearly reflected in its export performance, as the sector's share of total Chilean exports jumped from 1.8% in 1991 to 5.3% in 2000.

Other processing industries in which foreign firms have been a significant factor in recent decades include the production of fresh fruit for export and the wine industry. Large TNCs have played a very important role in the swift development of fresh fruit exports in the last few decades by linking up small and medium-scale local producers, centralizing selection, packaging, refrigeration and pre-export transport, and marketing the fruit abroad. As a result, in the 1999/2000 season, the four largest TNCs (three based in the United States and one Italian firm) accounted for nearly 30% of all fresh fruit exports, which in turn represent over 8% of Chile's total exports. Chile's burgeoning wine industry has also received hefty foreign investments in recent years, chiefly through partnerships with local vineyards for the production of relatively fine vintage wines capable of competing in high-end segments of the international market.

The second half of the 1990s, as noted earlier, has been marked by a preponderance of foreign investment in Chile's service industries. Unlike what occurred in other countries of the region, most of Chile's major State-run utilities were privatized early on, in the 1980s and the beginning of the 1990s, and the development of these service activities was primarily carried out at a later stage by private local investors. The recent wave of foreign investment in this sector has consequently been heavily concentrated in private acquisitions. This situation is most clearly illustrated by the electrical power industry. Most of Chile's electricity companies were privatized in the late 1980s, and during the 1990s they rapidly expanded their operations in the country and in the region as a whole. This expansion drive was conducted under the guidance of private Chilean investors which formed conglomerates that have subsequently maintained a major subregional presence. Then, in the last two years, these conglomerates attracted the attention of the two main TNC players operating in this sector within the region: Endesa España and AES Corporation of the United States. In 1999, Endesa España acquired controlling stakes, in rapid succession, in Enersis and then in Endesa Chile for more than US$ 3.5 billion, and in 2000 AES Corporation acquired Gener for US$ 1.3 billion. Thus, the regional expansion strategies of these major TNCs radically altered the ownership structure of Chile's electricity sector in the space of just two years.

Another service industry that has been a major recipient of foreign investment is telecommunications. Steps to reform this sector in Chile began early on, in the 1980s, and ultimately led to the privatization of the major State enterprises in the sector the Empresa Nacional de Telecomunicaciones (Entel) and the Compañía de Teléfonos de Chile (CTC) in the second half of the decade and to the increasing involvement of foreign investors in their ownership and management during the 1990s. Therefore, although local investors played a predominant role in the privatization of Entel, a process which spanned the years from 1986 to 1992, the company is now firmly controlled by Telecom Italia. CTC was sold to the Australian Bond Corporation in 1988, but this firm's lack of experience and capacity in the sector led it to sell its stake (slightly less than 50%) in 1990 to Telefónica de España, which retains control over the company. During the 1990s Telefónica, along with other major TNCs in the sector, used Chile as a testing ground for its expansion into the rest of the region and invested large amounts in various segments of its

telecommunications industry over the course of the decade. As a result, today a number of large-scale operators, such as Telefónica de España, Telecom Italia and BellSouth (United States), are active in the sector.

The Chilean banking sector is another service industry that has been transformed by foreign investors in recent years. A large number of foreign banks moved into this sector during the 1990s, including Spanish banks such as Banco Santander and Banco Central Hispano, as well as Citibank (United States), Chase Manhattan (United States), BankBoston (United States) and the Bank of Nova Scotia (Canada) and institutions from other countries. More recently, the concentration of ownership in Chile's banking industry has also been heightened by the merger of Banco Santander and Banco Central Hispano in Spain to form Banco Santander Central Hispano (BSCH). These developments illustrate how events outside the region can influence national industries in today's globalized world.

The sanitation industry is yet another area of Chile's services sector in which foreign investors were quite active in the late 1990s. This industry had undergone reforms in the late 1980s and early 1990s, but it was not until 1998 that its regulatory system was modified to open the door to private firms. Between 1998 and 2000 a series of operating concessions were auctioned off to private (mainly foreign) enterprises for a total of over US$ 1.6 billion.

In sum, foreign investment in Chile has been highly concentrated in two main areas during the last two decades. In the 1980s and first half of the 1990s, FDI was mainly channeled into the development of export activities concerned with tapping and processing natural resources. Since that time foreign investors have steadily been moving into the higher value-added segments of these areas of activity, with the exception of mining. During the second half of the 1990s, by contrast, investment was concentrated in the acquisition of firms in major service industries. However, the declining pace of some of the main economic activities involved in utilizing natural resources and the swiftly progressing transnationalization of the country's services sector raise serious doubts as to the future growth of foreign investment and its potential impact on the nation's development. These concerns should be taken into consideration when analysing the Chilean authorities' as yet incipient efforts to attract new foreign investment in more technologically sophisticated sectors.

3. Japan

During the twentieth century, Japan experienced a process of rapid development and modernization, becoming the second most important industrial power in the world. Step by step, Japan caught up with and overtook countries whose industrialization had begun much earlier, often in areas in which the other countries had been leaders for many years. Especially worth noting was its performance vis-à-vis the United Kingdom, in the textile industry; the United States, in the automobile industry and production of goods for mass consumption; and Germany, in the manufacture of industrial machinery. Thus, this Asian country managed to specialize in certain fast-growing sectors through a process of "catching up" to and assimilation of foreign technology and modernization at the local level which included the adoption of innovative labour relations and organizational structures supported by a platform of high-quality public and educational services.

In the course of this industrialization process that took place during the second half of the twentieth century, there were at least three waves of foreign direct investment from Japan. The first was spearheaded by general trading companies and was mainly geared towards providing the natural resources needed for local industrialization efforts. The second wave, during the 1970s, was associated with the search for foreign markets on the part of manufacturing companies, particularly in the electronics industry. The third wave also involved manufacturing companies, but this time they invested much larger sums, with a view to setting up internationally integrated production systems organized at the regional level, particularly in the automotive industry. Although Latin America and the Caribbean received a substantial percentage of the relatively low flows of Japanese FDI during the first wave of investments, the region's share was not significant during the last two stages, in which investments were concentrated in North America, Asia and Europe. Thus, except for Mexico, Latin America received a very small share of the large amounts of FDI from Japanese manufacturing companies during the final decades of the twentieth century.

This situation was caused by a number of factors of a purely regional nature which acted in combination with circumstances in other regions and with the particular way that Japanese transnational corporations operate in different sectors. As regards regional conditions, Japanese manufacturing investments in search of national markets were made at a time when many countries in the region were beginning to realize (in the late 1970s) that their import-substitution industrialization model had outrun its usefulness, or when they were suffering the effects of the external debt crisis of the 1980s. The explosion of FDI in search of efficiency, on the other hand, occurred when much of the region had opened up to international trade and this, combined with the absence of policies to encourage manufacturing FDI, led the Japanese corporations to choose to supply the region through exports. The case of Mexico was an exception, inasmuch as after its entry into the United States market through the North American Free Trade Agreement (NAFTA), this country has often been included by Japanese manufacturing companies in their integrated North American production systems, particularly through assembly operations. The rest of the region, however, has not played a significant role in the internationally integrated operations of the Japanese companies. As far as other regions are concerned, the aggressive policies adopted over the last three decades by the Asian developing countries to attract Japanese manufacturing FDI, stand in sharp contrast with the absence of such policies in Latin America. This situation is further illustrated by an analysis of world and regional FDI flows from some Japanese manufacturing industries in recent decades.

The Japanese automobile industry is a good example. Although this industry generated strong FDI flows in the final decades of the twentieth century, and some of the main Japanese auto makers have been present in Latin America for a long time, these companies have not shown much interest in expanding their regional operations or incorporating them into their integrated production system. Thus, although some Japanese transnational auto makers that were quite active in the 1990s, such as Toyota, Honda and Nissan, considerably expanded their integrated operations at the global level during that period, this growth was concentrated in the major markets of North America, Asia and Europe, with the region being practically left out of the process. Again, the only exception was Mexico, where these companies made some investments in order to take advantage of the special access Mexico has to the expanded North American market. The Japanese auto makers that still operate in the larger Mercosur countries, on the other hand, have not been included in broader integrated production networks; in fact, they have grown very little in recent years, and they still follow the traditional approach of seeking access to local markets.

The Japanese electronics industry developed more or less along the same lines as the automobile industry; during the 1990s, it became even more dependent on integrated international production systems. As far as foreign investments are concerned, there were also differences between the way Sony and Matsushita Electric Co. operated in North America, Asia and Europe, where most production activity was concentrated outside of Japan, and in Latin America. Within the region, there is also a clear difference between Mexico, which is included in the integrated production systems these companies have set up for North America, and the rest of the region. Indeed, both of these companies operate large production units in northern Mexico (mainly Tijuana) which are strongly integrated with the corresponding administration, production, and research and development centres in the United States. In the rest of the region, however, there has been no international integration of the Japanese electronics industry. Both these companies supply finished products for export to the rest of the region from their regional sales bases in Miami and Panama. The exception to this general rule is that of the assembly units in free trade zones in other countries, especially Brazil, which produce for the local market.

The experience of non-manufacturing sectors with Japanese FDI in the region has been different in some respect. A good example of the more traditional Japanese strategy of investing in the region in search of natural resources is that of the Mitsubishi trading company, the seventh largest in the world in terms of sales for 1999 and the second largest in Japan. Although its operations in the region are relatively smaller as a share of its global investments, this company owns mining, oil and energy operations which are significant from the regional perspective, in Argentina, Brazil, Chile, Peru and Mexico. Despite its size, however, it represents a bygone period in terms of the international projection of Japanese corporations, one which seems doomed to disappear. This is reflected, among other things, in the fact that its global organization is set up by functions, in sharp contrast to the geographical organizational model that has been adopted by the more dynamic Japanese manufacturing companies in recent decades.

In the services sector, the telecommunications company NTT-DoCoMo is one of only a few Japanese utilities that operate in the region. It will be interesting to see if this company's recent investments in mobile telephony in Brazil signal a new stage of greater Japanese penetration in utilities in the region, where the

field is currently dominated by European and United States companies. However, its minimal investment in the region (only 1% of one company in Brazil) contrasts sharply with the strong position it has gained, during the same period, in mobile telephony in the United States, Asia and Europe. This seems to indicate that NTT-DoCoMo is pursuing geographic priorities that are similar to those of the Japanese manufacturing companies discussed earlier, for which Latin America clearly plays only a minor role.

The above examples would seem to support the premise that the relative absence of Japanese FDI in Latin America and the Caribbean is due to global factors, to regional circumstances and to the particular characteristics and modus operandi of the Japanese companies themselves.

4. Telecommunications

The telecommunications industry, which until recently was fairly stagnant and consisted mainly of basic (fixed-line) telephone services, usually provided by a single State-owned operator (except in the United States), has become a vibrant industry that has opened up to the dynamic digital world of broad-band technology, including the new generation of mobile cellular telephony, the Internet and multimedia. FDI has played a major role in the growth of this industry. During 1990-2000, this growth was evident in the fact that the number of main lines provided increased from 520 to 920 million, international traffic grew from 22 to 110 billion minutes, subscriptions to cellular telephone services rose from 11 to 650 million, and the Internet grew from 2.6 to 285 million users. Outside the industry itself, the expansion of the sector has had a highly positive effect, inasmuch as it has helped to improve the systemic competitiveness of national economies and facilitated their entry into the international economy.

At the same time, the globalization of telecommunications has also had a negative effect, especially since the risks to which the industry is exposed have increased considerably. In fact, the situation has become so serious that there is concern about the financial stability of the industry. Over the last year, many of the large world telecommunications corporations have lost half or more of their value on the stock market, their debts have increased to alarming proportions, and there are indications that they have been actively selling some of their assets. Two events the high prices brought at auctions of new licences for third-generation mobile cellular service in Europe and the fact that the United States Telecommunications Act (1996) had a negative impact on long-distance companies and failed to bring greater competition in the fixed-line segment which occurred at the same time that some large firms were facing serious problems brought to light the fact that both the authorities of the developed countries and the firms themselves have not always acted wisely. In some instances, the authorities themselves have created the situation by trying to charge maximum rates for licences; in other cases, the large corporations are at fault, as they have sometimes risked the future of their own company by engaging in technological speculation.

The globalization process reflects a long-term trend towards a single universal market. It has three main elements: technological change, increased competition and transnationalization of the main economic agents. These three aspects of the globalization process are clearly reflected in the telecommunications industry. Technological change is evident in the transition towards so-called third-generation telecommunications, which has facilitated the digital revolution by speeding up the transmission of voice, data, images and video. Many large corporations decided to bet their future on the expectation that their new killer applications, especially in mobile telephony and the Internet, would bring a commercial, financial and stock-exchange bonanza similar to the one created when first-generation analog networks were replaced by second-generation digital systems. So far, however, this course of action has only brought financial instability.

With regard to the increase in competition in the telecommunications industry, a distinction must be made between basic telephony and mobile cellular/ Internet/multimedia technology. In the case of the former, which is still the largest, although slowest, segment of the industry, competition has increased in the recently privatized public fixed-line monopolies in two ways. While partially or totally privatizing the main incumbents and agreeing to the formal commitments set forth in the fourth protocol to the General Agreement on Trade in Services of the World Trade Organization

(which promotes market-friendly regulation of private enterprise and competition) are important steps in this direction, with very few exceptions, the incumbents still control substantial shares of the domestic market. These operators have invested huge amounts of money to extend their fixed-line systems, and the increased competition in long-distance services has drastically cut costs. Mobile cellular telephony, on the other hand, has been highly competitive from the beginning, since its growth was not dependent upon the use of third-party networks as was the case with fixed-line telephony. It appears that mobile cellular telephones will soon replace fixed-line phones as the main type of telecommunications service. That is why proper management of licensing systems, along with reliable and functional regulatory institutions, will be essential to ensure that the positive impact prevails over the negative impact of globalization in the field of telecommunications.

The transnationalization of major economic agents has been particularly notable in the telecommunications industry. Moreover, a new class of transnational corporations has been created, i.e., that of partially privatized incumbents, such as Deutsche Telekom, France Telecom, Telefónica de España and Telmex de México, which have begun to establish international networks of their own. The technology race and increased competition have led to a strong move towards consolidation. Between 1990 and August 2000, 188 mergers and acquisitions took place in the sector, with individual price tags surpassing the US$ 1 billion mark and the total figure standing at US$ 1.282 trillion. In 2000, just one transaction the purchase of the German firm Mannesmann by the British firm Vodafone AirTouch involved more than US$ 200 billion. Strategic alliances or joint ventures in specific segments are also significant. Thus, regional consolidations in the main markets are already taking place throughout the world. The large North American and European corporations have been the quickest to make use of the option of setting up international systems.

The strategies of the major telecommunications firms are most apparent in the way they go about setting up their international operations. There have been two waves of FDI in telecommunications in Latin America. The first one was focused on privatizing the main operators of basic telephone services in countries such as Argentina, Mexico, Venezuela, Chile and Peru. In this manner, a few European firms, such as Telefónica de España and Telecom Italia, arrived on the scene. These companies began by operating fixed-line telephone services and then expanded their presence in a three-pronged effort: by entering other segments (such as mobile telephones, Internet, data), purchasing the shares they did not control in the local enterprise, and entering other countries, especially Brazil. Telefónica de España, for example, has grown considerably thanks to its assets purchases in Latin America over the last ten years. Through Operation Veronica, this firm has increased its share in its associated companies in the region, gaining full control of the most important firms in almost every case, to become the largest transnational corporation in Latin America, in terms of overall sales. Thus, a very significant part of these firms' international systems, which are not top ranked at the world level, are in Latin America.

A second wave of telecommunications FDI in the region seems to have started with the efforts of the corporations involved in globalization to gain a position on the market. The entry of Vodafone in Verizon Wireless (with the recently merged Bell Atlantic and GTE) seems to have brought a new rationale to GTE assets in Latin America (based on CDMA technology), particularly with the entry of Vodafone in Iusacell (Mexico), a mobile telephone company controlled by Verizon. Another example of a globalization strategy that includes Latin America is that of SBC Communications, Telmex (América Móvil) and Bell Canada International, which operate jointly under the name of Telecom Américas. In fact, this firm was created in order to integrate the separate platforms of these companies in Latin America, especially in mobile telephony, on the basis of TDMA technology. The merger of mobile cellular assets in the United States belonging to SBC and BellSouth owner of a broad range of digital mobile telephone services in the region could also lead to an association of its networks in the region.

Latin America's experience with the first wave of FDI in the telecommunications industry was not entirely positive. The priorities of the period to maximize the sales value of privatized State assets in some cases or to backstop a national champion in others did not facilitate progress in the sector as much as it might have. Buyers enjoyed long periods during which they held exclusive rights and kept the monopolistic rents earned from basic telephone services in exchange for investments aimed at expanding their national networks. In general, the lack of a clear vision regarding the development of telecommunications, the scant experience of national authorities, the absence of legislation to set up a regulatory framework for the telecommunications sector and the absence of independent regulatory institutions contributed to the meagre results achieved relative to the opportunities that were available. The next wave of FDI in

telecommunications offered the countries of the region an opportunity to attain greater consistency between the objectives of globalization-oriented corporate strategies and of national policy in the field of mobile telephony. In view of Brazil's success in improving the outcome of privatization of the Telebras system in 1998, thanks to its having learned from the experiences of other countries of the region, the governments of the Latin American countries would be well advised to do their homework before tackling the potential issue of licensing the new third-generation mobile telephony services.

A sound regulatory system will, of course, play a key role in ensuring satisfactory performance of the industry. Other countries would do well to learn from the Latin American experience, taking note of the fundamental issues involved. The authorities concerned will need to take a modern approach and decide what goals they want to pursue in dealing with the telecommunications industries and set priorities, for example, through the design of a national telecommunications programme. Legislation on telecommunications should be passed in order to ensure that the regulatory system has a solid legal basis and that its institutions are granted the necessary independence to function properly. Along the same lines, regulatory bodies must be given sufficient budgetary resources to perform their duties and hire qualified professional staff so as to guarantee the stability of the system. Contrary to the case with basic telephone services, new types of regulation will probably be needed for the mobile telephone/Internet/multimedia segment of the industry. It should then be possible to maximize the positive and minimize the negative effects of globalization in the telecommunications industry.

INTRODUCTION: A REGULATORY CHALLENGE

The ECLAC publication *Foreign Investment in Latin America and the Caribbean, 1998 Report* began with a reference to the very significant **statistical** challenge that faces decision-makers interested in making sense out of the large but heterogeneous amount of official information that is available on foreign direct investment (FDI). It points out that very serious differences in methodology, accounting practices, definitions and coverage of the principal official sources of statistical information result in a less than full understanding of FDI as an economic phenomenon. Policy-making in this field can become unnecessarily complex, given that the available official statistical information does not adequately reflect the real-world situation of FDI. ECLAC feels that the efforts made by international and national institutions to promote methodological convergence have been very valuable; nevertheless, much remains to be done. The statistical challenge to policy-makers is to improve official information and to supplement it with data from other sources in order to obtain a clearer picture of what is actually involved in FDI.

Another challenge of a **normative** nature was pointed out in Foreign Investment in Latin America and the Caribbean, 1999 Report. Policy-making by national authorities with regard to FDI has been complicated by the fact that there has been a proliferation of bilateral, plurilateral and multilateral agreements and negotiations aimed at promoting and protecting FDI through the establishment of basic legal norms designed to facilitate FDI flows in the context of the globalization process. This has produced a number of asymmetries, including those existing among countries at different levels of development. This, however, has created more confusion than clarity concerning the role of FDI in national development policy. Some governments have clearly felt that adhering to international investment agreements is a prerequisite for access to FDI. While there is obviously a need to harmonize international rules and norms on FDI with national legislation, it is also

clear that this must serve the interests of both capital-importing and capital-exporting countries. In other words, when concluding international investment agreements, developing countries face a basic challenge: how to link the goal of creating an appropriate, stable, predictable and transparent foreign direct investment policy framework that enables firms to meet their corporate objectives on the one hand, with that of retaining a margin of freedom necessary to pursue their national development objectives, on the other (UNCTAD, 1999a).

Interestingly, even the Multilateral Agreement on Investment (MAI) initiative of the Organisation for Economic Co-operation and Development (OECD) has not been implemented for a host of reasons, including differences of opinion within this group of capital-exporting countries (UNCTAD, 1999b). In this regard, the *1999 Report* suggests that it would be prudent to gain a better understanding of the foreign investment phenomenon itself and, in particular, of its relationship with trade and its impact on development,[1] before embarking on sophisticated and binding multilateral initiatives in favour of *all-inclusive* common rules. The normative challenge for policy-makers is to leave room for more complex FDI policies of a developmental nature that do more than simply attract FDI from a "more is better" perspective.

This year we would like to bring the reader's attention to what we refer to as the **regulatory** challenge associated with the surge of FDI in services. Regulation is generally associated with the prevention of monopolistic behaviour or with situations marked by severe market failures. The need for regulation is glaringly evident in markets involving natural monopolies, as in the case of public utilities and infrastructure, especially when such facilities are operated by private firms. Until the 1980s, the consensus view was that the predominant actors in these sectors should be public enterprises operating under the supervision of the relevant ministry. In the telecommunications sector a case of particular interest in this year's edition this system, whereby State-run firms were in charge of managing monopoly rents, started to break down in the 1980s as a consequence of the wave of revolutionary technological advances that was being headed up by the private sector. These developments began to call the sector's status as a "natural monopoly" increasingly into question as neoliberal economic thought and advocates of privatization began to become more and more influential. In the case of the Latin American countries, there was the added complication of the external debt and its implications in terms of public enterprises' ability to finance their operations, all of which severely limited their modernization and expansion efforts. Hence, as a result of the privatization of State-owned assets in the public utilities and infrastructure sector, which was ultimately carried out in a large number of countries, regulation has taken on a fundamental role in resource allocation in non-competitive situations.

In the latter part of the 1990s, global flows of FDI shifted heavily in favour of services in response to new strategies being used by transnational corporations (TNCs) seeking national market access in services undergoing liberalization, such as telecommunications, infrastructure services (electricity generation and distribution, gas distribution, water and sanitation services) and financial services, among others. The General Agreement on Trade in Services (GATS)[2] encouraged FDI in services through its fourth (basic telecommunications) and fifth (financial services) protocols, which established the multilateral rules for two of the main service sectors into which FDI flowed during the 1990s. In this regard, GATS may be thought of as a framework for a multilateral promotion and protection agreement on investment[3] in services. The privatization of State companies, State assets or State concessions was a driving force behind much of this FDI. The telecommunications industry is a good example.

Significant regulatory changes have been made in order to increase the role of market mechanisms in the telecommunications industry by eliminating entry

1 For an examination of the relative success of corporations and countries in using FDI to reach their goals in Latin America, see Mortimore (2000).

2 The GATS is the first set of multilaterally agreed and legally enforceable rules and disciplines ever negotiated to cover international trade in services. It contains three central elements: a framework of general rules and disciplines (presence of the service supplier and modes of delivery, national treatment, most-favoured-nation treatment, transparency, recognition of qualifications, payments, market access schedules and progressive liberalization); annexes addressing special conditions relating to the individual sectors covered (financial services, telecommunications and air transport services, plus one on the temporary movement of key personnel); and the national schedules of market access commitments.

3 We speak of "investment" rather than "trade" because of the supreme importance of one of the four modes of supply, i.e., *commercial presence* (a foreign company setting up subsidiaries or branches to provide services in another country) over the others, i.e., *cross-border supply* (services supplied from one country to another); *consumption abroad* (consumers or firms making use of a service in another country); and *presence of natural persons* (individuals travelling from their own countries to supply services in another). See http://www.wto.org.

barriers and redefining the role of public enterprises. Such changes were implemented as early as the mid-1980s in some of the main English-speaking countries (United States, 1984; United Kingdom, 1985; Canada, 1990; and Australia, 1991) and Japan (1986), and as of 1998 in the European Union (Boyland and Nicoletti, 2000; OECD, 1999a). One interesting lesson to be learned from the experience of the developed countries is that while benefits in the form of lower prices, improved quality and new services can be obtained relatively quickly through liberalization, changes in the market structure —specifically, reducing the market share of existing dominant basic telephony operators— come about at quite a slow pace. In the European Union, for example, between 1997 and 1999 the change in the incumbent's share was only from 99% to 96% (Commission of the European Communities, 2000). The introduction of competition into mobile telephony can be quite rapid; for instance, in the European Union, between 1998 and 2000, the average mobile operator's market share fell from 65% to 50% (meaning that all competitors together then held a market share equal to that of the leader). It should be mentioned that the mobile market share of the fixed-line incumbents in most member countries of the European Union is considerable (in the 40%-60% range).

In the United States, the monopoly provider —AT&T— was broken up into seven Regional Bell Operating Companies or "Baby Bells" in 1984, and the 1996 Telecommunications Act was aimed at promoting greater competition in local telephone service in exchange for access to long-distance service. Contrary to expectations, the seven Baby Bells were consolidated into just four providers, and by 2000, new-entrant competitive local exchange carriers had achieved a less than 7% share of the principal telephone lines in that market (FCC, 2000a). In the telecommunications sector, the experiences of both Europe and the United States suggest that it is important to distinguish between markets that are open to increased competition and the actual market structure when discussing the topic of competition.

The first stage of the market liberalization process in telecommunications produced a host of new and sticky regulatory issues. There has been an evolution from one kind of regulation in basic telephony (dealing with pricing, interconnection, tariff rebalancing, cross subsidies, cost accounting, resale, rights of way, leased lines, universal service needs, local loop unbundling)[4] to another kind of regulation in more competitive markets, such as mobile cellular telephony (determining spectrum allocation and the use, characteristics, number and duration of licenses, network expansion, convergence, data protection).[5] However, one of the most fundamental new issues has to do with the establishment and operations of the regulatory institutions themselves (OECD, May 2000). It has become increasingly clear that having more competitive service markets does not do away with the need for regulation, but rather that the evolution of regulatory requirements produces a need for continual upgrading and adaptation of the regulatory institutions themselves.

Dealing with some of the world's biggest TNCs has not been easy for regulators in developing countries, especially the smaller ones.[6] In comparison to their developed-country counterparts, these regulators are often poorly prepared for their new tasks in managing the transition from State to private-sector monopolies and then to increased competition. Moreover, the initially more competitive market conditions for mobile cellular communications require a completely different and unfamiliar set of regulations. Finally, unlike the situation in developed countries, where the sector's reorganization did not occur until after basic service coverage was virtually universal in both demographic and territorial terms, regulatory agencies in developing countries must also include the objective of attaining universal coverage in their restructuring plans; hence the need to implement a more dynamic expansion and development policy in the telecommunications sector. In other words, regulators in developing countries, which are generally characterized as possessing weaker institutions, less experience and fewer resources, must not only carry out traditional and new regulatory duties but must also square these tasks with development goals. Furthermore, in attempting to advance towards their development goals, these regulators often find themselves being squeezed between TNCs seeking to

4 See, for example, Chisari and Estache (1999), Guasch and Hahn (1997), Kelly (2000a), Battiston (2000), Molano (2000), OAS (2000), Rozas (2000), Benitez et al. (2000), Boyland and Nicoletti (2000) and Xavier (2000a).

5 See, for example, Kelly (2000b), Srivastava (2000), Carrasco (2000), Staple (2000), Valente da Silva (2000), Venegas (2000) and Xavier (2000b).

6 Cable and Wireless, a UK telecommunications company with extensive interests, including in the Caribbean Basin, was faced with a new kind of problem in 2000. The Organization of Eastern Caribbean States threatened to evict this monopoly telecommunications provider from four other islands if it persisted in withdrawing from St. Lucia. The Prime Minister of St. Lucia addressed the nation on this problem in February 2000 (*Total Telecom*, 2000a).

maintain monopoly rents in basic telephony or to acquire competitive advantages in mobile telephony, on the one hand, and their own government as it seeks to maximize the inflow of FDI from the sale of State assets or concessions, on the other.

The experience of the telecommunications industry in Latin America is illustrative in this regard (see chapter IV). Latin America is the region that has best demonstrated that FDI inflows can be greatly increased by privatizing incumbent national operators and opening up the telecommunications industry to foreign investment. Indeed, during the 1990s, FDI inflows resulting from privatization (US$ 40 billion) and new mobile licences (US$ 10 billion) have proved that point. Fully 22 of the 89 providers of basic telephone service that were privatized in the world during the 1990s are in Latin America. More than two thirds of the countries of the region have partially or totally privatized their State telephone companies (ITU, 2000). Thus, Latin America has demonstrated that opening up the telecommunications industry by privatizing State operators can attract huge inflows of FDI.

Unfortunately, as has been noted by the International Telecommunications Union (ITU, 2000), the initial success of privatization led policy-makers to believe that the solution to all their problems was to sell off State telephone operators. Although the situation has improved, Latin America is still faced with the difficult fact that no more than one third of all households in the region possess a telephone. The lack of competition and the lax performance requirements set for monopoly operators have caused prices to remain high. After the first few years following privatization, investment in fixed-line networks has fallen sharply in many countries.

The first round of privatizations in the telecommunications industry in Latin America produced substantial new FDI inflows from the sale of Entel-Argentina, Entel-Peru, CANTV (Venezuela) and part of Telmex (Mexico). In terms of value, those sales, which were carried out in the early 1990s, were some of the main cross-border acquisitions to take place in the Latin American telecommunications industry between 1990 and 2000. The current problems stem from the fact that the long periods of exclusive operation granted to foreign investors had the effect of considerably delaying competition from new entrants in the market for basic telephone services and that new regulatory institutions often were not created until *after* (long after, in some cases) the privatization process was complete. In essence, a State monopoly had been transformed into a private monopoly in exchange for some rather undemanding requirements for new investment in the fixed-line network.

Fortunately, other Latin American countries have had an opportunity to learn from the mistakes or shortcomings of the first round of privatization. Thus, in a region where many national authorities have demonstrated a marked preference for obtaining the highest price for State assets in the telecommunications sector rather than a conscientious and well-thought-out telecommunications policy aimed at achieving development goals in the sector, Brazil stands out as an interesting exception (Herrera, 1998a). The privatization of the Telebras system was preceded by the enactment of the 1997 Telecommunications Act. An interesting feature of the new telecommunications policy in Brazil was the decision to split the monopoly fixed-line network supplier (Telebras) into more manageable pieces during the privatization exercise. The privatization of State assets was conducted by means of relatively transparent auctions. Moreover, the national market was segmented along geographic lines, both fixed and mobile telephony were included in the privatization process, and competitor companies were immediately established to ensure a minimum level of competition in each area. Commitments to provide universal service coverage reflected national priorities. Finally, at a regulatory level, both national competition (CADE) and sectoral regulatory (ANATEL) authorities were set up in a simultaneous and coordinated way. The results were very positive both when measured by FDI inflows —for the sale of State assets and further (greenfield) investments in the modernization of the telecommunications system— and when evaluated in terms of national development goals in the sector. This case provides a good example of the fact that privatization works better when combined with more competition and better regulation (Wallsten, 1999).

This learning experience has given rise to significant changes in the competitive situation and the regulatory framework of the early privatizers (Argentina and Mexico) as the periods of exclusivity come to an end. It has also had an impact in other countries of the region. Trinidad and Tobago and Jamaica, for example, have decided to shorten the period of exclusive operation granted to the monopoly telephone service provider. Moreover, new regulators have been established throughout the region: 18 of the 22 regulators operating in Latin America in 2000 were created during the 1990s.

The **regulatory challenge** in Latin America, then, is to avoid the temptation to simply maximize FDI inflows by privatizing incumbent service operators, and instead to establish a coherent development policy for the sector that is aimed at simultaneously achieving corporate strategy objectives and national policy goals. There is

ample evidence that a clear game plan with measurable targets combined with more competition and better regulation are essential. With regard to regulatory frameworks, the experience of the telecommunications industry has demonstrated that better results have been obtained where the legislation on telecommunications establishes "an enforceable regulatory code" (Cowhey and Klimenko, 2000) which includes an independent and integrated regulatory entity equipped with sufficient human and financial resources to get the job done.[7] That lesson holds for other services as well. Good regulations help ensure that FDI inflows for basic services produce tangible local benefits rather than merely a change of ownership.

7 See Commission of the European Communities (2000) and OECD (2000). Web pages containing considerable material on regulatory issues in telecommunications include http://www.regulate.org, http://www.ahciet.net/regulac and http://www.regulatel.org.

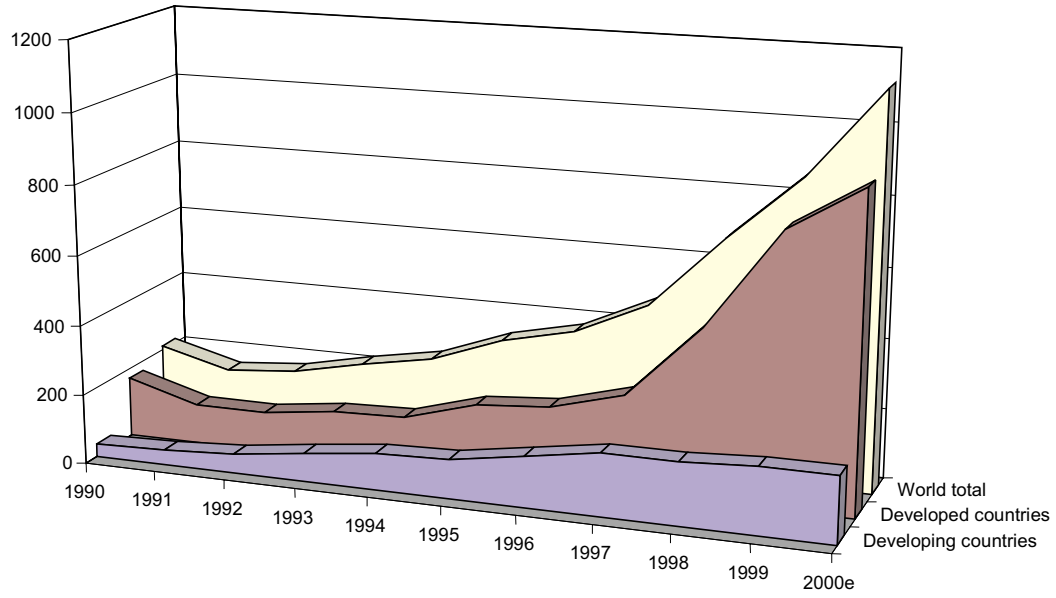
I. REGIONAL PANORAMA

A. RECENT TRENDS IN FOREIGN DIRECT INVESTMENT IN LATIN AMERICA AND THE CARIBBEAN

1. Overall foreign direct investment

One of the phenomena at the core of the current process of economic globalization is the expansion of transnational corporations (TNCs) through foreign direct investment (FDI). During the 1990s, the sales of TNC subsidiaries increased at a much faster rate than global exports, and their levels of production grew from 5% of total GDP in 1982 to 10% in 1999. FDI, which accounted for just 2% of gross fixed capital formation in 1980, represented 14% by 1999 (UNCTAD, 2000). Although the process dates from further back, FDI growth was particularly explosive in the second half of the 1990s. In fact, according to UNCTAD estimates, world flows of FDI in 2000 were more than US$ 1.1 trillion, which was an increase of almost 14% with respect to 1999 and equivalent to more than three times global FDI flows in 1995 (see figure I.1).

Figure I.1
NET INFLOW OF FOREIGN DIRECT INVESTMENT
(Billions of dollars)



Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2000: Cross-border Merger and Acquisitions and Development* (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20, and UNCTAD estimates.

e: Estimate.

In recent years most net FDI outflows have originated in developed countries. Of these, the United Kingdom overtook the United States as the main investor country in 1999, generating direct investment equivalent to almost US$ 200 billion, which is an increase of more than 67% on the 1998 figure.[8] The strong increase in British investment was largely a result of British companies' active policy of United States acquisitions, and the United Kingdom became the origin of over a third of FDI flows to the country. The United States was the second largest global investor in 1999, with flows equivalent to almost US$ 108 billion. Other major investors from the European Union in 1999 included Germany, which generated FDI flows of around US$ 50 billion, the Netherlands, with almost US$ 46 billion, and Spain, with around US$ 35 billion in 1999. Japan generated almost US$ 23 billion in FDI in 1999, which was similar to the country's average figure for the last five years (see chapter III on Japanese FDI).

Given the relative abundance of capital in developed countries, it is not surprising that they should be the main source of FDI. Analysis of the recipient regions of these investments, however, reveals a feature of the recent process of FDI expansion that is apparently more paradoxical: its heavy concentration in the developed world (see figure I.1). According to UNCTAD estimates, in 2000 the developed countries together attracted US$ 899 billion in FDI, which represents an increase of over 17% on the previous year's figure and accounts for four fifths of global net flows that year. The United States, which has enjoyed a very steady rate of economic expansion, continued to be the world's largest recipient

8 The most recent available information concerning the regions of origin of FDI flows come from the World Investment Report 2000. The data on destination regions correspond to the year 2000 and are taken from the latest UNCTAD estimates.

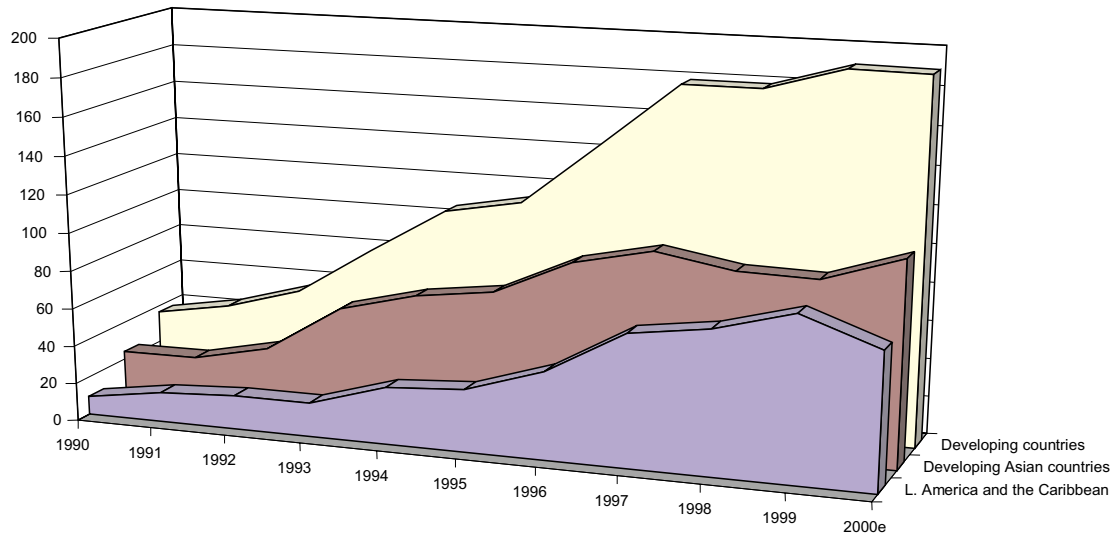
in 2000; it was closely followed by Germany, and in both cases, investments were estimated at around US$ 250 billion. In the case of Germany, a very large proportion of FDI in 2000 is attributable to a single operation (the acquisition of Mannesmann by the British company Vodafone Air Touch for over US$ 200 billion). Other recipients within the European Union have also seen FDI grow as their domestic industries have achieved greater regional consolidation. In 2000 the United Kingdom attracted inflows estimated at over US$ 106 billion in direct investment, Belgium and Luxembourg together received flows estimated at around US$ 39 billion, and Spain and Sweden accounted for around US$ 25 billion each. A special case within this regional block is Ireland which, despite its relatively small size, received inflows of over US$ 18 billion in 1999 and US$ 14 billion in 2000, which were highly concentrated in manufacturing. Japan attracted FDI inflows of almost US$ 6 billion in 2000, which was a relatively small sum for the size of the country but high compared to historical trends.

Together, the developing countries received an estimated total of almost US$ 190 billion in direct investment in 2000, which was similar to the 1999 figure. In 2000 the developing world thus continued the relative decline as an FDI recipient seen in recent years: FDI flows to developing countries decreased from one third of the global total in 1995 to less than a fifth in 2000, and since 1997 it has been clear that there is little hope of closing the gap between investments in developing and developed countries (see figure I.1). There are, however, notable differences in this respect within the developing world. At one extreme is the case of the African continent and the countries of Central Asia (former Soviet republics) which have recently become independent. Despite their large relative size, these regions were virtually isolated from the process of productive globalization via FDI in the 1990s. In both cases foreign direct investment is minimal in terms of the global totals and tends to be highly concentrated in extractive activities and in just a few countries. In striking contrast to these regions, the developing countries of South, East and South-East Asia and the Latin American countries experienced very robust absolute growth in FDI inflows over the last decade and together accounted for almost 95% of FDI flows to all developing regions in 2000 (see figure I.2).

With regard to developing countries in South, East and South-East Asia, the situation varies from one case to another. Among the countries worst affected by the Asian crisis, Indonesia continues to suffer the effects of the crisis as well as the effects of its own political instability on FDI, while Thailand recorded estimated flows similar to its pre-crisis average. The Republic of Korea, however, saw FDI inflows increase considerably after the crisis, as a result of major acquisitions of assets, with the figures soaring in both 1999 and 2000. The region as a whole recorded a considerable increase in FDI levels in 2000, attracting total flows of over US$ 100 billion. This recent trend is also attributable in great measure to the power of the People's Republic of China to draw flows. Excluding the Hong Kong Special Administrative Region of China, the country received FDI inflows estimated at US$ 39 billion in 2000, which was similar to the average of the five preceding years. In fact, while in the first half of the 1990s Asia was characterized by increasing flows to the ASEAN countries, the second half of the decade was marked by FDI inflows to the People's Republic of China. Another interesting feature of the regional pattern is the strong increase in flows to the Hong Kong Special Administrative Region (SAR) following its return to the People's Republic of China. The territory, which many investors (particularly persons of Chinese origin residing overseas) use as a stepping stone to continental China, received FDI flows estimated at over US$ 33 billion in 2000, which was over three times the annual FDI average received in the five-year period prior to its reversion to the People's Republic of China.

Compared with other developing regions, recent direct investment trends in Latin America also look promising. In fact, over the last decade FDI inflows to the region grew significantly, not only in absolute terms but also relative to the rest of the developing world, with the region's share of total FDI flows to developing countries growing from 29% in 1995 to 37% in 2000. This comparison, however, does not hold true for the region's share of total world FDI flows. Given the tendencies of recent flows to be concentrated in the developed world, as discussed earlier, the region's share in global flows plunged in 2000: FDI flows to Latin America represented 11% of global flows on average in the period 1995-1999, but in 2000 accounted for barely 6%. From a quantitative perspective, this would seem to indicate that, despite the recent strong flows of FDI to the region, Latin America is participating less actively in the global process of productive integration than in recent years. Even so, the potential benefits of this process are also very sensitive to the way in which different countries and regions participate in the world economy. The following section provides a detailed analysis of the situation in Latin America in 2000, mainly from a quantitative standpoint, while later sections will analyse the process of global productive integration in depth and study the region's involvement in this process.

Figure I.2
NET INFLOW OF FOREIGN DIRECT INVESTMENT
(Billions of dollars)



Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), World Investment Report 2000: Cross-border Merger and Acquisitions and Development (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20, and UNCTAD estimates.

e: Estimate.

2. Foreign direct investment in Latin America and the Caribbean: recent inflows and trends

After tripling between 1994 and 1999 and successfully surmounting the financial crisis of the late 1990s, annual inflows of foreign direct investment to Latin America and the Caribbean changed somewhat during the first year of the new decade. Estimated FDI inflows to the region amounted to little more than US$ 74 billion in 2000, which is a fall of more than 20% from the figure of over US$ 93 billion in FDI entering the region in 1999. From a medium-term perspective, however, this annual result should not necessarily be interpreted as a setback to the process of FDI expansion seen in recent years. Despite the annual fall, the flows which are estimated to have entered the region in 2000 more than tripled the average annual flows of the 1990-1994 period (see table I.1) and were almost 16% higher than the average annual inflows recorded during the second half of the decade. The decrease between the 1999 and 2000 figures is also largely a response to one-off elements from which real trends cannot reliably be read. Thus, if the resources from three extraordinary operations the acquisition of YPF in Argentina by the Spanish firm Repsol for US$ 15.168 billion and the acquisition of Endesa and Enersis in Chile by Endesa España for a total of US$3.55 billion (see chapter II) are subtracted from the total figure for 1999, then there is almost no difference in regional FDI between 1999 and 2000. As shown in table I.1, however, the regionwide situation masks some substantial differences between subregions.

Table I.1
LATIN AMERICA AND THE CARIBBEAN: NET INFLOW OF FOREIGN DIRECT INVESTMENT, BY SUBREGION, 1990-2000
(Millions of dollars)

	1990-1994[a]	1995	1996	1997	1998	1999	1995-1999[a]	2000[e]
1. ALADI	14 250	27 789	41 301	61 125	66 025	85 571	56 362	67 191
(Brazil)	1 703	4 859	11 200	19 650	31 913	32 659	20 056	30 250
(Mexico)	5 430	9 526	9 186	12 831	11 312	11 786	10 928	12 950
2. Central America and the Caribbean	1 406	1 984	2 106	4 212	6 112	5 351	3 953	4 500
3. Financial centres	2 506	2 427	3 119	4 513	6 398	2 599	3 811	2 500
Total	**18 162**	**32 200**	**46 526**	**69 850**	**78 535**	**93 521**	**64 126**	**74 191**

Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2000: Cross-border Merger and Acquisitions and Development* (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20, and the central banks of each country.

[a] Annual average.

[e] Estimates of the ECLAC Unit on Investment and Corporate Strategies, on the basis of information provided by the central bank of each country.

(a) FDI in LAIA countries

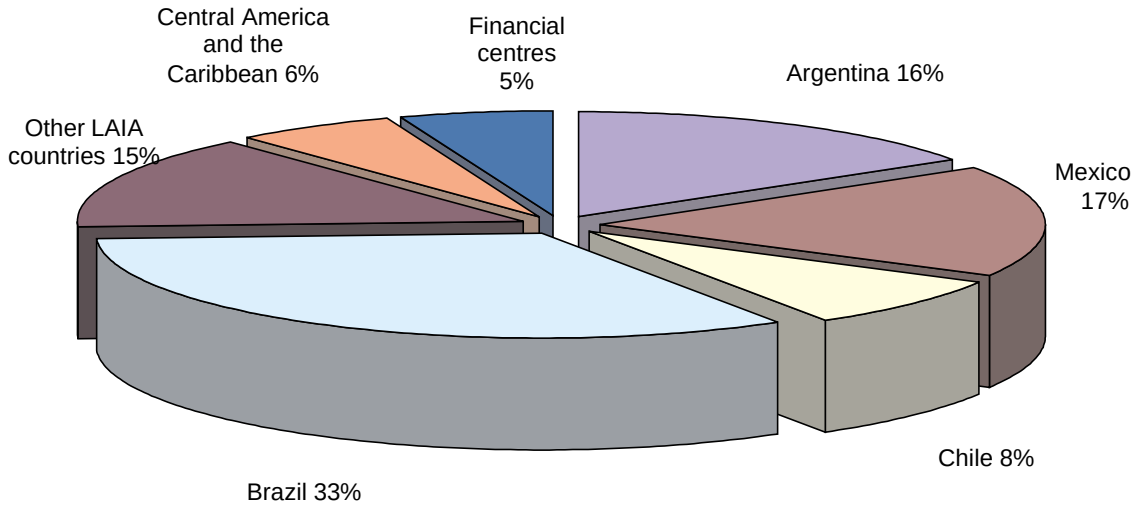
In 2000, the distribution of FDI flows to LAIA[9] were very favourable to Brazil and Mexico, which together accounted for almost two thirds of the total. The substantial share of the two largest countries in 2000 marks a major change with respect to the last five years of the 1990s, in which average flows to these two countries were barely more than half the subregional total. The obvious counterpart to this increase in the FDI share of the two largest LAIA countries is a fall in the relative participation of the rest of the South American countries in the regional total. The countries of the Andean Community (Bolivia, Colombia, Ecuador, Peru and Venezuela) reduced their share in total FDI flows to LAIA members from an average of 18% during the second half of the 1990s to around 12% in 2000. The other South American countries (Argentina, Chile, Paraguay and Uruguay) also saw their share of total FDI flows to LAIA fall, from 28% on average in the period 1995-1999 to around 25% in 2000. These changes in regional distribution during the first year of the new decade respond to national and subregional phenomena which will be discussed below.

(i) Mexico: manufactures remain stable and services receive new inflows

TNC activity in the Mexican economy grew very significantly during the 1990s (see ECLAC, 2000a, chapter II); this was reflected in a considerable expansion of FDI flows into the country. Although an exact comparison cannot be drawn, owing to changes in the methodology used to record flows, when the average yearly flows of the 1980s are used as a base, it becomes apparent that FDI flows to Mexico more than quadrupled between 1995 and 1999, to over US$ 10.5 billion per year on average. Another characteristic of inflows over this period was their relative stability. Thus, unlike the situation in other countries in the region, the level of yearly inflows to Mexico remained very stable in the period 1995-1999, not varying more than 20% in any single year. ECLAC estimates suggest that this trend was carried over into 2000, with flows of some US$ 13 billion

9 LAIA (Latin American Integration Association) is made up of Argentina, Brazil, Bolivia, Colombia, Chile, Cuba, Ecuador, Paraguay, Peru, Mexico, Uruguay and Venezuela. Given the lack of statistics for Cuba that are comparable to the rest of the countries, Cuba is not included in the LAIA references in this section.

Figure I.3
FOREIGN DIRECT INVESTMENT FLOWS TO LATIN AMERICA AND THE CARIBBEAN, 1995-2000[e]
(Percentages)



Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2000: Cross-border Merger and Acquisitions and Development* (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20, and the central banks of each country.

[e] Flows for 2000 are estimates.

during the year, which is an increase of just under 20% on the 1999 figure. This stability of FDI flows to Mexico is largely attributable to the particular way in which TNCs operate in Mexico, which reflects certain elements of the country's economic policy and geographic and industrial factors.

In common with almost all of the region, during the 1990s Mexico gradually liberalized the regulations governing FDI. Unlike other Latin American countries, however, Mexico also managed to become gradually integrated into the North American market during this period. The presence and operation of many TNCs in the country today is thus in great measure a result of the integration schemes established with the rest of the subregion, especially the North American Free Trade Agreement (NAFTA) with the United States. In combination with the geographical proximity of this market, the NAFTA framework and particularly the rules of origin has encouraged certain types of investment which other countries of the region do not receive (see ECLAC, 2000a, chapter II). This is particularly true for investment mainly from the United States in manufacturing industries that export their output to markets in the North, a practice which has been clearly reflected in sectoral and geographic patterns of recent FDI flows to Mexico. In fact, more than 60% of overall FDI between 1995 and the first semester of 2000 was directed at the manufacturing sector (see figure I.4) and over 65% of the total came from the United States (www.secofi.gob.mx).

Longstanding industrial conditions in Mexico also contributed to this phenomenon. The new investments served to modernize the industrial capacity developed in previous decades to supply the domestic market, and new capacity was installed to increase the international competitiveness of manufacturing sectors such as motor vehicles, electronics and wearing apparel, thus enabling Mexico's manufactures to penetrate deeply into the

Table I.2
LAIA: NET INFLOW OF FOREIGN DIRECT INVESTMENT, 1990-2000
(Millions of dollars)

	1990-1994[a]	1995	1996	1997	1998	1999	1995-1999[a]	2000[e]
Argentina	2 982	5 315	6 522	8 755	6 670	23 579	10 168	11 957
Bolivia	85	393	474	731	957	1 016	714	695
Brazil	1 703	4 859	11 200	19 650	31 913	32 659	20 056	30 250
Chile	1 207	2 957	4 634	5 219	4 638	9 221	5 334	3 676
Colombia	818	968	3 113	5 638	2 961	1 140	2 764	1 340
Ecuador	293	470	491	625	814	690	618	740
Mexico	5 430	9 526	9 186	12 831	11 312	11 786	10 928	12 950
Paraguay	99	103	136	233	196	95	153	100
Peru	796	2 056	3 225	1 781	1 905	1 969	2 187	1 193
Uruguay	…	157	137	126	164	229	163	180
Venezuela	836	985	2 183	5 536	4 495	3 187	3 277	4 110
Total	**14 249**	**27 789**	**41 301**	**61 125**	**66 025**	**85 571**	**56 362**	**67 191**

Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), World Investment Report 2000: Cross-border Merger and Acquisitions and Development (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20, and the central banks of each country.

[a] Annual average.

[e] Estimates of the ECLAC Unit on Investment and Corporate Strategies, mainly on the basis of forecasts provided by the central bank of each country.

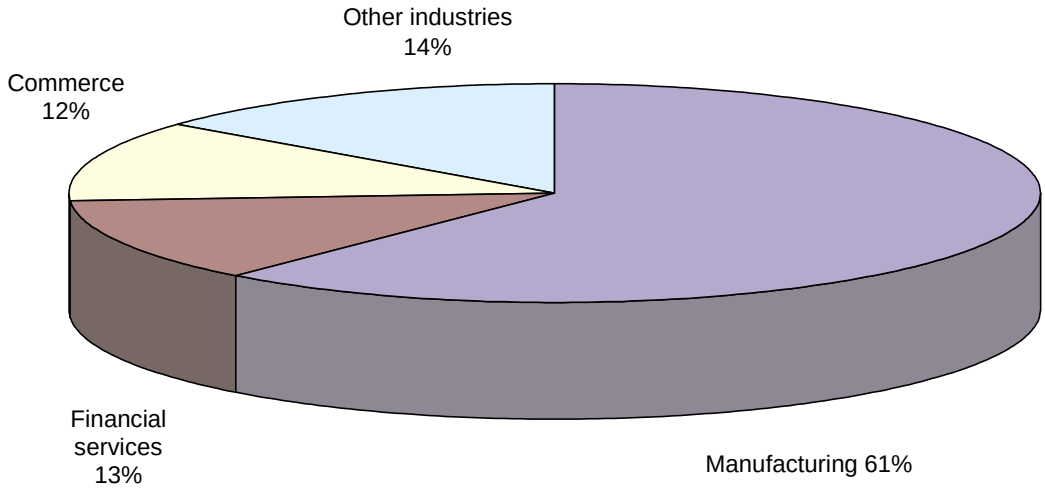
North American market (Mortimore, Buitelaar and Bonifaz, 2000). The significant growth of Mexican exports in recent years is therefore closely associated with recent FDI inflows. Between 1990 and 1999 Mexico increased its share of motor vehicle imports into the United States from 5% to 14%, its share of electronic imports into the United States from 13% to over 20%, and wearing apparel from 3% of the total to over 13% (see ECLAC, 2000a, p. 107). The data available for 2000 reveal that this type of investment continues to be largely responsible for the buoyant trend in FDI (see figure I.4). Thus, in the first semester of 2000 alone, the manufacturing sector recorded US$ 3.29 billion in FDI (www.secofi.gob.mx).

The year 2000 was also marked by interesting developments in other Mexican industries (Dussell, 2000). Particularly noteworthy in this respect were heavy investments made by foreign institutions in the financial sector (see box I.1), which accounted for 31% of total flows into the country in the first semester of 2000. Another major area of investment in the period was commerce, where flows were equivalent to 15% of total FDI in the first half of 2000. One of the most significant operations in this sector in the past year was the investment of US$ 600 million by the United States company Wal Mart, to open 47 new outlets in 2000 and another 60 in 2001 through its subsidiary Wal Mart Mexico SA de CV. Other investments of note, although of a smaller magnitude, arose from the privatization of airport operations with the participation of Spanish and French firms. The partial opening up of the electricity and gas sector (see ECLAC, 2000a, chapter II, section 2(d)) allowed for foreign participation in some projects, including a 25-year license to operate Termoeléctrica Campeche, that was awarded to the Canadian firm Transalta and the successful tender by Gaz de France to operate the natural gas distribution network in Puebla and Tlaxcala.

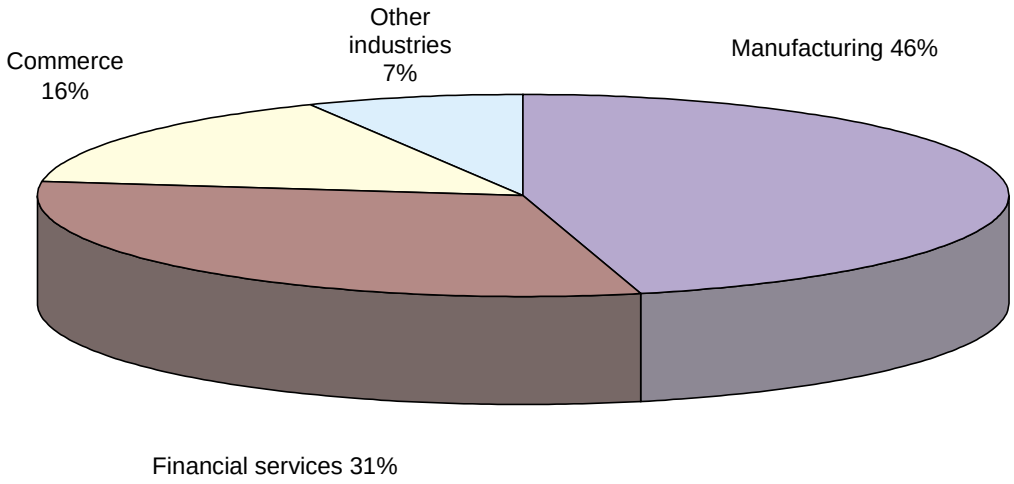
In more general terms, one particularly striking feature of the Mexican pattern that sets it apart from the rest of Latin America is that FDI accounts for only a small share, in both relative and absolute terms, of total investment in service sectors such as electricity and water (0.4% between 1994 and the first half of 2000) and transport and telecommunications, and in sectors such as oil (the extractive industries as a whole attracted less than 1% of total FDI between 1995 and 1999). Although the country's economic growth and its substantial oil

Figure I.4
FOREIGN DIRECT INVESTMENT IN MEXICO, BY SECTOR, 1995-1999 AND FIRST SEMESTER 2000
(Percentages)

1995-1999:



First



Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of official information.

Box I.1

SPANISH BANKING COMES ASHORE IN MEXICO

Banco Santander and Banco Central Hispano merged in 1999 to form Banco Santander Central Hispano (BSCH), creating one of the largest banking institutions in Europe. With a very solid financial base, the newly-established BSCH consolidated the assets that the two banks had each acquired separately in Latin America to form an extensive regional network. In October of the same year Banco Bilbao y Vizcaya and Banco Argentaria merged to form Banco Bilbao y Vizcaya-Argentaria (BBVA), to generate a financial institution that was Spain's second largest and which yielded considerable financial sway. The larger institutions resulting from these mergers have competed vigorously over the last two years for banking assets in Brazil and Mexico, as the industries of both countries undergo very rapid processes of change. Consequently, almost 80% of the resources involved in banking mergers and acquisitions and privatizations in Latin America in the biennium 1999-2000 were concentrated in those two countries, with a sizeable share going to Spanish institutions. In Brazil the most noteworthy transaction was the acquisition by BSCH of control of Banespa (see box I.3). The most significant changes of the last year, however, took place in Mexico.

In fact, last year the main Spanish banking institutions gained major shares of the traditionally closed Mexican banking industry. Their entry was also facilitated by far-reaching changes in Mexico. In particular, the effects of the financial crisis of 1994 and the subsequent regulatory changes were fundamental in creating the conditions which made the entry of foreign banking institutions possible. In order to understand the transformation currently underway, it is thus necessary to briefly review its origins. In the wake of the Mexican currency crisis the banks —which had raised their levels of activity considerably in previous years— found that the economic situation and unfavourable legislation prevented them from recovering a large proportion of their credit portfolios. This seriously jeopardized their continued operation, with effects which reverberated throughout the economy. This phenomenon was reflected in a sharp contraction of credit and steep interest rate hikes; after more than five years the situation has still not returned to normal. According to data from the Mexican Central Bank, commercial bank credit to the private sector in July 2000 was 12% lower than in July 1999 and 70% lower than in 1994. In addition, the lending rate in July 2000 was seven times higher than the United States rate (Expansión, 2000a and b).

Given the severity of the crisis, the authorities intervened in some of the beleaguered institutions and made regulatory changes designed to allow foreign institutions to participate in the capitalization of the industry. During the first stage, from 1995 on, the operations of foreign institutions involved purchasing stock in seriously undercapitalized small and medium-sized Mexican banks. These operations gathered strength from 1996 onward, as the authorities relaxed the restrictive regulations on foreign ownership in the industry. During this stage, which lasted until 1998, Banco Bilbao y Vizcaya, Banco Santander and Banco Central Hispano entered the Mexican market along with other institutions such as Banco Comercial de Portugal, the Canadian Bank of Nova Scotia and Bank of Montreal, the British Hong Kong and Shanghai Banking Corporation (HSBC), and the United States firm J.P. Morgan. As a result, the levels of borrowing and loan placements by foreign banks increased more than 50-fold between 1994 and 1998 (Dussel, 2000).

A second and deeper stage in this process began in January 1999, when the remaining restrictions on foreign capital stock in banking were lifted. Thus, although 1999 did not see any major new transactions involving foreign capital, the process gathered momentum in 2000, when both BSCH and BBVA significantly increased their presence in Mexican industry with major operations involving over US$ 1.5 billion apiece. The first of these megaoperations was set in train at the end of 1999, when the Instituto de Protección del Ahorro Bancario (IPAB) initiated the sale of Grupo Financiero Serfin. IPAB had gained control of Serfin shares in June 1999, to safeguard the resources of savers who had deposits in the institution, which faced a very difficult financial situation. IPAB separated the non-performing and current loans portfolio (which was sold separately at 25% of its nominal value) from the institution's overall portfolio, and put the rest of Serfin's assets up for sale, establishing certain conditions relating to the economic and technical capacity of potential buyers. Initial expressions of interest were received from BSCH (through Banco Santander Mexicano), HSBC Bank USA, Citicorp and Grupo Financiero Banamex-Accival. The process concluded in May 2000, when BSCH acquired 100% of the Serfin stock at a cost of US$ 1.56 billion.

The second major operation took place a month later, in June 2000, when Bancomer accepted a merger proposal from BBVA. In this operation the Spanish bank

Box I.1 (concluded)

put up US$ 1.4 billion in cash, to acquire almost a third of the Bancomer stock, and committed a further US$ 450 million in capitalization bonds, to reach a total capital input of US$ 1.85 billion. The Bancomer group had recently concluded an agreement to purchase Banco Promex from IPAB for a sum of US$ 209 million, and thus added the Promex assets to the merger. The resulting institution, Grupo Financiero BBVA Bancomer, became the leader of the Mexican market with total assets equivalent to more than a quarter of the industry total. BBVA became responsible for the operational management of the new institution, but the ownership remains quite diluted, with 32.2% held by BBVA (which has announced its intention to extend its stake to 40%), while 16.4% belongs to the former controlling group Bancomer, 10.5% to the Government, 10.5% is on the domestic market, a similar proportion on the international market, and 10.8% is held by the Bank of Montreal, which has indicated an interest in selling its share.

The two large Spanish players face quite dissimilar situations in the wake of the megaoperations in which they were involved. BBVA began its association with Bancomer aggressively, proposing to double profits within three years by means of an intensive programme of asset streamlining and expansion in the pensions and electronic commerce areas. In addition, it has embarked upon a powerful expansion strategy in the United States Hispanic market; this area of business began in September 2000 with the opening of branches in Texas and is ultimately expected to provide 15% of total profits. The initial work of BSCH, in contrast, is to repair the image of Serfin, which lost a lot of prestige as a result of the crisis. BSCH will also need to invest intensively in expanding its coverage of branches, staff and products to avoid being left behind in the developing competitive market.

Two trends which emerged from recent operations thus seem to be established for the coming years. One is the clear trend towards the transnationalization of banking capital. The second, which evidently goes hand in hand with the first, is the consolidation of the industry to form a few large, highly capitalized institutions which have access to external financing and are able to meet the cost of maintaining a modern platform for different dimensions of the banking business. In this context, small and medium-sized domestic institutions that do not link up with each other or with transnational banks will certainly tend to be absorbed. The role that might be played by other foreign institutions present in Mexico, such as Citibank or J.P Morgan, or other new foreign entrants, is still not clear. In this regard, United States banks have a remarkably low profile in what could be considered to be one of their natural markets, given the geographical proximity and the links generated between the two economies by NAFTA. It is also not easy to determine what the ultimate effects of this restructuring will be, in terms of its wider impact on the economy. In the short term, the injection of FDI capital has brought major benefits, by buttressing the system as a whole. In the case of Bancomer, for example, the capital injected by the merger with BBVA meant that the new institution was able to meet Basel capital-adequacy requirements toward the end of the year, with a 12.4% capital base. The credit outlook for the country, however, is more complex. Although increased competition has made it possible to liberalize and gradually reactivate consumer credit, credit to production sectors has continued to stagnate and interest rates remain very high.

This is an issue of concern for the future. The authorities invested almost US$ 100 billion to rehabilitate the banking industry during the second half of the 1990s, and the economic and structural difficulties which originally generated the credit shrinkage have now been fully or largely resolved. The macroeconomic framework is adequate and has displayed reasonable growth over recent years, inflation is falling, the banking sector is in great measure financially sound, a new bankruptcy law guarantees that institutions can recover their loans by legal means if necessary, and the industry has been liberalized in terms of the ownership of institutions. The crucial question is whether, in this context, the banking industry will be able to adequately meet the financing needs of the country's production sectors. This entails expanding volumes of credit and reducing interest rates to a level closer to the industry's borrowing rate, in other words, the international rates or the interest rate on deposits. If this does not happen soon there will be legitimate concern about the benefits for the country of recent foreign investment in banking.

reserves would suggest that it is in an excellent position, in terms of natural and economic advantages, for foreign involvement in these industries, certain institutional restrictions are in force: either the industry remains largely in the public sector or the foreign share in it is limited. In telecommunications, with the exception of cellular telephony, foreign participation is restricted by law to 49% of the total, and TELMEX, the former State company, maintains almost a monopoly over local service and controls the interconnection infrastructure (see ECLAC, 2000a, chapter II, section 2(b) and box IV.3 herein). The State is the main player in the electricity and oil sectors, through the National Electricity Council (CNE) and Petróleos de Mexico (PEMEX), respectively. Thus, although construction of new generating capacity has been opened up somewhat and there are plans for major investments, the ownership structure of the established industry shows no sign of imminent change. President Vicente Fox confirmed this policy in his inaugural speech of 1 December 2000, ruling out the privatization of PEMEX or CNE during his term in office.

In 2000 FDI flows to Mexico thus maintained the trends of the 1990s, with some variations in the services sector. Manufacturing continued to enjoy the buoyancy of recent years, with investments being made in the automobile, electronics and clothing industries; in services, investments in the financial sector rose considerably, and large investments were made in commerce. Despite some recent major transactions in the services sector, telecommunications and electricity remain largely under Mexican control, as does the oil industry. The departure of the Institutional Revolutionary Party (PRI) from office and the entry of President Fox are unlikely to presage changes in FDI trends or investment patterns.

(ii) Brazil: restructuring privatized sectors and new investments in services

Brazil's FDI inflows expanded rapidly in the second half of the 1990s, boosted by the success of the stabilization policy embodied in the Real Plan, the economic liberalization programmes, the regional integration policies and extensive privatizations. Thus, in defiance of the crisis which led to the devaluation of the real at the beginning of 1999, flows to the South American giant grew from an average of less than US$ 2 billion in the period 1990-1994 to over US$ 30 billion in the last two years of the decade. ECLAC estimates also indicate that this growth carried over unaltered into 2000, when FDI flows of around US$ 30 billion were recorded again, making Brazil the largest recipient of FDI in Latin America and the Caribbean for the fifth consecutive year, with 45% of total flows to LAIA in 2000.

The sustained volume of foreign direct investment in Brazil in 2000 does not mean, however, that the patterns of investment in the country have been similar to previous years. On the contrary, inflows in 2000 displayed interesting new features. In terms of the modality of investment, 2000 brought a marked slowdown in the privatization process. In 1999 almost 30% of FDI flows (US$ 8.786 billion) were directly linked to different privatization processes (US$ 6.659 billion in the telecommunications industry, US$ 1.106 billion in the gas industry and US$ 1.02 billion in the electricity industry). In 2000, however, only 12% of total FDI income reported in the first ten months of the year was directed at the purchase of State assets (US$ 2.033 billion in telecommunications, US$ 295 million in gas and US$ 693 million in electricity). According to the Central Bank of Brazil, the remainder of FDI between January and October 2000 over US$ 22 billion was directed at non-privatization investment.

The increase in the proportion of FDI not linked to privatizations does not imply, however, that FDI in 2000 returned to the sectoral patterns observed before this process began, when a large share of FDI went to manufacturing activities (in 1995, 55% of FDI stock was concentrated in manufacturing). On the contrary, although not directly linked to the privatization process, more than three quarters of total FDI flows in the first ten months of 2000 were destined for the services sector, and just 24% for manufacturing (see figure I.5). Within this sector, the distribution by industrial activity over the last two years shows a decrease in flows to the manufacturing industries that have traditionally been most closely associated with foreign capital. Thus, for example, the motor vehicle and car parts industry as a whole, which attracted heavy investments at the beginning of the 1990s, reduced its share in non-privatization FDI flows from 12% in 1999 to 5% in 2000. Among the manufacturing industries that have traditionally attracted FDI, only the chemical and pharmaceutical industry received sums of over US$ 1 billion in the first ten months of 2000.

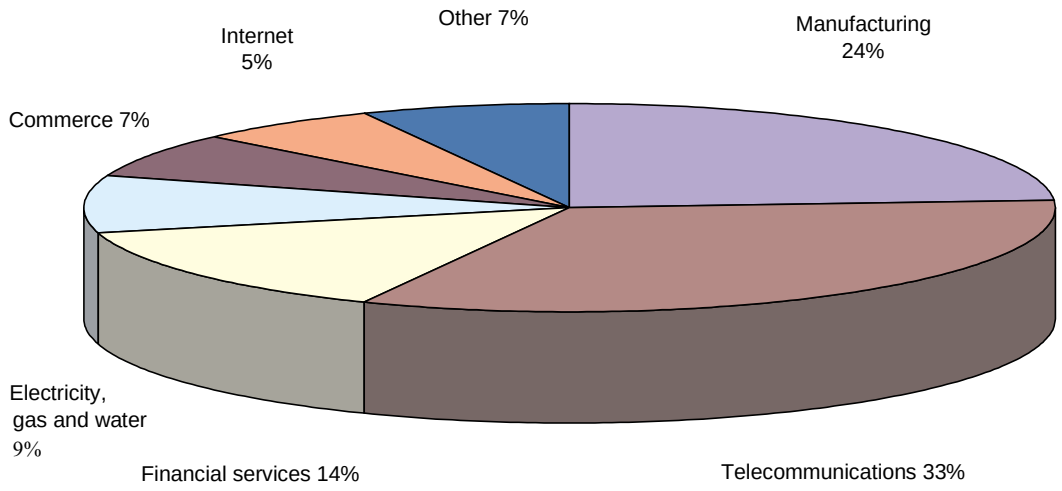
The strength of FDI inflows in 2000 thus appears to have been based on relatively new phenomena within the services sector, which (disregarding flows linked to privatizations) attracted almost two thirds of total FDI in the first ten months of the year. In fact, the data from the sector and information on major operations in 2000 seem to indicate a dynamic process of restructuring and consolidation in industries that have recently been

privatized or liberalized. Thus, the aggregate data on investment for January to October 2000 show direct investment inflows worth US$ 6.703 billion to the telecommunications sector, FDI inflow of US$ 2.803 billion to the financial sector and flows of US$ 1.876 billion to electricity and gas utilities (see figure I.5). These resources have been directed at both assets acquisitions by major players, to enable them to increase or consolidate their presence in different segments of these industries, and at investments to broaden and modernize the operation of recently acquired companies, either through privatization or private-sector acquisitions.

The most noteworthy transaction in the telecommunications sector in 2000 was the purchase by Telefónica España of minority stakes in Telesp SA and Tele Sudeste Celular (now part of Telefónica Brazil) in the context of what was known as "Operation Veronica", by which shares were cashed in for US$ 10.423 billion and US$ 2.419 billion, respectively (see chapter IV). This operation was followed, in terms of the amount involved, by transactions of over US$ 1 billion through which Portugal Telecom acquired shares in Telesp Celular (US$ 756 million) and the purchase by the United States firm Velocom of a third share of Vesper (US$ 875 million). Telecom Italia, Bell South and American Telephone and Telegraph, were among the transnational corporations involved in major transactions in the communications sector in 2000. The banking sector saw the privatization of Banespa, which was bought by BSCH in November 2000 for US$ 3.55 billion (see box I.3), a sum five times higher than its book value, and the purchase of Conglomerado Financiero Meridional, also by BSCH, for close to US$ 1 billion. Other transactions involved purchases by the United States firm Chase Manhattan Bank and the Spanish company Caja de Ahorros La Caixa.

The main operations in the electricity sector involved the United States firm AES, which increased its stake in Eletricidade Metropolitana de São Paulo at a cost of US$ 1.085 billion (see box I.2), the purchase of a large share in Light Serviços de Eletricidade by Electricité de France for US$ 628 million and the acquisition by Eletricidade de Portugal of ES Centrais Elétricas for US$ 535 million. Also in the energy area, the Brazilian State-owned oil company Petrobrás continued its recent

Figure I.5
FOREIGN DIRECT INVESTMENT IN BRAZIL, BY SECTOR, JANUARY-OCTOBER 2000
(Percentages)



Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of official information.

Box I.2

AES IN LATIN AMERICA: A WORLD PLAYER EXPANDS INTO THE REGION FROM A BRAZILIAN BASE

Mergers and acquisitions in the Latin American —and particularly Brazilian— electricity sector reflect a far-reaching process of restructuring at the global and regional levels. As in other industries, this phenomenon can be explained at both levels by a number of factors relating to economic policy, technological change (in the electricity and other industries) and the new global and regional strategies of major players. The upshot of this combination of factors has been a growing private-sector involvement in the industry and a strong process of internationalization, as well as horizontal and vertical integration in recent years.

In terms of economic policy, many Latin American governments have recently sought private financing to address the need to expand and upgrade their electric power systems in a context of fiscal austerity. In the case of Brazil, this has led to a vigorous process of privatization. In addition to these reforms, another source of attraction for transnational corporations is the growth potential of the electricity systems: according to forecasts made by the United States Energy Information Administration (EIA, 1999), during the first two decades of the century demand for electricity will expand at an average rate of 4.2% per year in Latin America, while demand in the industrialized countries will grow at an annual rate of less than 2%. In terms of technology, the most significant recent development has been more efficient use of natural gas for generation. In combination with the advantages of gas over other fossil fuels, this has increased the competitiveness of the resource, which has encouraged increasing convergence between the electricity and natural gas industries in the form of integrated conglomerates. With regard to broader technological progress, the greater possibilities for processing and transmitting information by combining advances in information technology and telecommunications has had the effect of encouraging the integration of the industry through horizontal and vertical networks, and contributed to the transnationalization of companies to form ever larger conglomerates.

One of the most outstanding examples of a player that has made the most of these new conditions at world level to widen and expand its operations is the United States firm AES Corporation, which today has a very strong presence in the region, based mainly in Brazil. Founded in 1982, AES has enjoyed explosive growth over the last five years and is now the largest electricity company in the world. Between 1994 and 2000, AES increased its market capitalization 20-fold, from US$ 1.5 billion in the mid-1990s to almost US$ 30 billion in the last year of the decade. Over the same period, the corporation expanded its operations from just nine plants in three countries to 137 generating plants (with a total capacity of 41,300 megawatts) and 19 distribution businesses in 30 countries in North America, Latin America, Western Europe, Eastern Europe, Central Asia and South-East Asia, with a total of 54,000 employees. In just five years, AES has thus grown from an independent generating operation in North America into a global generating business which has also moved into distribution and marketing of electric power in many regions. The company was originally created to supply electricity in small deregulated niches in the United States; its international expansion and new business came about as an extension of these activities. At present, however, geographical diversification and involvement in distribution and administration activities have become central to its strategic vision.

Within this strategy, the corporation's geographical expansion is aimed at making the most of the opportunities which arise from restructuring and deregulation processes in different developing and developed countries and diversifying the company's risk, while its expansion into new business areas, such as energy distribution and marketing, is intended to identify new niches of higher potential profitability within the sector by building on the experience and capacities already installed in the electricity business. The results in terms of geographical distribution are plain to see, given the broad-fronted expansion of the company in the last five years. In terms of diversification of business lines, a significant indicator is that in the first three quarters of 2000 almost half of the corporation's income came from sources other than power generation. The most outstanding overall result is that profits grew at an average annual rate of over 30% for the last five years of the 1990s. In terms of organizational structure, AES combines a very decentralized decision-making scheme with strong control of ownership. Thus, although all the operational decisions and many strategic decisions are made at the subsidiary level, the policy of AES is to gain majority control of ownership in order to command management responsibility in all the consortiums in which it is involved and to pursue its business strategy unobstructed.

Box I.2 (concluded)

Although AES was later than other transnationals in establishing an initial presence in the region, it has penetrated the Latin American market very rapidly in recent years. As in the rest of the world, the corporation's strategies in Latin America have been designed to closely follow deregulation and privatization in the sector. AES has consolidated a prominent position in the electricity industries of several of the region's countries in the last few years through a policy of acquiring existing capacity when the opportunity arises and building new capacity when that is more appropriate. With regard to new capacity, AES is presently in the process of building five new generators (two in Argentina, one in Brazil, one in Panama and one in the Dominican Republic) with a total potential capacity of 1,850 megawatts. The firm's largest operations in recent years in Latin America, however, have involved acquiring installed capacity through privatizations and, very particularly, an aggressive acquisitions policy (unlike in Asia, where the most important form of penetration is greenfield investment). In the last year alone AES acquired an 81% stake in Electricidad de Caracas in Venezuela, at a cost of US$ 1.66 billion, a majority share in the management of Eletropaulo in Brazil, for US$ 1.085 billion, and 95.6% of the Chilean conglomerate Gener in December 2000, involving a total outlay of US$ 1.3 billion (US$ 840 million to shareholders in Chile and the rest to non-resident ADR-holders).

GENERATING CAPACITY OF AES IN LATIN AMERICA

(Number of plants and megawatts)

	Generators in operation	Megawatt capacity
Argentina	7	1 885
Brazil	52	9 256
Mexico	1	484
Panama	4	277
Dominican Republic	1	210
Venezuela	7	2 265
Subtotal AES	**72**	**14 377**
Chile	13	1 749
Colombia	1	250
Dominican Republic	1	567
Subtotal Gener	**15**	**2 566**
Total	**87**	**16 943**

Source: ECLAC, on the basis of information taken from the Websites of AES (www.aes.com) and Gener (www.gener.cl).

As a result of these operations, in just a few years AES has become one of the two largest players in the Latin American electricity sector (the other is Endesa España). AES has come to control a generation capacity of almost 17,000 megawatts in ten countries of the region, with over half that capacity concentrated in Brazil. In distribution, without counting the Gener operations, at the end of 2000 AES already had almost 16 million clients in Argentina, Brazil, El Salvador, the Dominican Republic and Venezuela.

Box I.3

HEAVY STAKES IN THE BRAZILIAN MARKET: BSCH TAKES CONTROL OF BANESPA

Brazil ended 2000 with an operation of a magnitude that was unprecedented in the Latin American financial system. At an auction held on 20 November 2000, Banco Santander Central Hispano (BSCH) acquired 33% of the capital stock of Banco do Estado de São Paulo (Banespa) with a cash payment of US$ 3.55 billion. BSCH thus gained 60% of the voting shares (the capital of Banespa consists of 37.44 million shares, of which 50% are voting shares and the other 50% are non-voting preferred stock).

The auction concluded a process that was set in motion in May 2000 when the privatization was announced. Subsequently, there were repeated setbacks as the regulators identified transparency problems and the unions took legal action. In August 2000, however, Brazil's Supreme Federal Court finally gave the operation the go-ahead and, after competing with different international financial agencies, BSCH won the tender in November 2000 with a very aggressive offer which was three times higher than the second offer and five times more than the book value of the stock. The Spanish bank conducted this acquisition with the financial support of its strategic partner Royal Bank of Scotland Group plc, which underwrote BSCH shares valued at more than US$ 400 million. This transaction was the beginning of a more substantial strategy of penetration in the Brazilian market by BSCH, which the Spanish bank consolidated on 28 December 2000 with a public tender offer for the whole of the Banespa capital held by minority shareholders at a price of 95 reales per 1,000 shares; this represented a bonus of 58% over the market price at the date of the offer.

Some of the features of the operation set it apart from earlier transactions conducted by BSCH in the region. Firstly, the BSCH role in the Banespa privatization represented the first time the Spanish bank had tendered for a local financial agency in this way; its presence in the region had traditionally been pursued through mergers and private acquisitions, in line with the strategy used previously by Banco Santander (ECLAC, 2000b). Secondly, in the light of the bank's recent operations in Mexico (see box I.1), this transaction confirms the interest shown by BSCH in the region's largest markets. In fact, the main attraction of Brazil is its large size (more than three times the size of the Spanish market). Brazil accounts for 40% of Latin America's banking business and has a high growth potential: in 2000 just 50% of the population aged 18 years or over had a current account (95% in Spain) and there were 19,400 inhabitants per branch (1,100 in Spain). Brazil's financial system also offers some benefits, such as the large size of its institutions, extensive distribution networks, operations that are relatively diversified within the private banking business, high profitability and high levels of capitalization.

The strengthening of the BSCH presence in Brazil (which had only been in the country, through Banco Santander do Brasil, since 1997) is thus part of a strategy of creating shareholder value while maintaining high levels of net worth and liquidity in all its banks. BSCH is now Brazil's third-ranking private financial agency, with US$ 30 billion in assets, US$ 9.5 billion in deposits, US$ 5.2 billion in credit investment and US$ 6.6 billion in administered funds. This operation also consolidates its strong regional position: the company's Latin American assets stand at US$ 113 billion, with a regional market share of client deposits of 10.4% (US$ 67 billion), 7.5% of investment funds (US$ 14.7 billion) and 14.6% of pension funds (US$ 10 billion).

The medium-term objectives of BSCH in Banespa will be to obtain a net profit of US$ 800 million in 2003, increase deposits through active management of traditional and new products, and increase operational efficiency.

process of opening up in 2000, undertaking joint exploration and exploitation projects, mainly with companies from the United Kingdom and the United States. In 2000 Petrobrás also ventured into the Argentine fuel distribution industry, by trading 350 gasoline stations, control of the Bahía Blanca Refinery and 10% of Yacimiento de Albacora Leste, for 700 gasoline stations in Argentina, belonging to Repsol YPF.

Although less significant in quantitative terms, another interesting phenomenon in the Brazilian services sector in 2000 was an increase in investment in the Internet sector, including activities related to service provision, generation of multimedia content and electronic commerce. In a relatively new development, in 2000 large transnational service companies invested intensively to position themselves in this rapidly growing industry. The major transactions in this context were the acquisition of stock in Organizaciones Globo by Telecom Italia for US$ 810 million and the acquisition of Zip.Net by PT Multimedia of Portugal at a cost of US$ 415 million. Other players that increased their stakes in this industry in 2000 were the United States

companies Microsoft and Diebold and the Venezuelan group Cisneros. Given the great potential and still relatively low density of Internet use among the Brazilian population, this area is likely to enjoy significant expansion in years to come.

Although the specific features of some investments have changed, in 2000 overall FDI in Brazil kept up the momentum of recent years. Given the relative drop in investment in manufacturing and the smaller number of privatizations, FDI was largely directed at the restructuring and consolidation of service industries that had previously been privatized and liberalized, such as telecommunications, financial services and electricity. The drive of this process, in combination with the opening and liberalization of the oil sector, should maintain FDI flows into Brazil in the near future.

(iii) The rest of Mercosur and the Andean countries

In marked contrast to the cases of Mexico and Brazil, the first year of the new decade brought a fall in FDI inflows to the rest of South America. In fact, estimated FDI flows to South America as a whole, excluding Brazil, decreased by 30% in 2000 from their 1999 level. This drop, however, can be explained by the effect of the YPF acquisition in Argentina and that of Endesa Chile and Enersis in Chile, without which the 1999 inflows would have been smaller than the estimated inflows for 2000 in the subregion. In terms of their share of the regional total, flows to South America excluding Brazil declined as a proportion of total flows to LAIA countries, from 46% in the second half of the 1990s to 36% in 2000. The rest of this section includes a review of FDI in individual countries, an analysis of the industrial processes that have accounted for these investments and a discussion of the prospects for FDI in some countries of the region.

In the Southern Cone, Argentina and Chile recorded major absolute decreases in FDI inflows in 2000 with respect to 1999. In Argentina, inflows amounted to about US$ 12 billion, which was a drop of almost 50% from the 1999 figure. This result, however, is heavily influenced by one-off factors: if the Repsol purchase of YPF is subtracted from total FDI inflows for 1999, the level for 2000 is in fact higher than for 1999. Nevertheless, estimated inflows for 2000 were also influenced by a large single operation by Telefónica of Spain, which accounted for almost a third of the resources invested in Argentina during the year.[10] In terms of total FDI inflows for both years, however, Argentina accounted for almost 18% of total FDI to LAIA countries in 2000, a level similar to that for the period 1995-1999. In the case of Chile, on the other hand, FDI inflows in 2000 amounted to US$ 3.676 billion, a decrease of 60% with respect to 1999; thus, the country's share in total LAIA inflows fell from almost 10% in the period 1995-1999 (see figure I.3.) to 5.5% in 2000. Although the fall in 2000 is partially explained by the comparative effect of sizeable Endesa España operations in 1999, the year 2000 was not without special operations, which means that the decrease in FDI in Chile is also a reflection of longer-term phenomena in the country.

If the exceptional operations in Argentina in recent years, the virtual end of privatizations, the poor international competitiveness of the economy and the depressed domestic situation, are left out of the analysis, then certain questions arise about the sources of FDI in Argentina in the new decade. These factors have resulted in an absence of FDI inflows attributable to privatizations in 2000, when FDI was largely directed at the acquisition of companies geared towards the local market, in both the manufacturing and services sectors. The main operations in the manufacturing sector in 2000 suggest a concentration of investment in relatively simple activities, particularly in the foodstuffs and beverages industry, which absorbed two thirds of inflows to the sector in 1999 (see box I.4). In contrast, FDI to more sophisticated industries with a regional scope has declined. The motor vehicle industry is an example: after being restructured with foreign capital in the 1990s in order to extend it to the subregional market within Mercosur, it was seriously affected by the devaluation of the Brazilian real in 1999 and non-compliance with reciprocal purchase agreements within the regional block, and the industry recorded disinvestment of about US$ 200 million in 1999.

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10 This was part of the so-called “Operation Veronica”, through which Telefónica España increased its stake in its subsidiaries in Argentina, Brazil and Peru to almost 100% (see chapter IV). This operation involved outlays of US$ 3.719 billion in Argentina, US$ 12.842 billion in Brazil and US$ 3.218 billion in Peru. The operation was conducted by means of exchanging shares in Telefónica España with residents and non-residents of the region for shares or ADRs in the subsidiary companies in these countries. It did not, therefore, entail a direct influx of foreign exchange to these economies. In Argentina the operation was entered in the balance of payments as foreign direct investment income, offset so as not to affect the balance on capital account by a decrease in the portfolio investments in the country by non-residents who swapped their shares for those of Telefónica España, and by an increase in the holdings of external assets of resident investors who participated in the share-swap scheme (see Ministry of Economic Affairs, Public Works and Services, Argentina, 2000).

Box I.4

THE SOUTHERN CONE FOOD AND BEVERAGE INDUSTRY AND THE GLOBAL STRATEGY OF DANONE

The heavy involvement of the food and beverage industry in recent mergers and acquisitions in the Latin American manufacturing sector is indicative of a major restructuring in this industry in some countries of the region. The process stems from both national phenomena and from the global and regional strategies pursued in recent years by transnational companies in response to the technological and market transformation taking place in the food and beverage industry at the global level. In particular, the globalization of the media has brought changes in the structure of some industries, including this one, which heavily target the final consumer and involve fundamental changes in the factors that define competitive advantages. In these industries marketing activities and innovation directed at market positioning and retaining brand loyalty have come to play an essential role in competition. In a context of increasingly globalized consumption patterns, expansion through foreign direct investment into markets with a large capacity for consumption makes it possible to spread the global costs of marketing activities and innovation. The strategies of major transnational players in this type of industry in recent years have thus been aimed at gaining a position in high-growth markets, in order to tap directly into the rents associated with the ownership of brands that are increasingly recognized at the global level.

In Latin America, operations in the industry during the biennium 1999-2000 have shown a high degree of geographical concentration. In fact, 33 of the 39 merger and acquisition operations recorded in this period in the regional industry took place in Brazil, Argentina and Chile, which together attracted 85% of the resources directed at the food and beverage industry in the region. In part, this confirms the national factors that motivate merger and acquisition operations in the industry: all three countries have relatively stable economies and a wide base of medium- and high-income consumers, they are culturally homogeneous, and they have consumption patterns that are similar to those of more developed countries. In addition, medium- and high-income consumers in these countries tend increasingly to emulate consumption patterns associated with globally recognized brands, in a phenomenon facilitated by the powerful development of telecommunications and the recent market entry of the international media in these countries. In this context, it is unremarkable that transnational companies that own major brands of food and beverages have acquired local plants to capitalize on their brand name in domestic markets.

The clearest examples of this type of strategy in Latin America in recent years include France's largest food company, the Danone Group, which currently has investments in Argentina, Brazil and Mexico. By 1997 this company had already recognized the changes that were taking place in the industry, and developed a new business strategy specifically aimed at restructuring its global operations in this new international context. According to the Danone Group, the elements of this strategy include: (i) focusing the Group's activities on three business lines —fresh dairy products, mineral water and biscuits— which "offer significant profit and growth potential"; (ii) speeding up international expansion in these three main lines take advantage of growth in emerging markets; (iii) optimizing assets and publicity to increase the profits of the Group's main brands; (iv) designing and developing products to be marketed under the main brand names; (v) developing consumer confidence in its brands through strict policies of food safety and quality; and (vi) improving organization and global integration to boost efficiency and attention to consumer preferences.

This new strategy has enabled the Danone Group to position itself as a major world player in the industry in recent years. Undoubtedly the strategy of focusing on three products has proven successful and has made the Group a world leader in dairy products and biscuits, and the world's second largest in mineral water. In Latin America, in particular, the Group's recent acquisitions have resulted in decisive leadership of the Brazilian and Argentine dairy product markets. Geographical expansion firmly based on acquisitions in the United States, Latin America and other emerging markets has, generally speaking, been successful. In 1999 markets outside the European Union accounted for around a third of the Group's income and more than half of its workforce, and in the first half of 2000 sales in these markets grew at an annual rate of 11.7%, compared with an annual rate of 5.7% and 6.6% in France and the rest of the European Union, respectively. The strategy of brand strengthening has also yielded good results, with over two thirds of sales in recent years deriving from brands that are number one in their respective markets. In addition to these strategic moves, the Group has made changes in its structure: in 1999 the company created global intranets by product, whereby information on each product line can be transmitted rapidly between subsidiaries and across geographical boundaries, and in 2000 it began work on a worldwide integrated administrative platform.

Box I.4 (concl.)

As part of this new strategy, Danone developed an ambitious plan of acquisitions in the Southern Cone to consolidate its Latin American operations, and it has bought numerous assets in Argentina and Brazil over the last two years. In Brazil, Danone has developed mostly in the dairy products and biscuits markets, and the Group's recent acquisitions have increased its market share of these industries. These include increasing its stake to almost 100% in Aymoré biscuits in February 2000, and acquiring the Paulista dairy brand and the Guarantigueta processing plant in the state of São Paulo in December 2000. These recent dairy acquisitions will add some US$ 100 million to the Group's dairy sales —amounting to about US$ 130 million in 1999—, and will make Danone the largest player in this market in Brazil with a market share of 11%. In Argentina, Danone has established a presence in all three of its strategic priority areas, with Danone Argentina as the main dairy company, Bagley in biscuits and Aguas Minerales in bottled water. The Group's recent operations increased its stake in the dairy business, in which it is now the frontrunner, having gained control of La Serenísima distributor in September 2000. It also consolidated its presence in the bottled water and biscuits industries by acquiring Termas Villavicencio in 1999 and increasing its stake in Bagley biscuits to almost 100%.

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, and Danone website (www.danone.com).

The year 2000 also saw major acquisitions involving foreign capital in service industries, including the above-mentioned Telefónica España operation, the purchase by Banco Santander Central Hispano of a stake in Banco del Río de la Plata and in Banco de Galicia y Buenos Aires, and the acquisition of Emdersa by the United States electricity company GPU. Given that Argentine service industries are now highly transnationalized, however, this process is unlikely to continue to be a dynamic source of new external resources for very much longer. Perhaps the sector most likely to attract growing volumes of FDI into Argentina in the future is mining. According to the Argentine Department of Mines, between 1993 and 1999 almost US$ 700 million was invested in exploration of new fields, and major mining projects by Australian and Canadian companies are underway or being studied.

As in neighbouring Argentina, recent FDI trends in Chile raise important questions about direct investment sources in the future (see chapter II of this report for a more extensive analysis of FDI in Chile). Despite a couple of utility company acquisitions involving voluminous sums toward the end of the year, in 2000 FDI inflows to Chile were well below the average for the preceding five-year period. In fact, although they were not all recorded in 2000, the flows generated by the acquisition of more than 95% of the Chilean electricity conglomerate Gener by AES Corporation, involving an outlay of over US$ 840 million (see box I.2) in Chile in December 2000 and the acquisition of over 30% of the telecommunications company ENTEL by Telecom Italia, for over US$ 900 million, together were equivalent to almost half the total FDI inflows recorded in Chile for the entire year. In the light of this, questions arise about the sources of FDI in the years to come (Moguillansky, 2000). Mining, which was the most dynamic sector in terms of attracting FDI in the 1990s, has completed its cycle of heaviest investments. Chile's most significant privatizations took place in the 1980s and, as in Argentina, ownership of the main service industries is already highly transnationalized. In response to this concern about future sources of FDI, and in the light of certain selectivity criteria that the authorities were beginning to apply to new investment in Chile, in 2000 there were incipient efforts to attract investment in sectors with a higher level of technological sophistication.

Further to the north, the Andean Community countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) received estimated FDI inflows of around US$ 8 billion in 2000, which was 12% higher than in

1999 but 14% lower than the annual average of the period 1995-1999. This subregional total masks significant differences between countries, however. In terms of the distribution of inflows, the position of Venezuela was particularly interesting, as the country increased its share of flows to the Andean Community from a third of the total in the period 1995-1999 to more than half of all estimated inflows in the first year of the new decade. The expansion of Venezuela's share reflects both an increase in the absolute levels of FDI inflows to Venezuela and a reduction of flows to other large Andean countries. In recent years countries such as Colombia and Peru thus experienced sharp reductions in absolute and relative FDI inflows compared to earlier periods, while in the last two years the other two members of the subregional block, Bolivia and Ecuador, attracted flows that were similar or slightly higher than the figures for the period 1995-1999.

In some countries of the Andean Community, the sharp fall in FDI inflows over the last two years has been largely a response to uncertainty caused by the political, economic and institutional instability which has beset them. The most illustrative case is Colombia, where the intensification of the guerrilla conflict over the last two years and the general insecurity in the country have clearly affected its FDI inflow, which fell year on year between 1997 and 2000. In fact, after reaching a record US$ 5.639 billion in 1997, FDI inflows to Colombia decreased to US$ 1.14 and US$ 1.34 billion in 1999 and 2000, respectively. Although less dramatic, the recent instability in Peru has also affected FDI, and inflows in 2000 are forecast to drop by around 45% with respect to the average flows of the previous five-year period. Despite the notable upturn in 2000, the trend of FDI in recent years in Venezuela has also shown the effects of uncertainty deriving from the process of political and institutional change the country has undergone in recent years. In fact, before the upswing in 2000, FDI inflows to Venezuela had fallen significantly in both 1998 and 1999.

With regard to sectoral distribution, recent FDI to Andean Community countries has reflected their rich natural resources on the one hand, and the reforms implemented and potential for development offered by their service industries, on the other. In the sector of natural resources, in 2000 a 40-year concession to exploit Peru's Camisea gas reserve was awarded to Pluspetrol Energy (controlled by the Spanish company Repsol-YPF); the British companies Anglo American and Billiton and the Swiss firm Glencore acquired shares in the Colombian coal mine Cerrejón Zona Norte; and the Canadian firm Crestar Energy Inc. and the Italian company Agip acquired holdings in the Ecuadorian oil sector. In the services sector, major operations in 2000 included the acquisition of Electricidad de Caracas in Venezuela by the United States firm AES (see box I.2); the purchase of a majority stake in Telefónica del Perú by Telefónica España through share swaps in the so-called "Operation Veronica" (see footnote 3); and the acquisition of the Colombian firm Celumóvil by the United States company BellSouth.

Flows to LAIA as a whole thus displayed some new features at both the national and regional levels in the first year of the new decade. The main share of new investment went to the largest countries, Mexico and Brazil, which will probably continue to attract a major share of FDI flows in coming years. The rest of South America faces different kinds of difficulties at the national and subregional levels. In Argentina and Chile, the problems relate to the fact that the main sources of FDI in the 1990s have now been exhausted. In the Andean countries the difficulties are largely associated with the political and economic instability that has been a feature of some countries of the subregion recently.

(b) FDI in the Caribbean Basin

Although the Central American and Caribbean countries account for a relatively small share of recent inflows to Latin America and the Caribbean (6% of the total in the period 1995-2000; see figure I.3), together these economies received a considerable amount of FDI for their size, as they attracted US$ 5.351 billion in 1999. This result is consistent with recent trends in FDI inflows, which grew strongly during the 1990s to reach an average of US$ 3.953 billion in the period 1995-1999: an increase of over 180% with respect to the average for the preceding five-year period. Although almost all the countries of the subregion experienced some increase in FDI inflows in the second half of the 1990s (the only exceptions being Antigua and Barbuda and Guyana), in general this inflow was highly concentrated in just a few countries; this was a reflection of their size and the new investment patterns and strategies of TNCs. Thus, 60% of total FDI inflows to the subregion in the period 1995-1999 were directed at just four countries: Panama, Trinidad and Tobago, Dominican Republic and Costa Rica. If these flows are added to FDI in another five receiving countries Jamaica, El Salvador, Guatemala, Nicaragua and Honduras , then FDI inflows to those nine countries (of a total of 25) account for almost 90% of the subregional total in the second half of the 1990s (see table I.3). The information that is available on FDI in 2000 suggests that this trend in

Table I.3
CENTRAL AMERICA AND THE CARIBBEAN: NET INFLOW OF FOREIGN DIRECT INVESTMENT, BY COUNTRY, 1990-2000
(Millions of dollars and percentages)

	1990-1994[a]	1995	1996	1997	1998	1999	1995-1999[a]	1999 (%)
Anguilla	10	...	...	...	...	...		
Antigua and Barbuda	35	31	19	24	26	12	22	0.2
Aruba	38	-6	84	196	84	392	150	7.3
Barbados	11	12	13	15	16	15	14	0.3
Belize	14	21	17	12	18	-7	12	-0.1
Costa Rica	222	337	427	408	613	669	491	12.5
Cuba	7	9	12	13	30	15	16	0.3
Dominica	17	54	18	22	11	13	24	0.2
El Salvador	12	38	-5	59	1104	231	285	4.3
Grenada	18	20	18	35	51	43	33	0.8
Guatemala	88	75	77	84	673	155	213	2.9
Guyana	65	74	93	53	47	48	63	0.9
Haiti	…	7	4	4	11	30	11	0.6
Honduras	41	50	91	122	84	230	115	4.3
Jamaica	124	147	184	203	369	524	285	9.8
Montserrat	6	...	...	...	...			
Nicaragua	19	75	97	173	184	300	166	5.6
Panama b	190	267	410	1256	1206	516	731	9.6
Dominican Republic	171	414	97	421	700	1338	594	25.0
Saint Kitts and Nevis	22	20	35	20	34	77	37	1.4
Saint Vincent and the Grenadines	22	31	18	55	28	25	31	0.5
Saint Lucia	42	30	23	47	84	87	54	1.6
Suriname	-38	-21	19	-9	9	5	1	0.1
Trinidad and Tobago	270	299	355	999	730	633	603	11.8
Total	**1 406**	**1 984**	**2 106**	**4 212**	**6 112**	**5 351**	**3 953**	**100.0**

Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2000: Cross-border Merger and Acquisitions and Development* (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20, and the central banks of each country.

[a] Annual average.

[b] The data on flows to Panama in 1999 were updated on 16 January 2001 on the basis of information provided directly to ECLAC by the Comptroller-General of Panama.

distribution of flows was carried over into the first year of the new decade.

The largest recipient of FDI in the subregion in 1999 was the Dominican Republic, which received US$ 1.338 billion, more than 25% of the subregional total. This level of annual flows was almost double the 1998 figure and completed a five-year period of rapid growth, with annual average FDI inflows to the Dominican Republic in the second half of the 1990s three and a half times higher than inflows in the period 1990-1994. This rapid

growth was the result of a series of sectoral priorities and new types of operations by TNCs in the country in the 1990s (see section C of this chapter). In terms of sectoral structure, the traditionally natural-resource-based export structure underwent considerable diversification in the 1990s, thanks to heavy foreign investments in relatively simple manufacturing activities in textiles or assembly of imported components for the electronics industry (Mortimore and Peres, 1998). In addition, the country's industrial growth generated infrastructure needs which led the administration to undertake a major process of investment in the electricity sector with active private-sector participation; partly foreign-funded electricity privatizations thus accounted for a large percentage of the FDI increase recorded in 1999. These efforts are also closely linked to the authorities' bid to encourage investments in more sophisticated types of manufacturing. Another notable area of investment in the Dominican Republic is tourist infrastructure: the Spanish corporations Occidental Hoteles and Best Hotels both invested heavily in hotel capacity in the country in 2000.

The second-largest recipient of FDI in Central America and the Caribbean in 1999 was Trinidad and Tobago. This country attracted US$ 633 million in FDI, or 12% of the subregional total that year. Trinidad and Tobago was also the second largest recipient of FDI in the Caribbean Basin throughout the period 1995-1999, when average annual inflows more than doubled with respect to the previous five-year period. This relatively small economy's ability to attract foreign investment is directly linked to the exploitation of the country's abundant hydrocarbon resources (see ECLAC, 2000a, box I.1). Foreign investment in Trinidad and Tobago in the 1990s was thus highly focussed on exploration, exploitation and export of the abundant petroleum and natural gas resources. Within this sector, the largest recent investments have been directed at natural gas, the production of which increased five-fold in the 1990s. Major TNCs to invest recently in different phases of natural gas exploitation in Trinidad and Tobago include the American firms Amoco and Enron, British Gas and the Spanish company Repsol.

Also the Caribbean, the Jamaican economy received US$ 524 million in FDI in 1999, which was almost 10% of the subregional total and represented an increase of more than 40% with respect to the 1998 figure. In common with other countries of the region, FDI inflows to Jamaica in the 1990s were largely directed at relatively simple manufacturing activities in export-processing zones. In recent years, these investments have been supplemented by heavy outlays in the services sector, particularly the tourist industry and telecommunications. Investments in cellular telephony were particularly significant in this respect in 2000, with outlays of about US$ 50 million apiece by the United States firms Centennial Communication and Cellular One Caribbean.

Another country to attract substantial investment in 1999, this time in continental Central America, was Costa Rica, with FDI inflows of US$ 669 million, which was equivalent to over 12% of the subregional total and 36% higher than the annual average for the period 1995-1999. In terms of the sectoral distribution of investments, Costa Rica saw voluminous outlays being made in the manufacturing sector over the last decade; thus, unlike other countries in the region, it has made strides towards modernizing its manufacturing capacity and attracted investments in more sophisticated areas (see ECLAC, 2000a, chapter I, section C). One of the outcomes of this strategy was the installation of a microprocessing plant by the manufacturer Intel in 1998. In recent years overall investment has also been swelled by investments in infrastructure areas, including the award of a 20-year licence in 1999 to the United States consortium Airport Group International, to operate Juan Santamaría airport in San José. In comparison with other countries of the subregion that have recently privatized their telecommunications systems, Costa Rica has not been able to attract significant flows to the sector, and the proposal to privatize the industry faced serious political problems in 2000.

Privatization-linked FDI flows to Panama fluctuated enormously in the late 1990s. The sale of basic telephony to the private sector in 1997, involving the British company Cable and Wireless, and the privatization of the electricity industry in 1998, involving the Canadian firm HydroQuebec, and the United States firms Coastal Corporation and AES Corporation (see box I.2), made Panama the largest receiver of FDI in the subregion in those two years, with annual flows to the country of over US$ 1.2 billion in each. The absence of major privatizations in 1999 meant that the decade closed with inflows falling to US$ 516 million, a level closer to historical flows and equivalent to 10% of inflows to the subregion in 1999. Although in 2000 there were no significant privatizations, the available estimates suggest that the 1999 trend was carried over into the first year of the new decade. AES Corporation and BellSouth have already announced plans to invest a total of over US$ 400 million in electricity generation (AES) and cellular telephony (BellSouth).

In El Salvador and Guatemala, investments in the first half of the 1990s were heavily influenced by the development of export-processing zones, particularly in

the apparel industry. More recently, the most powerful sources of attraction for investment in these countries have been privatizations and acquisitions. FDI inflows to El Salvador amounted to US$ 231 million in 1999. Although this was far below the figure for 1998, when the main telecommunications company and several electricity companies were privatized, the 1999 figure was still buoyed by the privatization process, coming in well above all the previous years of the decade. There were no major privatizations in 2000, but acquisitions in the electricity and telecommunications sectors continued to attract heavy FDI flows. In June 2000 the United States firm Pennsylvania Power and Light invested US$ 94 million to purchase a 50% stake in Empresa de Electricidad de Centroamérica, and the United States firm World Wide Wire Communications acquired a 25% share in the communications company Saltel in March.

Guatemala attracted FDI flows of US$ 155 million in 1999. As in El Salvador, this figure was much lower than in 1998, when there was intensive privatization activity, but nevertheless reflected a rising trend with respect to previous years, also in connection with ownership changes in infrastructure sectors. Although 2000 saw no more large privatizations, major TNCs continued to be involved in acquisitions and new plans for investment in services. Telmex of Mexico, for example, acquired Grupo Luca, which controls Telecomunicaciones de Guatemala (TELGUA), and announced plans to invest US$ 400 million over the next two years.

Although less advanced than in some of their Central American neighbours, infrastructure privatization processes also account for a considerable proportion of recent FDI inflows to Honduras and Nicaragua, which recorded major acquisitions involving foreign capital in the manufacturing sector. FDI inflows to Honduras in 1999 amounted to US$ 230 million, which represents a significant increase with respect to previous years and is mainly attributable to the partial privatization of telecommunications infrastructure. Most of the privatization activity in 2000 took place in the area of sanitation tenders, in which Suez Lyonnaise des Eaux successfully bid US$ 150 million for a 30-year licence to operate sanitation services. The largest operation of 2000, however, was not related to privatizations but the acquisition of the Honduran Corporación Cressida by the British company Unilever for US$ 314 million.

Nicaragua also saw a significant increase in FDI inflows in 1999 with respect to 1998, with flows of US$ 300 million in the last year of the decade. Some recent operations suggest that this dynamism is likely to carry over into 2000. The privatizations programme took major strides forward with the acquisition of the electricity companies Dissur and Disnor by Unión Fenosa of Spain in September 2000. In terms of private operations in manufacturing, the Mexican company Copamex acquired a stake in Industrias Unidas de Centroamérica, in the paper industry, and Cemex, also of Mexico, announced future investments of US$ 94 million in the Canal cement plant.

The other economies of the subregion together accounted for 11% of total FDI inflows to Central America and the Caribbean in the period 1995-1999. Among these relatively smaller economies, the largest receiver in this period was Aruba, with average flows of US$ 150 million, mainly directed at the tourist industry and, more recently, at the oil industry, the country's second largest. The Guyanese economy drew average annual FDI flows of over US$ 63 million in the period 1995-1999, mainly in gold mining, the forestry sector and infrastructure (CARICOM, 2000). Other smaller Caribbean economies that have received very high levels of FDI in recent years in relation to their size, particularly in the tourist sector, are Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Antigua and Barbuda, and Dominica. The strong transnationalization of these economies is reflected in the fact that currently they all have levels of FDI stock that are very close to or even higher than their annual GDP (CARICOM, 2000).

FDI flows to the financial centres of the Caribbean amounted to US$ 2.599 billion in 1999. This fall of almost 60% with respect to 1998 and 30% with respect to the annual average for the period 1995-1999 (see table I.4), largely attributable to a marked decrease in flows to Bermuda and the Cayman Islands. As these countries do not provide information about the origin and destination of flows, it is not possible to establish the cause of these sharp reductions with any degree of certainty. These financial centres are not actually the final destination of the great majority of the flows they receive, inasmuch as the funds tend to be in transit to other countries, both within and outside the region, and therefore are very unstable. Given the efforts deployed by OECD to discourage the corporations of developed countries from using these centres, however, there is reason to suppose that their relative share in flows to the region could decrease in the future.

Table I.4
FINANCIAL CENTRES: FOREIGN DIRECT INVESTMENT, 1995-1999
(Millions of dollars)

	1990-1994[a]	1995	1996	1997	1998	1999	1995-1999[a]
Netherlands Antilles	23	10	11	103	151	70	69
Bahamas	6	107	88	210	147	145	139
Bermudas	2 065	1 350	2 100	1 700	2 400	184	1 547
Cayman Islands	255	490	410	2 000	3 500	1 800	1 640
Virgin Islands	157	470	510	500	200	400	416
Total	**2 506**	**2 427**	**3 119**	**4 513**	**6 398**	**2 599**	**3 811**

Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), World Investment Report 2000: Cross-border Merger and Acquisitions and Development (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20.

[a] Annual average.

B. STRATEGIES, AGENTS AND MODALITIES OF FOREIGN DIRECT INVESTMENT

1. Strategies and actors: the legacy of the 1990s

As the country-by-country analysis of the previous section shows, the increase in FDI flows to Latin America and the Caribbean in the 1990s was not uniformly distributed throughout the region. There were significant differences in both the strategies and the modalities of investment pursued by the TNCs that were involved in different countries and industries across Latin America and the Caribbean. Table I.5 outlines TNC strategy in the region in the 1990s.

As table I.5 shows, there were two different approaches to the manufacturing sector in the 1990s. One involved a strategy that was relatively new to the region, whereby FDI in manufacturing in Mexico and the Caribbean Basin was largely directed at generating international competitiveness (mainly exports to North America) in dynamic industries such as motor vehicles, electronics and apparel (see Mortimore, 2000). The second strategy pursued by some TNCs in the manufacturing sector in the 1990s was to deepen traditional investment patterns. Used particularly intensively in large and medium-sized South American countries, this strategy involved investments in the restructuring and modernization of production units targeting local and wider subregional markets which were comparatively protected by different integration schemes (for example, from Argentina to Mercosur or from Colombia to the rest of the Andean Community).

In the 1990s FDI in the primary sector focussed strongly on countries that are relatively rich in mining resources and hydrocarbons with a view to benefitting from traditional comparative advantages. The significant increase in the sums invested in this sector over the last decade was thus a direct reflection of the processes of liberalization of international trade, the opening up of natural-resource extraction industries to foreign capital in countries such as Argentina, Brazil, Bolivia, Colombia, Chile and Venezuela, and a political climate throughout almost the entire region which was more favourable to FDI. Mexico is an exception to this pattern, since FDI is still barred from the country's abundant hydrocarbon resources and allowing it in the near future is not a priority on the national agenda.

In the tertiary sector, despite differences between industries, the massive investments of the 1990s reached

Table I.5
LATIN AMERICA AND THE CARIBBEAN: STRATEGIES OF TRANSNATIONAL CORPORATIONS IN THE 1990s

Corporate strategy / Sector	(A) Efficiency	(B) Raw materials	(C) Market access (national or regional)
Primary		**Oil/gas:** Venezuela,Colombia, Argentina, Bolivia and Brazil **Minerals:** Chile, Argentina and Peru	
Manufactures	**Motor vehicles**: Mexico **Electronics**: Mexico and Caribbean Basin **Apparel:** Caribbean Basin and Mexico		**Motor vehicles**: Mercosur **Chemicals**: Brazil **Agribusiness, foods and beverages**: Argentina, Brazil and Mexico **Cement:** Colombia and Venezuela
Services			**Financial**: Brazil, Mexico, Chile, Argentina, Venezuela, Colombia and Peru **Telecommunications**: Brazil, Argentina, Chile and Peru **Electricity**: Chile, Colombia, Brazil, Argentina and Central America **Natural gas distribution**: Argentina, Brazil, Chile and Colombia **Retail commerce**: Brazil, Argentina, Mexico, Chile

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management.

virtually all of the region, at varying paces depending on the liberalization and privatization policies of the different countries. The basic strategy of TNCs in this sector was to acquire and modernize existing infrastructure in order to participate in the expansion of the regional markets and establish a large enough regional and global presence to compete with other TNCs.

The typology of FDI in Latin America and the Caribbean that is shown in table I.5, though simple, presents a comprehensive overview of the operations of TNCs in Latin America and the Caribbean during the 1990s. There is a clear distinction between the strategies of transnational firms particularly in terms of their operations in the primary and manufacturing sectors in South America, on the one hand, and in Mexico and the Caribbean Basin, on the other. In South America, during the 1990s TNCs continued to pursue their traditional strategies based on natural resources in the region, and in the manufacturing sector they continued to produce for a national or regional market. In Mexico and the Caribbean Basin, in contrast, transnational firms developed new strategies which involved integrating the countries of the subregion into their international production systems, in an attempt to improve efficiency and compete in markets and industries in which international trade was increasing. Tables I.6 and I.7 show trends in the international competitiveness of South America, on the one hand, and of Mexico and the Caribbean Basin, on the other, in the period 1985-1998.

As these tables clearly show, in the period 1985-1998 the different strategies of TNCs in the region helped to generate a powerful contrast between the international competitiveness of South America, on the one hand, and Mexico and the Caribbean Basin, on the other. South America's share of the international market fell from 3.34% in 1985 to 2.81% in 1998, while the share of Mexico and the Caribbean Basin increased from 2.13% to 2.80%. Even more strikingly, South America's market share increased or remained stable in the least dynamic segments of world trade, while Mexico and the Caribbean Basin saw their share increase most in the fastest-growing sectors. The only sector in which South America increased its share in world trade between 1985 and 1998 was natural resources (from 7.12% to 10%),

Table I.6
SOUTH AMERICA: INTERNATIONAL COMPETITIVENESS IN WORLD IMPORTS, 1985-1998
(Percentages)

			1985	1990	1995	1998
I. Market share			**3.34**	**2.73**	**2.73**	**2.81**
Natural resources (1)			7.12	7.59	8.93	10.03
Manufactures based on natural resources (2)			5.03	4.33	4.55	4.59
Manufactures not based on natural resources (3)			1.21	1.13	1.11	1.17
- Low technology (4)			1.93	1.73	1.66	1.53
- Mid-level technology (5)			1.16	1.18	1.32	1.51
- High technology (6)			0.45	0.35	0.28	0.38
Other (7)			2.08	1.14	1.33	1.42
II. Export structure (contribution)			**100.0**	**100.0**	**100.0**	**100.0**
Natural resources (1)			49.2	44.3	43.6	44.0
Manufactures based on natural resources (2)			29.2	28.3	27.6	25.7
Manufactures not based on natural resources (3)			19.7	26.0	27.1	28.5
- Low technology (4)			8.2	10.5	10.1	9.0
- Mid-level technology (5)			9.9	13.5	15.1	16.7
- High technology (6)			1.5	1.9	2.0	2.8
Other (7)			1.9	1.4	1.7	1.8
III. 10 main exports by contribution	[a]	[b]	**52.3**	**44.6**	**40.8**	**41.1**
333 Crude petroleum oils		+	12.3	10.0	11.2	11.1
081 Feeding-stuff for animals (not including unmilled cereals)		+	4.4	4.4	4.7	4.3
334 Petroleum products, refined		-	10.7	7.2	4.4	4.3
071 Coffee and coffee substitutes		-	9.9	4.6	4.1	4.1
682 Copper		-	3.2	4.5	3.7	3.6
057 Fruit and nuts (not including oil nuts), fresh or dried		+	2.9	3.9	3.6	3.6
281 Iron ore and concentrates		+	4.1	4.4	3.3	3.1
222 Oil seeds, oil nuts and oil kernels		+	2.2	2.4	2.1	2.5
781 Passenger motor vehicles		+	0.6	0.7	1.2	2.3
287 Ores and concentrates of common metals		+	2.1	2.4	2.4	2.3

Source: ECLAC, on the basis of the CAN computer program.

Groups of goods based on the Standard International Trade Classification (SITC Rev.2).

(1) Contains 45 simply processed commodities, including concentrates.

(2) Contains 65 items: 35 agricultural/forestry groups and another 30 (mostly metals -except steel-, petroleum products, cement, glass, etc.).

(3) Contains 120 groups which represent the sum of (4) + (5) + (6).

(4) Contains 44 items: 20 groups of the textile-wearing apparel cluster, plus another 24 (paper products, glass and steel, jewels).

(5) Contains 58 items: 5 groups from the motor vehicle industry, 22 from the processing industry and 31 from the engineering industry.

(6) Contains 18 items: 11 groups from the electronics cluster plus another 7 (pharmaceutical products, turbines, aeroplanes, instruments).

(7) Contains 9 unclassified groups (mostly from section 9).

[a] Groups that correspond (*) to the 50 fastest-growing in world imports, 1985-1998.

[b] Groups in which South America gained (+) or lost (-) market share in world imports, 1985-1998.

while its share of resource-based manufactures decreased from 5.03% to 4.59%, and of non-resource-based manufactures from 1.21% to 1.17%. Over the same period Mexico and the Caribbean Basin improved their international competitiveness in non-resource-based manufactures from 1.17% to 2.95% of world trade.

The difference in the international competitiveness of the two subregions is also reflected in the way their export structures have developed. In the mid-1980s both subregions participated in the world economy in a similar manner, with exports being highly dependent on natural resources and commodity-intensive manufactures. The situation was very different by 1998, however: 69.7% of South American exports still relied on natural resources and resource-based manufactures, while Mexico and other countries of the Caribbean Basin

Table I.7
MEXICO AND THE CARIBBEAN BASIN: INTERNATIONAL COMPETITIVENESS IN WORLD IMPORTS, 1985-1998
(Percentages)

	[a]	[b]	1985	1990	1995	1998
I. Market share			**2.13**	**1.73**	**2.21**	**2.80**
Natural resources (1)			5.01	3.61	3.31	3.69
Manufactures based on natural resources (2)			1.43	1.15	1.30	1.53
Manufactures not based on natural resources (3)			1.17	1.41	2.22	2.95
- Low technology (4)			1.06	1.44	2.40	3.40
- Mid-level technology (5)			1.09	1.43	2.35	2.97
- High technology (6)			1.50	1.34	1.84	2.55
Other (7)			1.83	1.84	2.18	2.60
II. Export structure (contribution)			**100.0**	**100.0**	**100.0**	**100.0**
Natural resources (1)			54.1	33.3	20.0	16.2
Manufactures based on natural resources (2)			13.1	11.9	9.7	8.6
Manufactures not based on natural resources (3)			29.9	51.3	66.9	71.9
- Low technology (4)			7.1	13.8	18.0	20.1
- Mid-level technology (5)			14.6	25.7	33.1	32.8
- High technology (6)			8.2	8.0	15.8	9.0
Other (7)			2.7	3.6	3.4	3.3
III. 10 main exports by contribution			**43.3**	**36.2**	**37.0**	**38.9**
781 Passenger motor vehicle		+	0.6	4.4	7.6	7.5
333 Crude petroleum oils		-	33.2	15.6	7.6	6.2
773 Electricity distribution materials	*	+	1.8	3.3	3.8	3.9
846 Undergarments, knitted or crocheted	*	+	0.6	1.2	2.4	3.2
761 Television receivers	*	+	0.4	1.8	2.7	3.2
764 Telecommunications equipment and parts and accessories	*	-	2.4	2.2	2.9	3.2
752 Machines for automatic data processing	*	+	0.1	1.3	1.9	3.1
782 Motor vehicles for goods transport		+	0.4	0.4	2.2	2.9
931 Special transactions not classified according to kind	*	+	1.9	2.9	2.8	2.8
784 Motor vehicle parts and accessories		+	1.9	3.1	3.0	2.8

Source: ECLAC, on the basis of the CAN computer program.

Groups of goods based on the Standard International Trade Classification (SITC Rev.2).

(1) Contains 45 simply processed commodities, including concentrates.

(2) Contains 65 items: 35 agricultural/forestry groups and another 30 (mostly metals -except steel-, petroleum products, cement, glass, etc.).

(3) Contains 120 groups which represent the sum of (4) + (5) + (6).

(4) Contains 44 items: 20 groups of the textile-wearing apparel cluster, plus another 24 (paper products, glass and steel, jewels).

(5) Contains 58 items: 5 groups from the motor vehicle industry, 22 from the processing industry and 31 from the engineering industry.

(6) Contains 18 items: 11 groups from the electronics cluster plus another 7 (pharmaceutical products, turbines, aeroplanes,instruments).

(7) Contains 9 unclassified groups (mostly from section 9).

[a] Groups that correspond (*) to the 50 fastest-growing in world imports, 1985-1998.

[b] Groups in which Mexico and the Caribbean Basin gained (+) or lost (-) market share in world imports, 1985-1998.

had increased the proportion of non-resource-based manufactures in their exports from 29.9% to 71.9%. The difference between the two subregions is also apparent in the types of products exported in 1998. South America's ten main exports consisted almost exclusively of natural resources, such as crude petroleum oils, feeding stuff for animals, petroleum products, coffee, copper, fruit and nuts, the sole exception being the intraregional countertrade of the Mercosur motor vehicle industry. Mexico and the Caribbean Basin, however, specialized in non-resource-based manufactures, the motor vehicle industry, electronics and clothing. Two more disparate situations in terms of international competitiveness can hardly be imagined.

The effects of TNC market entry on the industrial map of the region are outlined in table I.8. As shown in that table, foreign ownership of companies became much more widespread in the region in the 1990s, reducing the

Table I.8
LATIN AMERICA AND THE CARIBBEAN: 500 LARGEST FIRMS, 1990-1999
(Number, millions of dollars and percentages)

	1990-1992	1994-1996	1998-1999
BY OWNERSHIP			
Number of firms	500	500	500
Foreign	149	156	230
Private domestic	264	280	230
State-owned	87	64	40
Sales	361 009	601 794	640 948
Foreign	99 028	193 335	275 742
Private domestic	142 250	246 700	244 874
State-owned	119 731	161 759	120 333
Distribution of ownership	100.0	100.0	100.0
Foreign	27.4	32.1	43.0
Private domestic	39.4	41.0	38.2
State-owned	33.2	26.9	18.8
BY SECTOR			
Number of firms	500	500	500
Primary sector	50	46	47
Manufactures	278	264	237
Services	172	190	216
Sales	361 009	601 794	640 948
Primary sector	100 058	143 540	122 395
Manufactures	153 001	259 942	264 640
Services	107 950	198 313	253 913
Distribution by sector	100.0	100.0	100.0
Primary sector	27.7	23.9	19.1
Manufactures	42.4	43.2	41.3
Services	29.9	33.0	39.6

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information supplied by the Studies Department of the magazine *América economía* for the trienniums 1990-1992 and 1994-1996, and information published in the magazines *La nota*, April 2000; *Gestión*, June 2000; *Mercado*, July 2000; *América economía*, 27 July 2000; *Expansión*, 19 July 2000, and *Gazeta mercantil*, October 2000, for 1998 and 1999.

extent of both State ownership and domestic private holdings. The number of foreign companies which figure among the region's 500 largest companies increased from 149 (less than a third of the total) at the beginning of the decade, to 230 (almost half the total) by the end of the decade. Over the same period, the number of private domestic firms in the top 500 decreased from 264 to 230, and the number of State enterprises fell drastically from 87 to 40, which was less than 10% of the total. In the 1990s foreign firms increased their share in the sales of the 500 largest enterprises from 27% in the period 1990-1992 to 43% in the period 1998-1999, while the sales share of private domestic firms stayed relatively stable at around 40%, and State enterprises saw their share of sales in this group fall considerably, from 33% to 19% between the periods 1990-1992 and 1998-1999. The sectoral distribution of the sales of the largest 500 firms also reflects a change in industrial structure which is associated with these ownership changes. The proportion of the sales of this regional group accounted for by service companies increased from 30% in 1990-1992 to 40% in 1998-1999, while manufacturing sales remained stable at around 42% and the sales of primary sector companies fell from 28% to 19%.

This trend was not linear, however. In fact, an examination of these indicators by five-year periods reveals two distinct stages in the economic reform and transnationalization processes that the regional economies experienced in the 1990s. Changes in industrial typology in the first five years of the decade reflect the early stages of the process of liberalization and privatization in the region, in which private domestic capital was actively involved, while the sectoral distribution of investments continued along relatively traditional lines. Both domestic and foreign private firms

thus increased their share during this period at the expense of the State-owned enterprises which were in the process of privatizing. In the first five years of the decade, the number of domestic private firms figuring among the region's 500 largest increased from 264 to 280 and the sales of these firms increased from 39% to 41% of the total, while the number of foreign firms increased from 142 to 154 and their sales from 27% to 29%. In this period there were no major changes in the sectoral structure of the sales of the region's 500 largest companies.

Heavy flows of FDI in the second half of the 1990s were to bring the major changes that are evident today in the main economic sectors of the region, in terms of both ownership structure and industrial composition. As discussed in the previous section, FDI inflows more than tripled from one five-year period to the next (see table I.1). On the industrial map of the region, the changes in foreign ownership among the 500 largest companies between 1995 and 1999 clearly show the market entry of transnational corporations, particularly in services, by means of a very active role in privatizations and an aggressive policy of acquiring private domestic firms, many of which had been privatized in the preceding five-year period. The major progress of Brazil's privatization and reform process in the latter half of the 1990s, in particular, was fundamental in this stage of the regional transformation.

The trends in ownership of the 500 largest firms in Latin America during the 1990s are even more marked in the subgroup of the region's 100 largest manufacturing firms. As shown in table I.9, in the period 1990-1992 the ownership of the top 100 private manufacturing companies in Latin America was equally distributed between domestic and foreign capital, as there were 48 companies in each category plus four State-owned enterprises. The distribution of sales between domestic and foreign companies in 1990-1992 also indicates that at the beginning of the decade foreign holdings were concentrated in the larger manufacturing firms. Towards the end of the 1990s foreign corporations had massively increased their already large share in the region's main manufacturing firms, both in terms of the number of firms and the percentage of sales. In the period 1998-1999, of the top 100 firms, 59 were in foreign hands, 40 were owned by private domestic capital and just one continued to be State-owned. The sales of foreign firms in that biennium represented 62.7% of total sales.

The ownership and sectoral structure of the region's 200 largest export companies between 1995 and 1999 (see table I.10) also confirm the depth of the transnationalization process in the region in the second half of the decade. In the mid-1990s, 126 of the region's 200 largest export companies were domestically owned (115 privately and 11 by the State), and these generated 70% of the total exports of these 200 firms. In 1999 the total number of domestically-owned firms in this group had fallen to 103, generating 59% of sales. The counterpart to this was that the number of foreign

Table I.9
LATIN AMERICA AND THE CARIBBEAN: 100 MAIN MANUFACTURING FIRMS, 1990-1992, 1994-1996 AND 1998-1999
(Number, millions of dollars and percentages)

	1990-1992	1994-1996	1998-1999
Number of firms	100	100	100
Foreign	48	53	59
Private domestic	48	46	40
Sate-owned	4	1	1
Sales	102 094	176 923	187 789
Foreign	54 293	104 922	117 705
Private domestic	43 463	68 341	70 084
State-owned	4 338	3 661	2 245
Ownership	100.0	100.0	100.0
Foreign	53.2	59.3	62.7
Private domestic	42.6	38.6	37.3
State owned	4.2	2.1	1.2

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information supplied by the Studies Department of the magazine *América economía* for the trienniums 1990-1992 and 1994-1996, and information published in the magazines *La nota*, April 2000; *Gestión*, June 2000; *Mercado*, July 2000; *América economía*, 27 July 2000; *Expansión*, 19 July 2000, and *Gazeta mercantil,* October 2000, for 1998 and 1999.

Table I.10
LATIN AMERICA AND THE CARIBBEAN: 200 LARGEST EXPORTERS, 1995-1999
(Number, millions of dollars and percentages)

	1995	1996	1997	1998	1999
BY OWNERSHIP					
Number of firms	200	200	200	200	200
Foreign	74	78	92	97	97
Domestic private	115	112	88	94	94
State-owned	11	10	10	9	9
Exports (millions of dollars)	92 946	115 317	139 883	133 841	131 041
Foreign	26 822	34 033	57 313	60 315	54 000
Private domestic	34 475	40 253	42 644	43 674	42 989
State-owned	31 649	41 031	39 926	29 852	34 052
Ownership (percentages)	100.0	100.0	100.0	100.0	100.0
Foreign	28.9	29.5	41.0	45.1	41.2
Private domestic	37.1	34.9	30.5	32.6	32.8
State-owned	34.1	35.6	28.5	22.3	26.0
BY SECTOR					
Number of firms	200	200	200	200	200
Primary sector	41	45	36	32	39
Manufacturing	133	132	142	147	138
Services	26	23	22	21	23
Sectors (millions of dollars)	92 946	115 317	139 883	133 841	131 041
Primary sector	40 054	52 643	50 923	38 896	44 992
Manufacturing	46 561	56 091	78 638	85 568	74 825
Services	6 331	6 582	10 322	9 376	11 224
Sectors (percentages)	100.0	100.0	100.0	100.0	100.0
Primary sector	43.1	45.7	36.4	29.1	34.3
Manufacturing	50.1	48.6	56.2	63.9	57.1
Services	6.8	5.7	7.4	7.0	8.6

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information supplied by the Studies Department of the magazine *América economía* for 1995-1998, and the magazines *Gazeta mercantil,* October 2000, and *América economía,* 24 August 2000, for 1999.

companies in this group increased from 74 in 1995 to 97 in 1999, and their share of the foreign sales of the 200 largest export firms grew from less than 30% of the total in 1995 to 41% at the end of the decade.

The same phenomenon of regional penetration is evident in the origin, regional distribution and sectoral specialization of the 100 largest transnational corporations in the region ranked by their consolidated sales in 1999 (see table I.11). In terms of geographical origin, the 48 United States firms which belong to this group generated 43% of the total sales of these 100 firms in 1999, the 38 European Union firms in the group generated 50% of total sales, and the remaining sales were divided among the eight Swiss companies (5%), three Japanese firms (1.6%), two Australian firms (0.6%) and one Canadian (0.2%). Within the European Union, German companies accounted for 13% of total sales, reflecting the weight of the large German motor vehicle industry, while the strong sales of the five Spanish companies in the group (12% of the total) reflected the priority assigned to the region by the large Spanish service and energy companies (see ECLAC, 2000a, chapter III). Also within the European Union, the French companies (with a major share of commerce) accounted for 9% of the group's total sales, six United Kingdom and Netherlands firms together generated 7%

Table I.11

100 LARGEST TRANSNATIONAL FIRMS PRESENT IN LATIN AMERICA, BY CONSOLIDATED SALES, 1999

(Millions of dollars)

ECLAC	Firm	Country of origin	Sector	Argen-tina	Brazil	Chile	Colom-bia	Mexico	Other	Total
1	Telefónica de España S.A.	Spain	Telecoms.	4 634	5 010	698	...	...	2 097	12 439
2	General Motors Corporation (GM)	United States	Motor vehicle	600	3 895	370	181	7 340	39	12 425
3	Volkswagen AG	Germany	Motor vehicle	1 020	3 976	...	...	6 906	...	11 902
4	DaimlerChrysler AG	Germany	Motor vehicle	784	1 610	...	...	7 352	...	9 746
5	Carrefour Group/ Promodés [a]	France	Commerce	5 092	4 469	...	...	...	...	9 561
6	Ford Motor Company	United States	Motor vehicle	1 144	2 406	...	13	4 689	...	8 252
7	Repsol-YPF	Spain	Petroleum	7 980	14	99	16	...	...	8 109
8	Fiat Spa	Italy	Motor vehicle	1 160	6 499	...	...	...	...	7 659
9	Royal Dutch-Shell Group	United Kingdom/ Netherlands	Petroleum	1 834	3 658	768	...	...	189	6 449
10	Exxon Mobil Corporation	United States	Petroleum	1 675	2 625	1 019	948	...	136	6 403
11	International Business Machines (IBM)	United States	Electronics	586	1 500	...	...	3 393	...	5 479
12	Endesa España	Spain	Electricity	814	466	3 790	294	...	111	5 475
13	The AES Corp.	United States	Electricity	753	2 214	512	...	...	1 703	5 182
14	Wal Mart Stores	United States	Commerce	500	534	...	...	3 782	...	4 816
15	Nestlé	Switzerland	Foodstuffs	430	1 770	650	105	1 811	...	4 766
16	Renault/Nissan Motor [a]	France	Motor vehicle	1 139	285	33	38	2 684	...	4 179
17	Unilever	United Kingdom/ Netherlands	Foodstuffs	1 213	1 734	485	170	524	...	4 126
18	Motorola Inc.	United States	Electronics	208	1 000	...	9	2 600	...	3 817
19	Cargill, Incorporated	United States	Foodstuffs	2 059	1482	...	...	...	...	3 541
20	Intel Corporation	United States	Electronics	...	840	...	...	...	2 700	3 540
21	PepsiCo	United States	Beverages	630	189	...	40	2 673	...	3 532
22	Royal Ahold N.V.	Netherlands	Commerce	2 117	811	514	...	...	...	3 442
23	The Coca-Cola Company	United States	Beverages	1 620	395	272	95	891	63	3 336
24	Olivetti Spa./ Italia Telecom [a]	Italy	Telecoms.	2 326	308	385	...	143	...	3 162
25	General Electric (GE)	United States	Machinery	...	...	...	94	3 048	...	3 142
26	Siemens AG	Germany	Machinery	693	839	50	103	1 086	...	2 771
27	BASF AG	Germany	Chemicals	757	1 024	...	...	717	...	2 498
28	Hewlett-Packard	United States	Electronics	317	480	...	...	1 672	...	2 469
29	Aventis (Hoechst AG/ Rhône-Poulenc)	Germany	Chemicals	...	1 068	...	56	1 298	...	2 422
30	The Exxel Group	United States	Various	2 263	...	...	...	...	...	2 263
31	L.M. Ericsson	Suecia	Machinery	...	1 705	...	...	557	...	2 262
32	Philip Morris Companies Inc.[b]	United States	Tobacco	1 757	236	...	...	135	...	2 128
33	Procter & Gamble	United States	Hygiene/ Cleaning	318	...	150	122	1 490	...	2 080
34	BellSouth Corporation	United States	Telecoms.	540	309	...	183	...	949	1 981
35	Nippon Electric Co. (NEC)	Japan	Electronics	...	625	...	...	1270	...	1895
36	Casino Guichard-Perrachon	France	Commerce	581	843	...	259	...	199	1 882
37	E.I. du Pont de Nemours	United States	Chemicals	281	555	...	100	941	...	1 877
38	Xerox	United States	Electronics	157	1 097	...		480	10	1 744
39	Cisco Systems Inc.	United States	Electronics	...	1 723	...	...	...	...	1 723
40	Pirelli S.p.A.	Italy	Tyres	...	1 723	...	...	...	...	1 723
41	Royal Philips Electronics (Koninklijke Philips Electronics N.V.)	Netherlands	Electronics	...	323	...	...	1 370	...	1 693
42	Bayer AG	Germany	Chemicals	350	531	...	...	663	...	1 544
43	Novartis	Switzerland	Chemicals	243	689	...	135	432	...	1 499
44	British American (BAT) Tobacco Plc.	United Kingdom	Tobacco	621	761	108	...	...	...	1 490
45	Anheuser-Busch	United States	Beverages	...	...	114	...	1 292	4	1 410
46	Électricité De France (EDF)	France	Electricity	307	1 089		...	...	...	1 396
47	Holderbank	Switzerland	Cements	258	242	74	...	809	...	1 383

(Table I.11 (continued)

ECLAC	Firm	Country of origin	Sector	Argentina	Brazil	Chile	Colombia	Mexico	Other	Total
48	Eastman Kodak Company	United States	Photography	...	408	...	...	970	...	1 378
49	Lucent Technologies Inc.	United States	Electronics	...	500	...	...	863	...	1 363
50	Compaq Computer Corporation	United States	Electronics	...	698	...	90	557	...	1 345
51	Sony Corporation	Japan	Electronics	...	...	...	...	1 327	...	1 327
52	Groupe Danone	France	Foodstuffs	744	223	...	...	339	...	1 306
53	Glencore International AG	Switzerland	Commerce	1 294	...	...	...	...	...	1 294
54	Colgate-Palmolive	United States	Hygiene/ Cleaning	...	...	...	287	900	...	1 187
55	France Télécom (FTE)	France	Telecoms.	1 186	...	...	...	...	...	1 186
56	Iberdrola S.A.	Spain	Electricity	...	1 112	...	26	...	...	1 138
57	GTE Corporation	United States	Telecoms.	283	...	...	...	...	798	1 081
58	Nabisco Group Holdings [b]	United States	Foodstuffs	516	530	...	...	...	...	1 046
59	Monsanto	United States	Chemicals	530	450	...	40	...	...	1 020
60	Okram South America Holding	Switzerland	Various	...	875	...	103	...	...	978
61	Whirlpool Corporation	United States	Household appliances	...	973	...	...	...	...	973
62	Louis Dreyfus	France	Commerce	700	252	...	...	...	...	952
63	McDonalds	United States	Commerce	210	727	...	...	...	...	937
64	Avon Inc.	United States	Hygiene/ Cleaning	309	523	105	...	...	...	937
65	Kimberly Clark (CK)	United States	Cellulose/ paper	234	...	...	...	699	...	933
66	Broken Hill Proprietary (BHP)	Australia	Mining	...	173	675	...	...	...	848
67	Sonae de Distribuição	Portugal	Commerce	...	843	...	...	...	...	843
68	Parmalat Finanziaria S.p.A.	Italy	Foodstuffs	130	646	60	...	...	...	836
69	Praxair Technologies Inc.	United States	Various	...	825	...	...	...	...	825
70	Iberia Líneas Aéreas de España SA	Spain	Transport	808	...	...	...	...	...	808
71	Kraft Foods International [b]	United States	Foodstuffs	172	320	...	...	305	...	797
72	Electricidade de Portugal	Portugal	Electricity	...	797	...	...	...	...	797
73	BP Amoco Plc. (British Petroleum)	United Kingdom	Petroleum	319	...	...	451	...	...	770
74	Johnson & Johnson	United States	Hygiene/ Cleaning	...	680	...	87	...	...	767
75	Robert Bosch GmbH	Germany	Motor vehicle parts	...	755	...	...	...	...	755
76	Alcoa	United States	Metals	...	745	...	...	...	...	745
77	Deere	United States	Machinery	...	194	...	...	514	...	708
78	Scania AB	Sweden	Motor vehicle	199	493	...	...	...	...	692
79	Grupo André et Cié.	Switzerland	Chemicals	687	...	...	...	...	...	687
80	Gillette	United States	Hygiene/ Cleaning	199	279	...	...	178	...	656
81	PSA Peugeot Citroen S.A.	France	Motor vehicle	645	...	...	...	...	...	645
82	The Goodyear Tire & Rubber Company	United States	Tyres	...	558	...	76	...	...	634
83	Minnesota Mining & Mfg.(3M)	United States	Chemicals	...	317	50	36	210	...	613
84	Roche Holding	Switzerland	Chemicals	210	400	...	...	...	...	610
85	ENI S.p.A.	Italy	Petroleum	...	566	...	...	...	...	566
86	WorldCom	United States	Telecoms.	...	558	...	...	...	...	558
87	Phelps Dodge Corporation	United States	Mining	...	...	469	...	...	82	551
88	Kenworth Motor Truck Co.	United States	Motor vehicle	...	...	...	...	547	...	547
89	Caterpillar	United States	Machinery.	...	370	...	...	165	...	535
90	Southern Energy	United States	Electricity	...	528	...	...	...	...	528

(Table I.11 (concluded)

ECLAC	Firm	Country of origin	Sector	Argentina	Brazil	Chile	Colombia	Mexico	Other	Total
91	Lear Corporation	United States	Motor vehicle parts	...	...	...	...	527	...	527
92	Anglo American Plc.	United Kingdom	Mining	...	...	518	...	...	...	518
93	Portugal Telecom	Portugal	Telecoms.	...	509	...	...	...	...	509
94	John Labatt Limited	Canada	Beverages	...	...	...	...	506	...	506
95	Navistar International	United States	Motor vehicle	...	...	...	...	502	...	502
96	Total Fina Elf	France	Petroleum	481	...	17	...	...	...	498
97	Asea Brown Boveri (ABB)	Switzerland	Various	...	447	...	43	...	...	490
98	Bridgestone	Japan	Tyres	...	489	...	...	...	...	489
99	Sempra Energy	United States	Electricity	228	...	255	...	...	...	483
100	MIM Holding	Australia	Electricity	481	..	...	...	...	...	481

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information published in the magazines *La nota,* April 2000; *Gestión,* June 2000; *Mercado*, July 2000; *América economía*, 27 July 2000; *Expansión*, 19 July 2000, and *Gazeta mercantil*, October 2000.

[a] Generated by mergers and acquisitions in the period 1999-2000.

[b] Kraft and Nabisco (June 2000) are owned by Philip Morris.

of total sales, the five Italian companies accumulated sales equivalent to 6% of the total and the remainder was divided among three Portuguese and two Swedish firms.

With respect to the distribution of sales within the region, the operations of these 100 firms were concentrated to a great extent in the three largest countries. In 1999, 34% of their sales were made in Brazil, 30% in Mexico and 25% in Argentina. In industrial terms, a quarter of the sales of the 100 largest transnational companies were accounted for by the motor vehicle industry, half were divided almost equally among the electronics industry (11% of the total), foodstuffs and beverages (11%), commerce (10%), telecommunications (10%) and petroleum (10%), and the rest was accounted for by other sectors, particularly electricity and the chemical industry, both with around 6% of total sales. A detailed examination of the list of these companies (see table I.11) shows that these geographical and sectoral patterns are repeated at the level of the companies within each country and industry.

The largest firm by volume of consolidated sales in the region in 1999 was Telefónica España, which pursued a very aggressive policy of acquisitions in the region during the 1990s to position itself on the regional markets (see chapter IV). This company was followed closely in terms of regional sales by the United States firm General Motors, and the German firms Volkswagen and DaimlerChrysler, all with major operations in Mexico supplying the North American market, and operations in Brazil supplying Mercosur. Other major motor vehicle companies in this category were the United States firm Ford (sixth place), the Italian Fiat (eighth) and the Franco-Japanese alliance Renault/ Nissan (sixteenth). In a very different industry, the French group Carrefour held fifth place in sales, with strong operations in Argentina and Brazil, which was another sign of the inroads made by major transnationals in the commerce sector seeking to position themselves on the regional markets. Other examples are the United States firm Wal-Mart (fourteenth), which targeted the Mexican market, the Netherlands firm Royal Ahold (twenty-second), with strong activity in Argentina, and the French Casino Guichard (thirty-sixth), which conducted most of its activities in Brazil.

Major transnational petroleum firms seeking to profit from the region's hydrocarbon resources also occupied prominent positions among the large transnationals operating in the region. Based in Argentina, the Spanish firm Repsol-YPF ranked seventh, Royal Dutch Shell of the United Kingdom and the Netherlands ranked ninth, and the United States oil company Exxon Mobil lay in tenth position. The consecutive positions of the region's two largest electricity companies reflected the powerful process of consolidation into two groups which has come about in this sector, with Endesa España holding twelfth place among the largest foreign companies in the region, and AES corporation (see box I.2), thirteenth. Other cases which warrant attention are associated with the foodstuffs and beverages industry, in which large

Table I.12
10 LARGEST TRANSNATIONAL BANKS IN LATIN AMERICA, BY CONSOLIDATED ASSETS, 1999
(Millions of dollars)

ECLAC	Bank	Country of origin	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Vene-zuela	Total
1	Banco Santander Central Hispano (BSCH)	Spain	11 654	17 017	16 798	903	28 664	1 712	3 903	80 651
2	Citibank	United States	10 429	6 384	5 630	1 419	7 901	835	...	32 598
3	Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	6 606	4 730	2 509	2 362	8 247	1 514	2 007	27 975
4	BankBoston	United States	11 350	6 244	6 261	112	516	...	...	24 483
5	ABN Amro Holding	Netherlands	2 802	8 993	3 487	...	115	...	...	15 397
6	Hongkong and Shanghai Banking Holdings PLC. (HSBC Holdings)	United Kingdom	4 456	7 293	1 298	...	394	...	...	13 441
7	Banca Commerciale Italiana	Italy	2 384	6 491	...	384	...	2 808	...	12 067
8	Chase Manhattan Corp.	United States	631	2 010	5 924	...	130		108	8 803
9	Bank of Nova Scotia (Scotiabank)	Canada	2 101	...	4 363	...	112	156	217	6 949
10	Bank of Montreal	Canada	...	...	...	...	5 720	...	...	5 720

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information published in *Gazeta mercantil latinoamericana,* "1000 Mayores Empresas de América Latina", October 2000.

transnationals sought access to regional markets. In this industry the Swiss company Nestlé, the British-Netherlands Unilever and the United States firms Cargill Incorporated, Pepsi Cola and Coca Cola were among the 25 largest transnational companies in the region. Lastly, in the electronics industry, the United States firms IBM (eleventh place), Motorola (eighteenth), General Electric (twenty-fifth) and Hewlett-Packard (twenty-eighth) focussed their regional operations in Mexico on exports to the United States, while Intel (twentieth place) exported large volumes from its plant in Costa Rica.

The transnationalization of the region's productive sectors that is evident in the above analysis was also evident in the financial sector in the 1990s. As shown in table I.12, by 1999 European and North American banks had a major presence in several of the region's countries. Measured by the value of consolidated assets across the region, the foreign bank with the largest presence in 1999 was the Spanish institution BSCH, which controlled assets worth over US$ 80 billion. The second largest Spanish bank in this category was BBVA, which directly controlled assets of over US$ 28 billion throughout the region, to rank third behind the United States institution Citibank. Given that BBVA has pursued a strategy based on gaining control of the management of the institutions in which it has a stake, without necessarily controlling full ownership, this measurement (the regional institution's total assets multiplied by its share in the ownership of the transnational bank) underestimates the true extent of BBVA's control over the regional industry in relation to Citibank and other institutions which prefer to own their subsidiaries outright. As shown in table I.12, other European banks among the ten largest transnational banks in the region in 1999 included the Netherlands institution ABN Amro, Hong Kong and Shanghai Banking Holdings of the United Kingdom, and Banca Commerciale Italiana of Italy. From North America, the group of the ten largest includes BankBoston and Chase Manhattan (United States) and Bank of Nova Scotia and Bank of Montreal (Canada).

2. Competitiveness and emerging strategies: the phenomenon of mergers and acquisitions

As discussed, the trends in FDI flows and changes in industrial structure in the region in the 1990s reveal two distinct stages in the process of reform and transnationalization of the region's economies. After a slow beginning to the reform process, with widespread involvement of regional capital in the first half of the decade, the second half of the 1990s brought a rapid process of change in the different productive sectors, directed and led largely by extraregional capital. Furthermore, FDI flows and the activity of TNCs in the region in the period 1999-2000 appear to suggest that the region's industries are now undergoing a third stage of consolidation of more global dimensions.

Although the strategies and modalities of market entry by TNCs and transformation of domestic economies have varied substantially between countries and subregions, some major features are common to most. Without question, the most innovative forms of FDI from the standpoint of the region in the last two years are mergers and acquisitions, which have become very significant mechanisms of market entry or expansion. This is a reflection of deep-seated global factors; in recent years mergers and acquisitions have served as an instrument of very rapid change in the structure of industrial ownership, pointing to radical restructuring processes that have an impact at both the global and the regional levels. The trends and effects of these phenomena within the region will be discussed later on in varying degrees of detail. Before looking at the regional situation, however, it is useful to situate the regional phenomenon within the wider global context.

(a) Mergers and acquisitions and new features of competitiveness: the global phenomenon

In terms of investment modalities, the most significant global development of recent years has been the spiralling number of transborder mergers and acquisitions and the dramatic increase in the amounts involved.[11] In fact, the annual resources disbursed in this type of operation almost quadrupled between 1995 and 1999, growing from just above US$ 186 billion in the middle of the decade to over US$ 720 billion by the end of the period. In 1999 alone, transborder merger and acquisition operations involved resources equivalent to 8% of world GDP (UNCTAD, 2000). Moreover, the intensive merger and acquisition activity recorded in both developed and developing countries in 2000 would suggest that the sums involved were even greater that year. This very rapid change in the ownership structure of major productive assets reflects a process of industrial restructuring which has ramifications in almost all the regions of the world. Further analysis is required in order to understand the determinants and potential effects for Latin America and the Caribbean of the current expansion of world FDI flows.

The geographical distribution of transborder mergers and acquisitions provides some pointers to help characterize the underlying phenomenon of industrial restructuring. Although almost all regions of the world have been involved to some extent, it is clear that the sharp increase in mergers and acquisitions in the last five years has been concentrated in the more developed countries and regions; almost 90% of the resources involved in transborder mergers and acquisitions in 1999 were directed at assets in developed countries.[12] Although developing countries also recorded an increase in absolute terms in the resources directed at this type of operations, the phenomenon has been highly focussed on the developed world. The trend of mergers and acquisitions to be concentrated in more developed areas is also apparent within developing regions, where the main targets of mergers and acquisitions resources have been relatively high-income countries in South-East Asia and Latin America, which are regions with more consolidated industries.

The sectoral distribution of the firms involved also provides some useful elements for analysis. One noteworthy feature in this respect is the virtually non-existent incidence of the primary sector among

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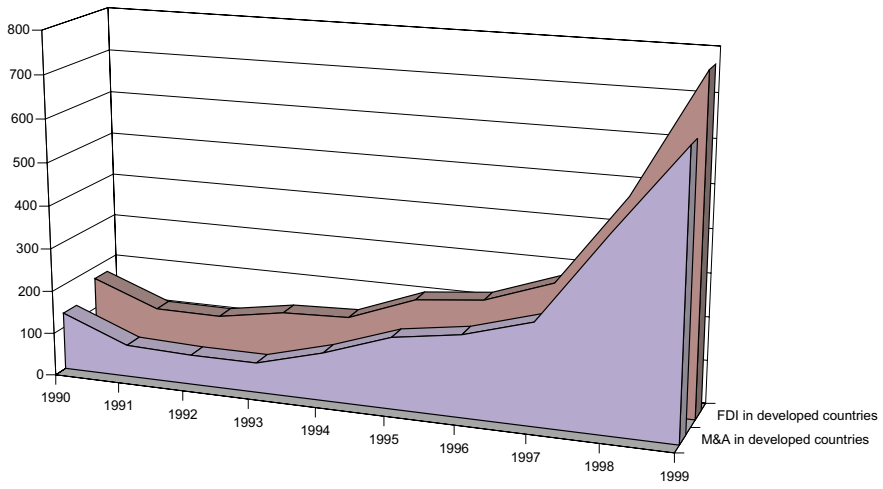
11 It is methodologically incorrect to directly compare the figures for FDI flows from balance-of-payments information with the amounts corresponding to transborder merger and acquisition transactions (see UNCTAD, 2000 for a discussion of methodology). Just as a reference, however, it is interesting to note that the total resources involved in transborder mergers and acquisitions in 1999 were equivalent to almost 95% of global FDI flows that year, and showed similar trends in more recent years (see figure I.6).

12 Although in this text we use the general term "mergers and acquisitions" to refer to these operations, only a very small number of them are pure mergers. Thus, although the financial and legal frameworks for these operations and the identity of the parties once the transaction has been completed may vary, in the great majority of cases the acquiring and acquired parties can be clearly identified.

Figure I.6
TRANSBORDER MERGERS AND ACQUISITIONS AND FOREIGN DIRECT INVESTMENT IN DEVELOPED COUNTRIES
(Billions of dollars)



Source: ECLAC, Information Centre, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of the International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2000: Cross-border Merger and Acquisitions and Development* (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20.

either acquired assets or purchasing firms. In 1999 the total value of mergers and acquisitions in the primary sector represented barely 1% of the overall value. In contrast, the process of mergers and acquisitions has been particularly intensive in the services sector, closely followed by manufacturing. In 1999, 56% of the value of assets purchased through mergers and acquisitions were in the tertiary sector and 43% in manufacturing; moreover, these proportions had been relatively stable throughout the preceding five-year period. These percentages were not significantly different among the purchasing companies either, which was attributable to the fact that a high proportion of transborder mergers and acquisitions took place between companies in the same sector. There were some differences within sectors with respect to the activities of the buying and bought parties; further analysis of this may help to pinpoint the underlying restructuring process.

Examination of the industries of origin of the purchasing firm and the acquired assets provides some keys to the competitive factors that influence the decision to go ahead with a merger or an acquisition. The production or market relationship between the firms involved is particularly revealing. If the firms which join forces via a merger or an acquisition are in the same area of production and are therefore actual or potential competitors, the merger or acquisition is of the horizontal variety, and is usually motivated by the need to economize by consolidating parallel operations and/or market power. If the firms are located at different stages of a production chain, however, then the operation is of the vertical type. The motivation in this case is to reduce

transaction costs and uncertainties within the production chain. A third possibility is that the firms are not related at all, and therefore form a conglomerate. In this case the operations seek to reduce risk or to generate economies of scope. Horizontal operations were the main driver of the process in recent years, with a value equivalent to 70% of total transborder mergers and acquisitions in 1999. The total value of vertical operations did not reach 10% of the total in any single year of the decade and the value of conglomerate operations decreased from over 40% of the total in 1991 to 27% in 1999 (UNCTAD, 2000).

The global wave of mergers and acquisitions at the end of the 1990s was therefore highly concentrated in horizontal consolidations. Observation of the industries most heavily involved in the process gives an insight into some of the more long-term determinants of this trend. The industries most involved are those in which the parameters that define competitiveness have changed very rapidly in different ways in recent years in the wake of global technological and institutional changes linked to the process of globalization. In terms of the institutional framework, deregulation and the increase in trade and investment flows and in cultural exchanges have accelerated the formation of markets which even if they cannot be described as genuinely global cover increasingly extensive areas of the globe. Deregulation has also allowed major actors greater freedom to try to increase their market influence and capture monopoly rents. With regard to technology, change has come about in at least two significant dimensions. The first concerns the speed and strategic nature of technological change in some industries, in which competitiveness hinges on the ability to assimilate new technology rapidly. The second technological dimension concerns the impact of the digital revolution and the development of telecommunications on the capacity of firms to handle great volumes of information over large geographical distances, and on the development of cultural codes and patterns of consumption that are increasingly global.

Although the general determinants are common, the specific motivations for consolidation thus vary from one industry to another, depending on the factors that determine competitiveness in each. It is possible to distinguish at least two overall types of industry that have witnessed strong consolidation through mergers and acquisitions in recent years. The first group includes activities which are very capital intensive and/or heavily dependent on technological innovation, such as the motor vehicle, pharmaceutical, telecommunications (see chapter IV for an account of this sector), electricity and banking industries. In this case, horizontal mergers and acquisitions reduce competition, eliminate excess capacity and spread the high costs of research and development. The second type of group covers activities with relatively standardized products which are directed almost wholly at the final consumer. Although less dependent on technological innovation, these industries such as foodstuffs, beverages, tobacco and clothing rely heavily on marketing and distribution activities. As well as reducing competition, mergers and acquisitions in these industries serve to generate economies of scale in marketing and distribution and increase negotiating capacity with suppliers. It is not surprising, therefore, that during recent years the pattern of industrial concentration at the world level has become more marked in these industries also.

The depth of the industrial restructuring process led by large transnational companies raises questions about the distribution between actors and regions of the benefits of the technological and institutional changes in the global economy. It is extremely important to grasp the impact of these changes on the countries of the region, in terms of both the well-being of their populations and their potential for economic development. The rest of this chapter seeks to contribute to a reflection on this issue by providing a brief overview of merger and acquisition patterns in Latin America in the last two years.

(b) Mergers and acquisitions: the regional impact in 1999-2000

The global process of mergers and acquisitions has had both direct and indirect effects on Latin America and the Caribbean. The direct effects concern the local consequences of the phenomenon as regional production units are acquired by extraregional companies and the industries in which they operate are restructured and consolidated. The indirect effects refer to the impact of certain extraregional acquisitions or mergers on the industrial map of the region, as they alter the structure of ownership of subsidiaries in Latin America.

The rest of this section will focus on the direct impact of the process of mergers and acquisitions in the region, examining both sectoral and industrial trends and the features of restructuring processes that involve mergers and acquisitions in specific industries. Nevertheless, it is important to bear in mind that mergers and acquisitions outside the region can affect industries in the region. Some recent examples are the mergers between the main Spanish banks, the Renault-Nissan

merger, and, had it gone ahead, the potential impact of the merger between the Spanish energy companies Endesa and Iberdrola that was proposed in 2000.[13] By consolidating their investments in the region, the large Spanish banking mergers that generated BBVA and BSCH sharply increased the concentration of the banking industry in some countries of the Americas (see box I.1). The merger of Renault and Nissan enabled these companies to consolidate and rationalize their assets in the region; it has already been announced that the Mexican Nissan plants in Aguascalientes and Cuernavaca will begin producing Renault automobiles, while the Renault plant in Argentina will produce Nissan automobiles. Had it not been called off, the merger between Iberdrola and Endesa España would have consolidated assets which the two companies control separately in Brazil, on the one hand, and Colombia and Chile, on the other, causing problems of industrial concentration, particularly in Brazil. Under Brazilian law, no single company may control a market share of more than 35% of the area in which it operates or more than 25% of the national total, meaning that the merged institution would have had to sell assets in the northeastern Brazil to comply with this legislation (América economía, 25 January 2001).

One of the fundamental changes in the pattern of acquisitions of firms in the region in the last biennium was a relative decrease in the purchase of State-owned assets as a market-entry mechanism and a sharp increase in acquisitions of private companies. The drop in FDI inflows through the sale of State assets is a region-wide phenomenon that is attributable to the natural end of the process: after a decade of very intensive privatization activity (see table I.8), most of the traditional State enterprises in the areas of telecommunications, energy and finance were already in private hands. In recent years tenders and licensing of public services to the private sector have increased, partially offsetting the decline in large privatizations of previous years; even so, the total resources involved in privatizations, concessions and tenders together has fallen both in absolute terms and relative to total FDI flows. In the biennium 1999-2000, total resources involved in operations worth over US$ 100 million amounted to US$ 19.462 billion (see table I.13), which was much lower than the figure of US$ 87.518 billion recorded in mergers and acquisitions of private companies involving over US$ 100 million in the region in the same period.

In the category of privatizations, concessions and tenders involving more than US$ 100 million in the period 1999-2000, large operations in the primary sector included Repsol's purchase of the share of YPF that was still controlled by the Argentine State, at a cost of US$ 2.011 billion, and the concession awarded by the Peruvian Government to a consortium of Argentine, United States and Korean companies to operate the Camisea gas field. The services sector saw privatizations in 1999-2000 for over US$ 100 million involving British, French, Spanish and United States companies in Argentina and Chile, and concessions were awarded to foreign companies to operate airports in Colombia, Costa Rica, Chile, Mexico and the Dominican Republic. Although to a lesser extent than in earlier years, the sectors traditionally associated with privatizations also recorded some operations of over US$ 100 million in the biennium: in the energy sector assets were privatized in Brazil, Ecuador, El Salvador, Guatemala, Mexico, Peru and the Dominican Republic, involving United States and European companies, and in telecommunications cellular telephony concessions were awarded in Argentina, Brazil and Peru. The largest privatization of the biennium in terms of resources disbursed took place in the financial sector, with the purchase of Banespa in Brazil by BSCH at a cost of US$ 3.55 billion in 2000 (see box I.3).

As mentioned earlier, most of the regional mergers and acquisitions in the last biennium involved purchases of private firms (see table I.14). The largest operation of this type in the primary sector was Repsol's acquisition of 83.2% of the shares of the Argentine company YPF from private shareholders for a total price of US$ 13.158 billion. In the manufacturing sector, the relatively small number of operations involving over US$ 100 million included the United States firm Bestfoods' purchase of the foodstuffs company Arisco Industrial in Brazil for US$ 752 million and the acquisition by Aladis of Spain of a 50% stake in the tobacco company Habanos de Cuba at a cost of US$ 500 million. Operations in the electricity sector in the period included three large acquisitions, in 2000, by the United States firm AES Corporation in Brazil, Chile and Argentina, for over US$ 1 billion apiece (see box I.2). Also in the electricity sector, in 1999 Endesa España gained control of the Chilean company Enersis for US$ 2.146 billion and, through Enersis, acquired control of Endesa Chile with a capital outlay of US$ 1.45 billion. The commerce sector also saw

13 The failure of the merger being negotiated by the two companies, which was announced on 5 February 2001, was largely due to a decision handed down by a Spanish court which amended some of the rules governing operations in the country's electricity sector and would have obliged the company resulting from the proposed merger to sell a number of assets.

Table I.13

LATIN AMERICA AND THE CARIBBEAN: PRIVATIZATIONS AND TENDERS INVOLVING FOREIGN INVESTMENTS OF OVER US$ 100 MILLION, BY SECTOR AND AMOUNT, 1999-2000

(Millions of dollars)

Firm	Country	Buyer	Country of origin	Percentage of foreign capital	Amount	Year
1. PRIMARY SECTORS					**4 681**	
OIL AND GAS					4 157	
Yacimientos Petrolíferos Fiscales (YPF)	Argentina	Repsol-YPF	Spain	15.0	2 011	1999
Reserva de Gas Camisea	Peru	Pluspetrol Energy S.A. Hunt Oil Co. SK Corporation	Argentina United States Korea		1 600	2000
First round of oil blocks	Brazil	Exxon Mobil Corporation Elf Aquitaine Repsol-YPF Royal Dutch-Shell Group	United States France Spain Netherlands		286	1999
Concession of 21 exploration areas	Brazil	Petroleum Brasileiro SA (PETROBRAS) Companhia Brasileira de Petróleo Ipiranga Chevron Corporation Queiroz Galvão	Brazil Brazil United States Brazil		260	2000
MINERAL EXTRACTION					**524**	
Construction of Antamina slurry line	Peru	Spie Capag S.A. Ingenieros Civiles y Contratistas Generales S.A.(ICCGSA)	France Peru		140	2000
Cerrejón Zona Norte (CZN) Coal Mine	Colombia	Anglo American P.L.C.	United Kingdom	16.7	128	2000
Cerrejón Zona Norte (CZN) Coal Mine	Colombia	Billiton P.L.C.	United Kingdom	16.7	128	2000
Cerrejón Zona Norte (CZN) Coal Mine	Colombia	Glencore International A.G.	Switzerland	16.7	128	2000
2. MANUFACTURES					**0**	
3. SERVICES					**14 781**	
WATER					**2 504**	
Companhia de Generação de Energia Elétrica Paranapa-Nema	Brazil	Duke Energy	United States	39.0	692	1999
Empresa Metropolitana de Obras Sanitarias (EMOS)	Chile	Suez Lyonnaise des Eaux	France	25.6	492	1999
Empresa Metropolitana de Obras Sanitarias (EMOS)	Chile	Aguas de Barcelona (AGBAR)	Spain	25.6	492	1999
Operation of sanitation services in Buenos Aires	Argentina	Azurix	United States		439	1999
ESSBÍO (Empresa de Servicios Sanitarios del Bío-Bío)	Chile	Thames Water P.L.C.	United Kingdom	42.0	282	2000
Water and refuse services of Manaus Saneamiento	Brazil	Suez Lyonnaise des Eaux	France		107	2000

Cuadro I.13 (continued)

Firm	Country	Buyer	Country of origin	Percentage of foreign capital	Amount	Year
TRANSPORT					**1 428**	
Operation of four airports	Dominican Republic	Ogden Corp.	United States		400	1999
Juan Santamaría de San José Airport	Costa Rica	Airport Group International (AGI)	United States		279	1999
Operation South-East Airport	Mexico	Groupe GTM	France		276	1999
		Controladora Internacional de transporte aéreo (CINTRA S.A. de C.V.)	Mexico			
		Copenhagen Airport	Denmark			
Alfonso Bonilla Aragón Airport	Colombia	Consorcio Aerocali S.A.	Colombia		120	2000
Operation of two rail network systems	Colombia	Red Nacional de Ferrocarriles (RENFE)	Spain		120	2000
		Ferrocarriles de la Generalitat de Cataluña (FGC)	Spain			
Port of San Antonio	Chile	Sudamericana Agencias Aéreas y Marítimas (SAAM)	Chile		121	1999
		SAA Holding	Chile			
Second urban concession North-South system	Chile	Grupo Dragados	Spain		112	2000
		Skanska BOT AB	Sweden			
		Empresa Constructora Brotec S.A.	Chile			
		Empresa Constructora Belfi S.A.	Chile			
ELECTRIC POWER					**4 314**	
Companhia Energética de Pernambuco (CELPE)	Brazil	Iberdrola S.A.	Spain	79.6	1 000	2000
CESP- Hidrovia Tiete-Paraná	Brazil	The AES Corp.	United States	38.7	480	1999
Bajio Power Project	Mexico	Intergen Aztec Energy	Mexico		430	1999
Electricity generation	Ecuador	Wartsila Power	Finland		350	1999
Building and Operation Rosarito IV	Mexico	Intergen Aztec Energy	Mexico		335	2000
Gas distribution to south São Paulo	Brazil	Gas Natural SDG	Spain		298	2000
Empresa de Distribución de Energía Eléctrica Norte y Sur	Dominican Republic	Unión Fenosa Desarrollo y Acción Exterior (Ufacex)	Spain	50.0	212	1999
Termoeléctrica Campeche	Mexico	Transalta	Canada		200	2000
Companhia de Electricidade do Estado da Bahia	Brazil	Consorcio Guaraniana	Brazil	31.3	185	1999
Empresa Generadora de Electricidad Haina	Dominican Republic	Enron	United States	50.0	145	1999
Generadora Acajutja S.A.	El Salvador	Duke Energy	United States	80.0	125	1999
Construction of Represa Cuchiquesera	Peru	Lockheed Martin	United States		124	1999
Empresa de Generación Eléctrica Norperú (EGENOR)	Peru	Duke Energy	United States	30.0	112	2000
Empresa Distribuidora Eléctrica del Este	Dominican Republic	The AES Corp.	United States	50.0	109	1999
Companhia Energética do Amazonas (CEAM)	Brazil	Eletrobrás (Eletrobras)	Brazil	96.4	108	2000

Cuadro I.13 (concluded)

Firm	Country	Buyer	Country of origin	Percentage of foreign capital	Amount	Year
Instituto Nacional de Electrificación (INDE)	Guatemala	Unión Fenosa Desarrollo y Acción Exterior (Ufacex)	Spain	80.0	101	1999
TELECOMMUNICATIONS					**1 184**	
Band B to operate PCS in Greater Buenos Aires	Argentina	France Télécom (FTE)	France		350	1999
		Telecom Italia Spa	Italy			
		Telefónica de España S.A.	Spain			
Band A for PCS in Greater Buenos Aires	Argentina	GTE Corporation	United States		301	1999
PCS in the interior	Argentina	Telefónica de España S.A.	Spain		198	1999
		Telecom Italia Spa	Italy			
		France Télécom (FTE)	France			
		BellSouth Corporation	United States			
Cellular Band PCS	Peru	Telecom Italia Spa	Italy		180	2000
Eletronet	Brazil	The AES Corp.	United States	51.0	155	1999
CONSTRUCTION					**750**	
Road concession Santiago-Talca, Panamerican Highway	Chile	Controladora Internacional de Transporte Aéreo (Cintra S.A. de C.V.)	Mexico		750	1999
		Banco Santander Chile	Chile			
FINANCIAL SERVICES					**4 421**	
Banco do Estado de São Paulo (BANESPA)	Brazil	Banco Santander Central Hispano (BSCH)	Spain	33.0	3 550	2000
Banco do Estado do Paraná (BANESTADO)	Brazil	Banco Itaú	Brazil	88.0	871	2000
Total					**19 282**	

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information published in the Latin American specialized press.

significant purchases, involving the French company Casino Guichard in Argentina, Brazil and Colombia, and the French company Carrefour in Brazil.

The highest level of activity in acquisitions of private firms was observed in the telecommunications sector, with Telefónica España being the most active player in the period 1999-2000. In the venture known as "Operation Veronica" alone, this company invested resources amounting to US$ 19.778 billion through share-swap operations in Argentina, Brazil and Peru (see chapter IV and footnote 3, in this chapter). Other major players in telecommunications acquisitions in the period were Portugal Telecom in Brazil, Telecom Italia in Brazil and Chile, and BellSouth in cellular telephony in

Table I.14

LATIN AMERICA AND THE CARIBBEAN: PRIVATE FIRMS PURCHASED BY FOREIGN INVESTORS FOR OVER US$ 100 MILLION, BY SECTOR AND AMOUNT, 1999-2000

(Millions of dollars)

Firms sold	Country	Buyer	Country of origin	Percentage acquired	Amount	Date
1. PRIMARY SECTORS					**16 073**	
MINERAL EXTRACTION					**1 060**	
Sociedade Anônima Mineração da Trinidade SA (SAMITRI)	Brazil	Companhia Vale do Rio Doce (CVRD)	Brazil	63.1	525	2000
Compañía Minera Zaldivar	Chile	Placer Dome Inc.	Canada	50.0	251	1999
Sociedade Anônima Mineração da Trinidade SA (SAMITRI)	Brazil	Companhia Vale do Rio Doce (CVRD)	Brazil	36.1	181	2000
Compañía Minera Quebrada Blanca SA	Chile	Aur Resources Inc.	Canada	29.3	103	2000
PETROLEUM AND GAS					**15 013**	
Yacimientos Petrolíferos Fiscales (YPF)	Argentina	Repsol-YPF	Spain	83.2	13 158	1999
Compañía de Petróleos de Chile S.A. (COPEC)	Chile	AntarChile (Grupo Angelini)	Chile	30.1	1 233	1999
Villano Oilfield	Ecuador	Agip	Italy	60.0	214	1999
Sodigas	Argentina	Sempra Energy	United States	21.5	145	2000
CMS Oil Ecuador	Ecuador	Crestar Energy Inc.	Canada	100.0	142	2000
Sudelektra Argentina	Argentina	Pérez Companc (PECOM)	Argentina	100.0	121	2000
2. MANUFACTURES					**6 089**	
FOODSTUFFS, BEVERAGES AND TOBACCO					**3 362**	
Arisco Industrial Ltda.	Brazil	Bestfoods	United States	100.0	752	2000
Habanos	Cuba	Alliance Tabac Distribution (Altadis)	Spain	50.0	500	1999
Molinos Río de la Plata	Argentina	Grupo Pérez Companc	Argentina	60.0	377	1999
Frigorífico Chapecó	Brazil	Socma Sociedad Macri	Argentina	100.0	255	1999
Canale	Argentina	Terrabusi	Argentina	100.0	223	1999
EWOS Chile S.A.	Chile	Statkorn A.S.	Norway	100.0	220	2000
Inca Kola	Peru	The Coca-Cola Company	United States	50.0	200	1999
Coca-Cola Embonor S.A. (formerly Embotelladora Arica S.A.)	Chile	Coca Cola (Coca-Cola) de Chile S.A.	Chile	27.3	186	1999
Embotelladoras Coca-Cola Perú (ex ELSA)	Peru	Coca-Cola Embonor S.A.(ex Embotella-dora Arica S.A.)	Chile	100.0	186	1999
Termas de Villavicencio	Argentina	Grupo Danone Argentina	Argentina	100.0	135	1999
Companhia Mineira de Refrescos	Brazil	The Coca-Cola Company	United States	100.0	120	2000
Perma Indústria de Bebidas S.A.	Brazil	Embotelladora Andina S.A.	Chile	100.0	108	1999
La Serenísima-Fábrica de Yogures y Postres	Argentina	Grupo Danone Argentina	Argentina	40.0	100	1999

Table I.14 (continued 1)

Firms sold	Country	Buyer	Country of origin	Percentage acquired	Amount	Date
OTHER MANUFACTURES					**2 727**	
Brennand Group	Brazil	Cimentos de Portugal (Cimpor)	Portugal	...	594	1999
Productos Sanitarios (PROSAN)	Argentina	Procter & Gamble Argentina	Argentina	50.0	375	1999
Companhia Vale do Rio Doce (CVRD)	Brazil	Billiton P.L.C.	United Kingdom	2.1	327	1999
Corporación Cressida	Honduras	Unilever	United Kingdom	100.0	314	2000
Brasmotor S.A.	Brazil	Whirlpool Corporation	United States	...	283	2000
Sabo Indústria e Comércio Ltda.	Brazil	Federal Mogul Corporation	United States	...	180	1999
SLC John Deere	Brazil	Industrias John Deere	Mexico	60.0	174	1999
Deten Química S.A.	Brazil	Petroquímica Española S.A. (PETRESA)	Spain	72.0	151	2000
NEC Manufacturing Facility	Brazil	Celestica Inc.	Canada	100.0	120	2000
Elevadores Sur	Brazil	Thyssen Krupp	Germany	100.0	109	1999
DHB Componentes Automotivos S.A.	Brazil	DHB Componentes Automotivos S.A.	Brazil	49.0	100	1999
3. SERVICES					**65 356**	
LEISURE					**2 930**	
Atlántida Comunica-ciones SA (ATCO)	Argentina	Telefónica de España S.A.	Spain	100.0	1 200	2000
Grupo Clarín	Argentina	The Goldman Sachs Group, Inc.	United States	18.0	500	1999
Televisión Azteca	Mexico	Grupo Salinas y Rocha	Mexico	19.0	316	2000
Metrópolis Intercom	Chile	Comunicaciones Cordillera S.A.	Chile	40.0	270	2000
VTR Global Com S.A. (ex VTR Cablexpress S.A.)	Chile	UnitedGlobal Com., Inc.(ex United Inter-national Holding)	United States	60.0	258	1999
América TV	Argentina	Grupo Carlos Ávila	Argentina	80.0	150	2000
Globo Cabo S.A.	Brazil	Microsoft Corporation	United States	12.0	126	1999
Cablevisión de Comahua	Argentina	Hicks, Muse, Tate & Furst Incorporated	United States	100.0	110	1999
WATER					**725**	
Companhia de Generação de Energia Elétrica Paranapa-Nema	Brazil	Duke Energy	United States	51.0	289	2000
Aguas Cordillera	Chile	Empresa Metropo-litana de Obras Sanitarias (EMOS)	Chile	100.0	193	2000
Aguas Puerto	Chile	Anglian Water	United Kingdom	72.0	137	2000
Manaus Saneamento (COSAMA)	Brazil	Suez Lyonnaise des Eaux	France	90.0	106	2000

Table I.14 (continued 2)

Firms sold	Country	Buyer	Country of origin	Percentage acquired	Amount	Date
COMMERCE					**4 012**	
Grupo Pão de Açúcar	Brazil	Casino Guichard-Perrachon	France	26.0	865	1999
Tía	Argentina	Supermercados Norte	Argentina	100.0	628	1999
Wal-Mart de México SA de CV (Cifra S.A.)	Mexico	Wal-Mart Stores	United States	6.0	600	2000
Sociedad Rainha, Dallas y Continente	Brazil	Carrefour Brazil	Brazil	40.0	485	1999
Supermercados San Cayetano	Argentina	Casino Guichard-Perrachon	France	75.0	250	1999
Almacenes Exito	Colombia	Casino Guichard-Perrachon	France	25.0	205	1999
Devoto Hnos.	Uruguay	Supermercados Disco del Uruguay	Uruguay	96.0	200	2000
Mineirão	Brazil	Carrefour Brazil	Brazil	100.0	200	1999
Supermercados Ekono Argentina	Argentina	Disco S.A.	Argentina	100.0	150	1999
Supermercados Americanos	Argentina	Disco S.A.	Argentina	100.0	150	1999
Supamer S.A.	Argentina	Disco S.A.	Argentina	100.0	150	1999
Supermercados González e Hijos	Argentina	Disco S.A.	Argentina	100.0	129	1999
CONSTRUCTION					**137**	
CCC Fabricaciones y Construcciones, S.A. de C.V.	Mexico	Global Industries, Ltd.	United States	...	137	1999
TELECOMMUNICATIONS					**30 193**	
Telefónica do Brasil (ex TELESP S.A.)	Brazil	Telefónica de España S.A.	Spain	62.7	10 423	2000
Telefónica de Argentina S.A. (TASA)	Argentina	Telefónica de España S.A.	Spain	44.2	3 718	2000
Telefónica del Perú S.A. (ex Entel Perú)	Peru	Telefónica de España S.A.	Spain	56.7	3 218	2000
Tele Sudeste Celular SA	Brazil	Telefónica de España S.A.	Spain	73.4	2 419	2000
GlobeNet Communications Group Limited	Bermudas	Worldwide Fiber, Inc.	Canada	100.0	1 000	2000
Cablevisión S.A.	Argentina	CEI Citicorp Holdings SA	Argentina	35.9	940	2000
Vésper (Vesper)	Brazil	Velocom Inc.	United States	34.4	875	2000
Empresa Nacional de Telecomunicaciones S.A. (ENTEL)	Chile	Telecom Italia Spa	Italy	25.6	820	2000
Companhia Riograndense de Telecomunicações (CRT)	Brazil	Brasil Telecom Participações (ex Tele Centro Sul Participações)	Brazil	32.0	800	2000
Telesp Celular S.A. (TCP)	Brazil	Portugal Telecom S.A.	Portugal	10.1	756	2000
Patagon.com	Argentina	Banco Santander Central Hispano (BSCH)	Spain	75.0	585	2000
Compañía Celular de Colombia (COCELCO, S.A.)	Colombia	Celumóvil S.A	Colombia	100.0	414	2000
Smartcom PCS (ex Chilesat Telefonía Personal)	Chile	Endesa España	Spain	100.0	300	2000

Table I.14 (continued 3)

Firms sold	Country	Buyer	Country of origin	Percentage acquired	Amount	Date
Netstream	Brazil	American Telephone and Telegraph (AT&T)	United States	100.0	300	1999
Celumóvil S.A	Colombia	BellSouth Corporation	United States	33.8	295	2000
Telecomunicaciones Marinas S.A. (TEMASA)	Argentina	Lycos, Inc.	United States	100.0	280	1999
Nortel Inversora S.A.	Argentina	Telecom Italia Spa	Italy	17.5	265	1999
Nortel Inversora S.A.	Argentina	France Télécom (FTE)	France	17.5	265	1999
Telesp Celular S.A. (TCP)	Brazil	Portugal Telecom S.A.	Portugal	11.3	246	2000
Maxitel	Brazil	Telecom Italia Mobile (TIM)	Italy	38.0	240	2000
Tele Centro Oeste Celular Participações (TCO)	Brazil	BellSouth Corporation	United States	16.5	229	2000
Pegaso PCS	Mexico	Sprint Corporation	United States	...	200	2000
Centrais Telefónicas de Ribeirão Preto (CETERP)	Brazil	Telefónica do Brasil (ex TELESP S.A.)	Brazil	72.7	180	1999
BellSouth Perú (Tele 2000)	Peru	BellSouth Corporation	United States	15.6	167	1999
Telesp Celular S.A. (TCP)	Brazil	Portugal Telecom S.A.	Portugal	4.5	159	2000
Celumóvil S.A	Colombia	BellSouth Corporation	United States	16.6	153	2000
Consorcio Ecuatoriano de Telecomunicaciones (CONECEL)	Ecuador	Teléfonos de México (TELMEX)	Mexico	60.0	153	2000
Compañía de Teléfonos del Interior S.A. (CTI Móvil)	Argentina	Blackstone Capital Partners	United States	12.5	150	2000
Celumóvil S.A	Colombia	BellSouth Corporation	United States	15.6	142	2000
QuatroA Telemarketing e Centrais de Atendimento	Brazil	Atento Brasil	Brazil	100.0	140	2000
MCI Embratel (ex Empresa Brasileira de Telecomunicações)	Brazil	Société Européenne des Satellites S.A. (SES)	Belgium-Luxembourg	20.0	135	2000
Entel PCS	Chile	Empresa Nacional de Telecomunicaciones S.A. (ENTEL)	Chile	25.0	125	2000
Grupo Acir	Mexico	Grupo Televisa	Mexico	27.8	101	2000
BANKING AND FINANCIAL SERVICES					**12 191**	
Grupo Financiero Banco Bilbao Vizcaya Argentaria Bancomer (BBVA Bancomer)	Mexico	BBVA-Probursa	Mexico	32.2	1 850	2000
Grupo Financiero Serfin	Mexico	Banco Santander Central Hispano (BSCH)	Spain	100.0	1 560	2000
Conglomerado Financeiro Meridional	Brazil	Banco Santander Brasil (ex Geral de Comércio)	Brazil	97.0	1 000	2000
Banco Río de la Plata	Argentina	Banco Santander Central Hispano (BSCH)	Spain	28.2	975	2000

Table I.14 (continued 4)

Firms sold	Country	Buyer	Country of origin	Percentage acquired	Amount	Date
Banco Bandeirantes	Brazil	Unibanco (União de Bancos Brasileiros)	Brazil	90.0	670	2000
Banco Santiago	Chile	Banco Santander Central Hispano (BSCH)	Spain	21.8	600	1999
Seguros Monterrey	Mexico	New York Life Insurance	United States	...	570	2000
Seguros Comercial América (SCA)	Mexico	Internationale Nederlanden Group (ING)	Netherlands	28.0	555	2000
Banco de Chile	Chile	Holding Quiñenco S.A.(Luksic)	Chile	35.0	542	2000
AFJP Previnter	Argentina	AFJP Orígenes	Argentina	45.0	330	2000
Banca Promex	Mexico	Grupo Financiero Bancomer	Mexico	100.0	282	2000
Grupo Siembra	Argentina	Citibank	United States	50.0	280	2000
AFP Provida S.A.	Chile	Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	40.7	266	1999
Seguros Bital	Mexico	ING Baring	Netherlands	49.0	225	1999
Interbank Venezuela	Venezuela	Banco Mercantil Venezuela	Venezuela	97.0	218	2000
AFJP Consolidar	Argentina	Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	36.0	200	1999
Banco Caja de Ahorro S.A.	Argentina	Banca Commerciale Italiana	Italy	85.0	200	2000
Banco Caracas	Venezuela	Banco de Venezuela	Venezuela	66.0	200	2000
Afore Bital	Mexico	ING Bank	Netherlands	51.0	196	2000
Banco del Suquía	Argentina	Banco Bisel	Argentina	72.2	189	2000
Banco Wiese Sudameris Perú	Peru	Banco Sudameris	France	64.8	180	1999
Afore Garante	Mexico	Citibank	United States	51.0	179	2000
AFJP Previnter	Argentina	AFJP Orígenes	Argentina	10.0	165	2000
BRS Investment	Argentina	Merrill Lynch	United States	100.0	162	2000
AFP Unión	Peru	AFP Nueva Vida	Peru	100.0	135	1999
Asistencia Médica Social Argentina S.A. (AMSA)	Argentina	Aetna	United States	100.0	120	1999
Banco Sudamericano	Chile	Bank of Nova Scotia (Scotiabank)	Canada	33.0	116	1999
Banco Caracas	Venezuela	Banco de Venezuela	Venezuela	27.1	116	2000
Banco Patrimonio de Investimento	Brazil	Chase Manhattan Corp.	United States	100.0	110	1999
HOTELS AND RESTAURANTS					**668**	
Allegro Resorts	Dominican Republic	Occidental Hoteles	Spain	100.0	400	2000
Hoteles Camino Real-División Real Turismo	Mexico	Grupo Empresarial Ángeles	Mexico	100.0	152	2000
Hotel Marriott Puerto Vallarta	Mexico	Marriott International	United States	...	116	2000
INFORMATICS					**1 733**	
Globo.com	Brazil	Telecom Italia Spa	Italy	30.0	810	2000
Zip.Net	Brazil	PT Multimedia	Portugal	100.0	415	2000
Procomp Amazónia Indústria Eletrónica S.A.	Brazil	Diebold	United States	100.0	225	1999
Sonda	Chile	Telefónica CTC Chile (ex Compañía de Telecomunicaciones de Chile S.A. (CTC))	Chile	60.0	126	1999

Table I.14 (concluded)

Firms sold	Country	Buyer	Country of origin	Percentage acquired	Amount	Date
Sistemas Integrados de Control S.A. (SICSA)	Argentina	Banco Bisel	Argentina	100.0	157	2000
ELECTRIC POWER					**12 767**	
Empresa Nacional de Electricidad S.A. (ENDESA Chile)	Chile	Enersis S.A.	Chile	34.7	2 146	1999
Electricidad de Caracas (EDC o Elecar)	Venezuela	The AES Corp.	United States	81.3	1 658	2000
Enersis S.A.	Chile	Endesa España	Spain	32.0	1 450	1999
Eletricidade Metropolitana de São Paulo (Eletropaulo Metropolitana)	Brazil	The AES Corp.	United States	35.6	1 085	2000
Compañía Nacional de Transmisión Eléctrica S.A. (TRANSELEC S.A.)	Chile	HydroQuébec	Canada	100.0	1 076	2000
Gener S.A.	Chile	The AES Corp.	United States	61.5	842	2000
ES Centrais Elétricas (ESCELSA)	Brazil	Eletricidade de Portugal (EDP)	Portugal	38.3	535	1999
Chilquinta Energía S.A. (Enerquinta)	Chile	Sempra Energy	United States	45.2	415	1999
Chilquinta Energía S.A. (Enerquinta)	Chile	Public Services Enterprise Group (PSEG)	United States	45.2	415	1999
EMDERSA	Argentina	GPU, Inc.	United States	88.0	381	1999
Light Serviços de Eletricidade	Brazil	Électricité de France (EDF)	France	20.2	337	2000
Light Serviços de Eletricidade	Brazil	Électricité de France (EDF)	France	9.2	291	2000
Companhia Energética do Maranhão (CEMAR)	Brazil	Pensylvannia Power and Light (PP&L - PPL)	United States	84.7	290	2000
Bajio Power Project	Mexico	AEP Resources	United States	50.0	215	2000
Hidroeléctrica Alicura S.A.	Argentina	Grupo AES Argentina	Argentina	59.0	205	2000
Empresa Eléctrica EMEC S.A. (ex Empresa Eléctrica de Coquimbo S.A.)	Chile	Compañía General de Electricidad (CGE)	Chile	75.8	203	1999
Companhia Força e Luz Cataguazes-Leopoldina (CFLCL)	Brazil	Alliant Energy Resources	United States	49.2	200	2000
Companhia de Eletricidade do Rio de Janeiro (CERJ)	Brazil	Endesa España	Spain	25.0	172	2000
Grupo Lipigas	Chile	Repsol-YPF	Spain	45.0	171	2000
Electricidad de Caracas (EDC o Elecar)	Venezuela	Brown Brother Harriman & Co.	United States	13.0	158	1999
Energisa S.A.	Brazil	Alliant Energy Resources	United States	45.6	148	2000
Compañía General de Electricidad (CGE)	Chile	Grupo Marín	Chile	7.8	139	2000
Corporación Eléctrica de la Costa- Atlántica (CORELCA)- Electrocosta y Electrocaribe	Colombia	Unión Fenosa	Spain	32.5	135	2000
Empresa de Energía del Pacífico S.A. (EPSA)	Colombia	Unión Fenosa	Spain	28.2	100	2000
4. TOTAL					**87 518**	

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information published in the specialized press in Latin America.

Brazil, Colombia and Peru, and other transnationals of the sector. In the financial sector, the largest acquisitions were conducted by Spanish banks, in particular BSCH: in the biennium 1999-2000 this bank purchased a stake in Banco del Río de la Plata of Argentina for US$ 975 million, acquired Conglomerado Meridional in Brazil for US$ 1 billion and the Serfín Group in Mexico for US$ 1.56 billion (see box I.1), and purchased a 22% share of Banco de Santiago in Chile at a cost of US$ 600 million. BBVA merged its Mexican operations with the Bancomer Group, at a cost of US$ 1.85 billion (see box I.1), and acquired major stakes in the pensions industry in Argentina and Chile. Two other service industries that experienced a relative increase in mergers and acquisitions in the last two years and whose operations have become increasingly inter-related were the media and the Internet industries, including the areas of connection, content and electronic commerce.

If the sample in table I.14 were extended to all private mergers and acquisitions (not only those costing over US$ 100 million), it would include the 494 merger and acquisition operations in Latin America and the Caribbean (shown in the ECLAC database for the period 1999-2000), which involve resources amounting to over US$ 93 billion[14] (see table I.15). In keeping with global patterns, only 31 of these recent operations equivalent to 6% of the total took place in the primary sector. This percentage varies significantly, however, when the resources directed at these operations are considered to the massive impact of the YPF acquisition by Repsol in 1999. Mergers and acquisitions in the primary sector in the period 1999-2000 thus involved resources of US$ 16.749 billion, or 18% of the regional total. If the YPF purchase is subtracted from the total, however, the resources involved in mergers and acquisitions in this sector would have been barely more than 2% of the regional total, indicating a primary sector share in mergers and acquisitions in the region similar to that seen in the rest of the world.[15] Some difference does persist though, and is attributable to mining operations in the Southern Cone. During the period 1999-2000, 14 operations of this type took place for a total of US$ 1.273 billion, and involving Australian, British, Canadian and United States firms in Argentina, Brazil, Chile and Peru. The competitive rationale of these acquisitions was of a traditional sort, as large transnational companies sought to use their technological, administrative and financial advantages to maximize rents from the abundant mining resources in some of the region's countries.

The role of the Latin American manufacturing sector in the merger and acquisition process in 1999-2000 was in total contrast to that of the primary sector. Although the 116 transactions recorded in this sector during the biennium represent almost a fourth of total operations, the resources involved (US$ 7.508 billion) represent only 8% of the total amount spent. This was partly a reflection of the fact that recent merger and acquisition operations in the Latin American manufacturing sector focussed on activities that were technologically simple and not capital-intensive. As in the rest of the world, the services sector in Latin America was the most active in terms of mergers and acquisitions in recent years. The period 1999-2000 recorded 347 merger and acquisition operations in this sector for a total of US$ 67.156 billion. As a matter of fact, more than 70% of the operations conducted and the resources invested in mergers and acquisitions in the region were concentrated in the services sector. Although this sector has been in the vanguard of the recent increase in mergers and acquisitions at the global level, its share in Latin America has been disproportionately high in comparison with other regions. This would indicate that the mergers and acquisitions process of recent years has features which are unique to Latin America and the Caribbean, in both services and manufacturing.

At least two comparative features of the services sector help to explain why the sectoral distribution of mergers and acquisitions in Latin America has differed from that of other regions in recent years. One is the process of reform and greater openness to foreign investment in Latin America's main service industries in comparison to other developing regions, and the other is the process of restructuring that has come in the wake of the privatizations in the region. With regard to the former, Latin America's privatizations and the fact that foreign capital has easier access to the continent's service industries than to those of developing countries in Asia, have been instrumental in determining the sectoral differences of the phenomenon between the two regions.

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14 This database includes information on both transborder mergers and acquisitions, and mergers and acquisitions between firms in the same country. The data examined below are therefore not strictly comparable with the UNCTAD information on global transborder mergers and acquisitions quoted in the previous section. Given that a very large proportion of the resources directed at mergers and acquisitions in Latin America and the Caribbean in recent years has involved transborder operations, however, the data used in this section still provide a useful picture of the phenomenon.

15 It should be noted that UNCTAD classifies operations involving oil companies in the petroleum processing and refining industry, i.e., in the manufacturing sector. ECLAC, however, includes these operations (for example, the acquisitions of YPF by Repsol) in the primary sector.

In the electricity sector, for example, three quarters of private investment in Latin America between 1990 and 1997 was directed at acquiring existing companies, while in developing Asia over 95% of investment in the electricity sector over the same period was directed at financing greenfield projects (Izaguirre, 1998). The second feature which distinguishes the service industries of Latin America from those of other regions is the process of restructuring which followed the privatizations of the 1990s. Carry-over factors which are particular to the region are therefore added to the effects of global industrial phenomena, and a major part of mergers and acquisitions by private firms in the region's services sector is attributable to the restructuring and consolidation of the regional ownership structure after the rapid and occasionally haphazard privatizations of the last decade.

The region's manufacturing sector also has special characteristics again partly a legacy of the 1990s reforms that help to explain its limited involvement in the process of mergers and acquisitions. As a matter of fact, although there are differences between countries, most of the regional manufacturing industry was unable to become internationally competitive in the context of the trade liberalization of the 1990s, and is still hard put to compete in either domestic or external markets. Added to the fact that the region's manufacturing firms lack strategic assets in growing manufacturing industries, this situation has made them an unattractive prospect for potential transnational buyers, in comparison with firms in other developing and developed regions (see chapter III, which examines the reasons for the low profile of Japanese investment in the region). In addition, those manufacturing units in Latin America that were able to improve or retain their competitiveness in the 1990s (mainly in Mexico and the Caribbean Basin or in protected subregional or domestic markets, for example, within Mercosur) are in great part already owned by large transnational companies which are often integrated into international and regional production networks. These production units are therefore less likely to see ownership changes conducted directly in the region, even though they may be indirectly affected by the process of mergers and acquisitions in progress at the global level, through operations involving their parent companies.

An analysis of participation in mergers and acquisitions at the industry level also reveals some interesting intrasectoral patterns in Latin America and the Caribbean in the biennium 1999-2000 (see table I.15). Mergers and acquisitions in the region's manufacturing sector were highly concentrated in relatively light and technologically simple local-market-oriented industries that use local inputs largely to meet the needs of domestic markets, such as food and beverages and the paper industry. In the period 1999-2000 manufacturing mergers and acquisitions were heavily concentrated in the foodstuffs and beverage industries, which recorded 39 operations in the biennium for a total of US$ 3.387 billion; this accounted for 45% of the resources directed at mergers and acquisitions in the manufacturing sector as a whole (see box I.4). In terms of the amount involved, other industries followed at a considerable distance, such as the machinery and non-classified equipment industry where mergers and acquisitions totalled US$ 669 million; non-metallic mineral products, at US$ 644 million; and the chemical and pharmaceutical industry, with US$ 602 million.

It is interesting to compare the intrasectoral distribution of mergers and acquisitions in Latin American manufacturing to the sectoral patterns at the global level. In contrast to Latin America, and in response to the new patterns of global competitiveness, the manufacturing industries that saw most mergers and acquisitions worldwide during the biennium 1998-1999 were those involved in activities such as pharmaceuticals, electronics and manufacture of motor vehicles, which together accounted for almost half of the resources directed at mergers and acquisitions in world manufacturing during the period (UNCTAD, 2000). Competitiveness in these industries is mainly defined by the level of technology that is incorporated into the production processes, the ability to innovate continually in technology, products and design, and the potential to integrate the processes into international production networks. Mergers and acquisitions in these activities therefore result from the pursuit of strategic assets to complement existing units of production. The comparatively low profile of the manufacturing sector in general, and of these industries in particular, in Latin American mergers and acquisitions confirms that production units with these features are relatively scarce in the region and raises doubts about Latin America's future competitiveness in the new global industrial context.

The intrasectoral distribution of mergers and acquisitions in the Latin American services sector has much more in common with global restructuring patterns than does that of the region's manufacturing sector. The three industries that recorded a very large proportion of all mergers and acquisitions in the Latin American services sector in the biennium 1999-2000 telecommunications, electric power and financial intermediation also accounted for 72% of resources

Table I.15
MERGERS AND ACQUISITIONS OF PRIVATE COMPANIES IN LATIN AMERICA AND THE CARIBBEAN, BY SECTOR AND INDUSTRY, 1999-2000
(Number, millions of dollars and percentages)

	Number of operations	Total amount	Percentage of the total
PRIMARY SECTOR	**31**	**16 749**	**18.3**
Mining and quarrying	3	42	0.0
Coal and lignite	3	368	0.4
Crude petroleum and natural gas	11	15 050	16.5
Ores	14	1 273	1.4
MANUFACTURING SECTOR	**116**	**7 508**	**8.2**
Foodstuffs and beverages	39	3 387	3.7
Tobacco products	1	500	0.5
Textiles and clothing	4	41	0.0
Paper and paper products	10	504	0.6
Publishing and printing	9	172	0.2
Coke and refined petroleum	2	83	0.1
Chemical products	14	602	0.7
Rubber and plastic products	2	220	0.2
Non-metallic mineral products	8	644	0.7
Metals and metal products	5	418	0.5
Machinery and non-classified equipment	15	669	0.7
Motor vehicles and trailers	5	125	0.1
Other types of transport equipment	2	143	0.2
SERVICES SECTOR	**347**	**67 156**	**73.5**
Electricity, gas, steam and hot water	58	13 520	14.8
Water catchment and distribution	5	725	0.8
Construction	8	332	0.4
Commerce	32	4 247	4.6
Hotels and restaurants	7	695	0.8
Transport	12	90	0.1
Mail and telecommunications	64	29 664	32.5
Financial intermediation	43	9 464	10.4
Insurance and pensions	21	3 131	3.4
Informatics and related activities	65	2 026	2.2
Other business activities	5	157	0.2
Leisure and sport	22	3 037	3.3
Other service activities	5	68	0.1
TOTAL	**494**	**93 568**	**100.0**

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management.

directed at transborder merger and acquisition operations in the tertiary sector at the world level in the period 1998-1999 (UNCTAD, 2000). This would seem to indicate that in this sector at least Latin America and the Caribbean is undergoing a restructuring process similar to that occurring in the rest of the world in recent years. At the regional level, this process has resulted in these industries' being consolidated in the hands of a few large transnational players with a regional presence (an example from the banking sector is described in box I.1, and an instance from the electricity sector in box I.2). Insofar as this process entails improvements through technological progress or economies of scale to the services base that the regional industries require, these investments may presage well for regional development. The concentration of these industries in the hands of a few very powerful players, however, also challenges the region's regulators to develop policies to ensure that

some of the gains resulting from such improvements are actually passed on to users.

Independently of any improvements that might be achieved in the services sector, the pattern of industrial restructuring generated by mergers and acquisitions in Latin America raises questions as to how the process will affect the region's competitive position. Although an efficient platform of services is undoubtedly important, a country's competitiveness in the new global economic scheme is strongly determined by the development of its manufacturing sector and, within this sector, by the competitiveness of the fastest-growing and most technologically advanced industries (Lall, 2000). In comparison with other regions, these industries in Latin America show no sign of significant restructuring through mergers and acquisitions. Latin America's potential for playing a dynamic role in the new global structure hinges on generating production capacities and comparative advantages in manufacturing industries that offer high profitability and growth, and whose competitiveness develops in pace with technological change; such industries have accounted for a very significant share of mergers and acquisitions in the developed world in recent years. Moreover, history would suggest that the development of industrial capacity in these areas does not happen spontaneously. The region would therefore require policies that make it possible to respond to this challenge by various means, one of which would be to encourage the consolidation in the region of transnational firms having the technology, financial capacity and strategic assets needed to compete in these growing industries. The following section will examine the case of a country that is attempting to attract this type of firm through FDI policy, with a view to improving the competitive position of its economy in the new world economic order.

C. A NEW NATIONAL STRATEGY ON FOREIGN DIRECT INVESTMENT

As in the 1999 Report (ECLAC, 2000a), this section looks at the cases of some countries in the region that have attempted to give a new focus to their foreign investment policies, seeking to bring them in line with their broader development targets. Unlike the approach which was very common in the region in recent years of attempting to attract the largest volume of FDI possible through opening up of markets, liberalization, deregulation of the domestic economy and privatization of State assets, strategies of this type begin by taking stock of the country's existing and potential competitive advantages and then define and adopt modalities of channelling foreign investment accordingly, through active, specific and consistent policy tools. The last Report studied the cases of Costa Rica and its policy of focusing on advanced technology and international competitiveness, and of Bolivia with its active policy of creating an energy export complex. In this edition, a brief analysis is made of the new FDI policy of the Dominican Republic.

1. New policies in the Dominican Republic: a focus on advanced technology and improvement of system competitiveness

The position of the Dominican Republic in the world economy has historically been based almost exclusively on a small group of agricultural goods, such as sugar, coffee, cacao and tobacco, and some minerals, such as nickel. This relationship with the international economy was insufficient to enable the Dominican Republic to establish a solid pattern of economic development and left the country's performance vulnerable to the cycle of international prices in these exports, generating significant external disequilibria and periodic balance-of-payment problems. The instability inherent in this structure persisted at least until the early 1980s, when the country's external debt crisis prompted the Administration to take a new approach to international trade, based on the benefits offered by the United States Government for

export-processing zones under the Caribbean Basin Initiative, through the joint production mechanism (first TSUS 807, later HTSUS 9802) which gave preferential access to the United States market (Mortimore, Duthoo and Guerrero, 1995).

Table I.16 illustrates how successful this new policy has been in terms of the Dominican Republic's share of North American imports (Canada and the United States) between 1985 and 1998. In general, as the table shows, during this period the country considerably increased its

Table I.16
DOMINICAN REPUBLIC: INTERNATIONAL COMPETITIVENESS IN NORTH AMERICAN IMPORTS
(Canada and United States)

			1985	1990	1995	1998
I. Market share			**0.25**	**0.31**	**0.38**	**0.41**
Natural resources (1)			0.40	0.25	0.20	0.21
Manufactures based on natural resources (2)			0.38	0.25	0.26	0.35
Manufactures not based on natural resources(3)			0.15	0.32	0.43	0.45
- Low technology (4)			0.52	1.02	1.46	1.49
- Mid-level technology (5)			0.04	0.11	0.15	0.16
- High technology (6)			0.02	0.03	0.05	0.05
Other (7)			0.77	0.47	0.33	0.28
II. Export structure (contribution)			**100.0**	**100.0**	**100.0**	**100.0**
Natural resources (1)			23.7	10.6	5.6	5.0
Manufactures based on natural resources(2)			24.0	11.6	8.9	11.1
Manufactures not based on natural resources (3)			39.6	71.4	81.9	80.7
- Low technology (4)			33.1	56.8	65.9	64.9
- Mid-level technology (5)			5.1	12.8	13.5	13.3
- High technology (6)			1.2	1.7	2.57	2.4
Other (7)			12.9	6.4	3.68	3.2
III. 10 main exports by contribution (ISIC Rev.2)	[a]	[b]	**45.8**	**64.2**	**72.3**	**76.5**
842 Men's and boy's outer garments, knitted or crocheted	*	+	5.4	13.5	16.5	17.4
846 Undergarments, knitted or crocheted	*	+	5.6	8.2	12.6	13.8
843 Women's, girl's and infant's outer garments, knitted or crocheted	*	+	5.8	10.2	10.6	10.1
872 Medical instruments and appliances	*	+	…	4.3	7.0	6.8
845 Outer garments and accessories, knitted or crocheted	*	+	0.9	4.7	5.7	6.5
122 Tobacco manufactures		+	1.8	1.3	1.9	5.1
772 Electrical apparatus for making and breaking or for protecting electrical circuits	*	+	1.3	3.9	4.2	5.1
612 Manufactures of leather or of artificial or reconstituted leather		+	3.4	6.4	6.1	4.9
061 Sugar and honey		-	17.8	7.2	4.2	3.8
897 Jewellery and goldsmiths' or silversmiths' wares		+	3.7	4.8	3.5	3.1

Source: ECLAC, on the basis of the CAN computer program.

Groups of goods based on the Standard International Trade Classification (SITC Rev.2)

(1) Contains 45 simply processed commodities, including concentrates.

(2) Contains 65 items: 35 agricultural/forestry groups and another 30 (mostly metals ¾except steel¾, petroleum products, cement, glass, etc.).

(3) Contains 120 groups which represent the sum of (4) + (5) + (6).

(4) Contains 44 items: 20 groups of the textile-wearing apparel cluster, plus another 24 (paper products, glass and steel, jewels).

(5)Contains 58 items: 5 groups from the motor vehicle industry, 22 from the processing industry and 31 from the engineering industry.

(6) Contains 18 items: 11 groups from the electronics cluster plus another 7 (pharmaceutical products, turbines, aeroplanes, instruments).

(7) Contains 9 unclassified groups (mostly from section 9).

[a] Groups that correspond (*) to the 50 fastest-growing among North American imports, 1985-1998.

[b] Groups in which the Dominican Republic gained (+) or lost (-) market share in North American imports, 1985-1998.

share of that market, from 0.25% to 0.41%. This increase, however, was not uniformly distributed across all products: while the share of non-resource-based Dominican manufactures in the North American market grew from 0.15% to 0.45% (and within this group the share of manufactures with low technological content grew from 0.52% to 1.49%), the share of Dominican commodities in the North American market fell from 0.40% to 0.21%. Not only did Dominican exports to the United States increase, therefore, but their structure also underwent a drastic change: together, commodities and resource-based manufactures fell from over half the total in 1980 to less than 15% of the value of total exports in 1998, and exports of non-resource-based manufactures doubled their share, to reach over 80% of the total in 1998. To be more precise, over two thirds of exports in the latter group corresponded to low-technology manufactures mostly apparel so that in the period 1985-1998 four of the six Dominican exports which were dynamic in North America were clothing. The policy implemented at the beginning of the 1980s thus enabled the Dominican Republic to improve its position on the international market, based on assembly of wearing apparel for export to the North American market through preferential access mechanisms.

The successful restructuring of external trade by the Dominican Republic was based on the combined effect of three elements: specific policies aimed at foreign investment in the country (especially incentives in export-processing zones), preferential access provided by the United States Government, and the strategies of North American firms seeking efficiency in the export-processing zones. This particular combination made the Dominican Republic the main supplier of wearing apparel from the Caribbean Basin to the United States. Despite successfully positioning the country on the international market, however, this process proved to have some limitations in terms of the development expectations of the Dominican Republic. In particular, the United States Government requirement for preferential access to be subject to the use of United States inputs (fabrics, thread, buttons, etc.) meant that assembly operations in export-processing zones never grew domestic roots or generated local suppliers to any significant degree. Rather than any real gain in the intrinsic competitiveness of the Dominican economy, therefore, the increased share of the North American market won by Dominican wearing apparel was a reflection of improved competitiveness of North American subsidiaries and their subcontractors using the preferential access mechanisms (Vicens, Martínez and Mortimore, 1998).

In fact, during the 1990s the Dominican Republic's market share was already beginning to wane in the face of new competition from other countries in the Caribbean Basin (El Salvador, Honduras, Guatemala) and the effect of the advantages obtained by Mexico through the North American Free Trade Agreement (NAFTA) (see ECLAC, 2000a, chapter IV). The partial reversion of this situation in 2000 serves to further demonstrate the strong dependence of this type of activity on preferential access to the United States market. The announcement of the Caribbean Basin Trade Partnership Act, which was signed in October 2000 and extends the tariffs which Mexico has enjoyed since 1994 to the beneficiary countries of the Caribbean Basin Initiative, has encouraged some firms that had emigrated to return to the Dominican Republic, and an increase in employment in these activities is expected in the next few years (Latin Finance, December 2000). Mexico still has a major advantage that these countries did not receive, however, i.e., the impact of the NAFTA rules of origin on the domestic production chain (see ECLAC, 2000a, chapter IV). The Dominican authorities realize that because of their high mobility and low domestic impact, these activities cannot guarantee long-term development.

In response to this situation, the Dominican authorities have begun to refocus their development strategies and foreign investment policies in recent years. At a workshop on FDI in the Caribbean Basin run by the Organisation for Economic Co-operation and Development (OECD) in April 2000, the Director of the country's National Planning Office summarized the analytical basis of this new effort with the observation that while governments seek to encourage national development, transnational corporations seek to strengthen their own international competitiveness, and the two objectives may be only weakly linked… [therefore] clearly identifying the objective is an indispensable step to reaping worthwhile fruits from foreign investment (Camilo, 2000). According to the Dominican Secretary of State for Trade and Industry, the country's policy must be directed at gaining a successful position in the world economy in terms of increasing competitive advantages (Bonetti, 2000). In line with this overall objective, at least three complementary fields of action have been defined: (1) development of a new focus for the export-processing zones in order to encourage the establishment of higher-technology industries, (2) major efforts to improve the economy's system competitiveness competitiveness, and (3) promotion of greater participation of domestic firms in new foreign investment projects in the tourism sector.

The first field of action is still very new, and it is difficult to discern concrete results. It is already clear,

however, that the Government is making an effort to encourage industry that is intensive in advanced technology, in order to diversify the country's production structure and its export basket while encouraging research and the specialization of existing human resources (OPI-RD, 2000a). Accordingly, the Administration has already identified and established contact with large transnational corporations that pursue efficiency in activities with greater value added and a higher level of technological sophistication, and expects to conclude investment agreements with Hewlett Packard, Paragon Solutions, Apogee Networks and Terra Networks, among other firms in the sector (Latin Finance, December 2000). One specific result of the Government's drive is the construction of the Parque Cibernético de Santo Domingo, a US$ 200 million project directed at the official objective of making the Dominican Republic the top technology country in the region, preparing to enter fully into the "New Digital Economy" (OPI-RD, 2000b). The first phase of the Park includes construction of the Technological Institute of the Americas, which will offer advanced courses in the areas of engineering, electronics, robotics, information and telecommunications technology. According to the Dominican Government, the Institute has already secured financial backing from companies such as Microsoft, Cisco Systems and Siemens (Latin Finance, December 2000). The park's business centre is designed to host industrial and service activities such as industrial hardware and software operations, electronic assembly, calling centres, electronic commerce and robotics. Toward the end of 2000 a quarter of the Park's projected capacity was already occupied.

With respect to improving the economy's system competitiveness competitiveness, the changes have been directed at generating two types of benefits: (i) improving the domestic market infrastructure and supply of services; and (ii) providing better support for export activities in the export-processing zones, by overcoming the shortcomings that have been identified, for example, in the supply of electric power. Efforts in this direction were ongoing throughout the 1990s and included numerous reforms in areas such as labour (1992), tax (1992) tariffs (1993) and public-sector enterprises (1997). Some items remaining on the agenda are reform of the social security system, the introduction on legislation on competition, the adoption of overall legislation to regulate the energy sector, a new tariff reform act, a monetary and financial code and intellectual property legislation (Camilo, 2000). Significant changes have also come about in terms of reform of the judicial system, increased customs transparency and improved administration of the taxation system, among others (Pellerano and Herrera, 2000).

Despite the significance of these transformations in the institutional and legal framework, the most tangible recent changes from a system competitiveness perspective probably have to do with the process of capitalization and privatization of key public-sector firms. In fact, in response to evident shortcomings in the performance of some public-sector enterprises which provide services that are essential for the competitiveness of the economy, the authorities embarked on a programme to capitalize these firms and transfer their management to the private sector. This move to improve efficiency attracted transnational service companies which sought access to the domestic market, thus by means of a tendering process, five transnational corporations acquired stakes in the State-owned electric power utility, Corporación Dominicana de Electricidad (CDE). As a result, FDI directed at increasing and modernizing electricity generation and distribution amounted to US$ 644 million (see box I.5), and new projects in the energy sector are estimated to bring inflows of US$ 1.55 billion from now until the end of 2003. It will take time to fully resolve the major difficulties that have beleaguered the Dominican electricity system for decades, and there are still some doubts as to how the process will work out (Latin Finance, December 2000). Nevertheless, services to users and the reliability of the system are certain to benefit from the increased generation capacity, together with the rationalization and the technical improvements resulting from these new investments. Moreover, the process has already brought clear benefits to the fiscal accounts by eliminating subsidies to the sector.

Foreign investment has also generated substantial progress in other areas of public infrastructure. A new scheme of airport concessions to domestic and foreign operators which brought in US$ 309 million had a positive effect on the economy's system competitiveness competitiveness (Núñez, 2000). A planned investment of US$ 200 million by local and foreign investors to build the new Port of Caucedo on the outskirts of Santo Domingo will boost the development of the country's export process. Efforts to conclude joint investment agreements between transnational and domestic firms in the tourism sector have also met with some success, particularly with respect to new investments by Spanish and German firms, which currently account for over 10% of total investments in this sector.

In view of the policies recently implemented by the Dominican Government, it is no surprise that FDI income should have grown markedly during the 1990s, both in absolute terms and in relation to the size of the

Box I.5

CONVERGENCE BETWEEN DEVELOPMENT POLICY TARGETS AND THE STRATEGIES OF TRANSNATIONAL FIRMS: DOMINICAN REPUBLIC AND UNIÓN FENOSA

In the mid-1990s, the Government of the Dominican Republic was aware that the lack of a reliable source of electric power was jeopardizing the country's development aspirations, especially in terms of the economy's system competitiveness competitiveness. In fact, according to a survey conducted by the ECLAC Unit on Investment and Corporate Strategies, 30 of the 60 largest firms (by sales) that were operating in the export-processing zones identified the "unreliable national energy supply" as their second main operational problem, after "cumbersome customs procedures" (Mortimore, Duthoo and Guerrero, 1995). Three years later, another survey conducted on 16 domestic and foreign firms in the clothing industry defined the "high cost of energy in the country" as the main obstacle to export activity (Vicens, Martínez and Mortimore, 1998). The situation was so awkward that many firms had to invest in their own generating equipment in order to keep their operations running. Seeking to remedy this and other problems, the Government embarked on a programme to capitalize the State-owned utilities. The objective was to make them more efficient and transfer their administration to private-sector firms of proven efficiency. In the case of Corporación Dominicana de Electricidad (CDE), this was achieved through a tender process to enlarge the electrical system by 200 MW in which five foreign companies were involved. FDI inflow from this process amounted to more than US$ 644 million by 1999 and generated commitments worth US$ 1.55 billion for the period 2000-2003 (Núñez, 2000). Unión Fenosa is a Spanish electricity company that has been expanding steadily since 1987, and currently has operations in 36 countries on four continents (Europe, the Americas, Asia and Africa). In Latin America the company has operations in Panama, Guatemala, Mexico and the Dominican Republic. Despite this extensive network, Unión Fenosa is much smaller in terms of sales, assets and capitalization than other Spanish electricity companies such as Endesa España and Iberdrola (ECLAC, 2000a, chapter II). Unlike these, Unión Fenosa has pursued a policy of alliances with local firms to expand its market presence in developing countries. Consistently with this strategy, Unión Fenosa joined forces with CDE in the Dominican Republic, entering the country in August 1999. At present the company has electricity distribution operations through two firms, Edenorte and Edesur, involving a capital input of US$ 212 million, and two electric power generators (190 MW), Palomara and La Vega, which represent a capital contribution of US$ 120 million. Unión Fenosa was attracted to the Dominican Republic by a combination of factors, including the aversion to risk displayed by some of its competitors, the possibility of entering the market with smaller investments through the capitalization programme, and the perception that the Government was serious in seeking a solution to a substantial problem. The results are evident: Unión Fenosa has drastically reduced energy losses, significantly cut the utility's unrecoverable commercial credits and attracted new clients. Some companies have even abandoned their in-house generating systems as a result of the improvements in the national supply. All this has resulted in a rapid upturn in the company's medium-term net worth and brought the Government closer to its targets in terms of the country's system competitiveness competitiveness, in a striking example of convergence between development policy targets and the strategy of an expanding transnational company.

Source: ECLAC, on the basis of presentations by Miguel Olivera, Director of Unión Fenosa, and Fernando Matamoros, General Manager of Edenorte, at the workshop on Foreign Direct Investment in the Caribbean Basin, organized by the Organisation for Economic Cooperation and Development (OECD) and the Dominican Republic Foreign Investment Promotion Office (OPI-RD), Santo Domingo, 11 and 12 April 2000.

economy. In fact, annual FDI inflows increased ten-fold, from US$ 133 million in 1990 to US$ 1.338 billion in 1999, and in terms of GDP, from 4.4% of GDP in 1993 to 7.8% in 1998 (Núñez, 2000). At the same time, the Dominican economy increased its average annual growth from 4.2% in the period 1991-1994 to 7.8% in 1995-1999. The influence of FDI in this result is apparent from observation of the sectors in which this type of investment is concentrated (export-processing zones, commerce, tourism and communications), all of which grew at a faster rate than the rest of the economy. By 1999, the export-processing zones were already generating about US$ 4 billion in exports, mostly on the basis of accumulated FDI, while the capitalization of the electricity company CDE attracted almost half (47%) of FDI inflows that year, with telecommunications and tourism accounting for a substantial part of the balance (16% and 22%, respectively). In addition, investment projections for those sectors during the period 2000-2003 are already in the order of US$ 1.403 billion (Núñez, 2000). The Dominican authorities therefore appear to have struck a reasonably good balance between domestic policy targets and the interests of foreign direct investors, successfully attracting investment in activities that have been defined as priority areas within national development policy. The years to come will tell what the impact of these achievements on the country's development potential will be.

II. CHILE: FOREIGN DIRECT INVESTMENT AND CORPORATE STRATEGIES

Previous publications (ECLAC, 1998; ECLAC, 2000a) have examined Brazil and Mexico, which are two of the region's largest economies and the main recipients of FDI in Latin America and the Caribbean. The analysis in this edition will focus on one of the emerging economies, which has been most successful in attracting FDI. Compared to other countries of the region, Chile came to the attention of foreign investors early on, at a time when the economies of the subcontinent were beset by severe economic difficulties. Chile has received massive FDI inflows over the last 20 years, thanks to its enormous comparative advantages in diverse activities linked to the extraction and processing of natural resources. These comparative advantages were heightened by the deep and wide-ranging economic reforms of the 1970s, which were then consolidated with the return to democracy at the beginning of the 1990s. More recently, in addition to these voluminous investments in natural-resource-related activities, foreign firms have been streaming into the services sector. This new wave of FDI differs from the earlier trend in that it has been focused on the purchase of existing assets in activities that were previously dominated by private local groups, especially in the electricity sector.

This chapter will examine the main features of FDI inflows to the Chilean economy, as well as the building blocks of the strategies used by the transnational firms that have established a presence in the country. The analysis will consider two distinct groups of foreign investors in Chile: those who are seeking out natural resources, and those who are endeavouring to gain a stake in the domestic or regional services markets.

A. FOREIGN CAPITAL IN THE CHILEAN ECONOMY

1. A century marked by the mining investments of North American firms

Foreign firms have been present in the Chilean economy since the early twentieth century. In the 1930s and 1940s, most foreign investment originated in the United States and, to a lesser extent, the United Kingdom. United States companies concentrated on mining and the British firms on services such as railways, electricity and telephones (Banco Central de Chile, 1956). Later, changes in FDI regulations during the Administration of President Carlos Ibáñez del Campo (1954-1958) resulted in a significant increase in manufacturing investments, although mining continued to be the main attraction for foreign firms.

The 1960s saw major increases in FDI inflows. Between 1959 and 1970, capital inflows were concentrated in the mining sector (58.8%), manufacturing (38.8%) —mainly the manufacture of paper and petroleum-based chemicals— and to a much smaller extent in services (1.5%). During this period, United States and Canadian firms accounted for the bulk of foreign inflows, generating 43.3% and 26.2% of the total, respectively (CORFO, 1972; ODEPLAN, 1972).

In the late 1960s Chile's economic landscape was substantially altered by a series of reforms, particularly the nationalization of large-scale copper mining and agrarian reform. The pace of these reforms increased with the election to office of the Popular Unity party, headed by the socialist president Salvador Allende. At this time, the State became more deeply involved in the economy, and the scope of action for private agents narrowed. In the wake of these developments, within a relatively short period of time the country lapsed into a severe political and economic crisis and, as conditions for foreign capital were found to be discouraging, a steep fall in FDI inflows ensued.

In late 1973, a military coup overthrew Salvador Allende. The new authorities made sweeping changes in economic policy with the introduction of a neoliberal model involving a drastic decrease in public-sector activity in the economy and radical changes in fiscal affairs, labour policy and finance, economic relations with other countries (financial and import liberalization and export promotion) and the ownership of the means of production (Ffrench-Davis, 1999; Foxley, 1980). With these measures, the new government sought to turn the market into the main agent of resource allocation, private enterprise into the driving force of the economy and comparative advantage-based exports into the foundation for the country's economic development.

With regard to FDI, the military government tried to generate confidence among private investors and thus dispel the poor international perception of the Chilean economy. In 1974 the government enacted the Foreign Investment Statute (Decree Law 600, known as DL 600), which regulates the conditions of market entry, capitalization and remittances of foreign capital. These provisions remain largely unchanged today. This new legal framework guaranteed access to all production activities, tax stability and non-discriminatory treatment vis-à-vis local enterprise. The Chilean authorities used this legal instrument to raise the profile of foreign investment, and it soon became one of the main sources of financing for a renewed development strategy based

on an extensive opening of the economy. It was hoped that FDI would thus help to strengthen and broaden the Chilean export sector. The desired results did not materialize quickly, however. In the period 1975-1980, the Chilean economy recorded annual FDI inflows of around US$ 188 million, and these funds were heavily concentrated in the mining sector.

In the early 1980s, the country suffered one of its greatest economic crises ever. A strong external shock generated by an abrupt break in foreign financing, rising international interest rates and a deterioration in the terms of trade, exacerbated by heavy domestic borrowing and a dogmatic economic policy, caused GDP to plunge by 14% in 1982. In response, the authorities adopted a more pragmatic economic —and particularly foreign-exchange— policy. An attempt was made to stimulate private investment by creating a debt conversion mechanism (described in chapters XVIII and XIX of the Chilean Central Bank's Compendium of Rules on International Exchange).

Between 1985 and 1990, the period when Chapter XIX was in force, this mechanism generated close to 80% of total FDI flows into the country (see table II.1). The mechanism was widely welcomed because the investors who used it enjoyed an implicit subsidy in the form of discounts amounting to an estimated 46% of the value of their investments, which was not available to investors under DL 600 (Ffrench-Davis, 1990). The debt-conversion programme was promoted extensively abroad, and this helped to create a favourable climate for foreign investors and encourage them to consider Chile as an investment prospect (see figure II.1). The rapid and sustained upturn in the economy, however, had the effect of pushing up the prices of Chilean external debt paper and consequently making this mechanism less profitable (Calderón and Griffith-Jones, 1995). In 1992, therefore, operations of this sort ceased.

Chapter XIX made it possible to finance major projects in the flourishing resource-based manufacturing industry, particularly the forestry sector, which accounted for almost 30% of inflows into the country under this mechanism. These investments —like those made in agricultural activities (mainly fresh fruit) and fisheries— boosted Chilean exports of these products. Services activities also received a large share of the resources that flowed into the country under Chapter XIX, particularly telecommunications, electrical energy, banking, pension fund administrators and tourism.

At the same time, the second half of the 1980s saw an upturn in FDI inflows channelled through the traditional mechanism of DL 600, most of which went to new mining projects (see figure II.1). Between 1985 and 1990, this sector accounted for 54% of DL 600 inflows. Over this period the majority of investments originated in North America (United States and Canada), which accounted for 42% of the total.

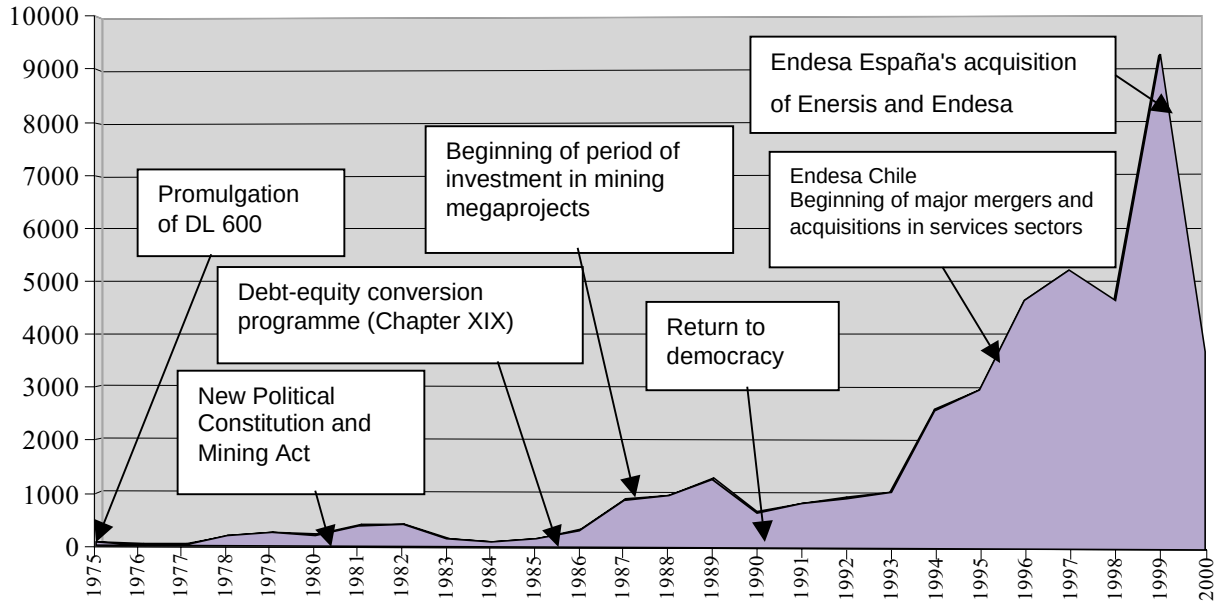
In the early 1990s the improvement in the investment climate was consolidated. This process was aided by the positive macroeconomic indicators generated by the Chilean economy, whose attractiveness was enhanced by the re-establishment of a democratic system. The debt-equity conversion programme thus allowed Chile to become rapidly reintegrated into international business circles by attracting financial resources to new sectors (agribusiness, pulp and paper) from investor countries which had not previously been very active in Latin America (New Zealand, Australia, Saudi Arabia, etc.). Meanwhile, investments in traditional activities, in particular mining, met with favourable conditions that sparked a cycle of major investments which lasted almost throughout the 1990s. Towards the end of the decade, large-scale flows of FDI into services activities began to shape a new pattern in the involvement of transnational corporations in the Chilean economy (see figure II.1).

2. FDI in the 1990s: from mining to services

In the 1990s the Chilean economy posted one of the best performances in Latin America and the Caribbean in terms of FDI inflows. In fact, the country was one of the main destinations for international investors in a period in which the region was slowly beginning to recover from the effects of the external debt crisis of the 1980s. In the case of Chile, a very significant share of the first investments made during this boom period were for new projects, particularly in sectors linked to the extraction and processing of natural resources for export. In other South American countries, most FDI inflows were associated with privatization programmes.

At the beginning of the decade the successful debt conversion programme (Chapter XIX) was the initial

Figure II.1
CHILE: FOREIGN DIRECT INVESTMENT, 1975-2000



Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the International Monetary Fund and the Central Bank of Chile.

driving force behind the spectacular growth of FDI inflows. During the first part of the 1990s flows amounted to an annual average of US$ 1.5 billion, then climbed to an average of almost US$ 5.5 billion between 1996 and 2000 (see table II.1 and figure II.1). DL 600 was the main mechanism for FDI inflows to Chile during this period, accounting for some 90% of the total. The stability of the regulatory framework, the rapid and sustained upturn in the economy and the maturity of some export activities contributed to this performance.

As in the past, mining continued to be the main focus of interest for foreign investors. In the mid-1980s several mining megaprojects began to be developed in the northern part of the country; these private initiatives have substantially altered the structure of the sector. A large share of the investments that turned these deposits into productive concerns took place in the period 1990-1995, when mining accounted for 58% of total FDI flows (see figure II.2). In this period there was also a sustained upturn in investments in service activities, especially in the financial and telecommunications sectors.[16] Manufactures accounted for 15% of total FDI flows in this period, with investments linked largely to resource-processing industries (agribusiness, foodstuffs, and paper and pulp).

Although mining continued to draw large volumes of investment in the period 1996-2000, the sector declined in importance relative to services. Recent years have seen an intensive wave of mergers and acquisitions of local private companies by foreign firms

16 A very large proportion of investments in the financial sector correspond to foreign capital investment funds (known as FICEs). Although these resources entered the country under the rules of DL 600, they are considered portfolio investments (Calderón and Griffith-Jones, 1995).

Table II.1
CHILE: FOREIGN DIRECT INVESTMENT, 1985-2000
(Millions of dollars)

	1985-1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total FDI	**720**	**661**	**822**	**935**	**1 034**	**2 583**	**2 957**	**4 634**	**5 219**	**4 638**	**9 221**	**3 676**
Chapter XIV	8	35	96	157	-52	250	406	411	900	215	641	657
Inflows	12	35	98	158	…	…	410	441	921	539	689	736
Re-exports	-4	0	-2	-1	…	…	-4	-30	-21	-324	-48	-79
DL 600	155	233	766	752	1 384	2 377	2 665	4 206	4 217	4 657	8 580	2 884
Inflows	240	242	492	574	1 124	1723	1 786	3 926	3 742	4 312	8 772	2 623
Re-exports	-85	-33	-36	-62	-210	-108	-298	-216	-285	-57	-476	-370
Reinvestment of earnings	0	24	311	240	469	762	1 177	497	760	403	285	631
Chapter XIX	557	393	-40	27	-298	-44	-115	15	102	-234	-1	135
Inflows	557	339	18	0	0	0	0	0	0	0	0	0
Re-exports	0	0	-58	-31	-55	-104	-214	-82	-24	-316	-30	0
Reinvestment of earnings	0	55	0	58	-243	59	99	97	126	81	29	135

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Central Bank of Chile **(**http://www.bcentral.cl/Indicadores/htm/Inversion_extranjera.htm).

—particularly energy firms— and the privatization of some public utilities in the water and sanitation sector. In the second half of the decade services thus attracted 64% of FDI inflows, especially in the areas of electricity, gas and water (27% of the total) and the financial sector (20%) (see figure II.2). As a result of this trend and unlike the situation in previous years, a large percentage of recent direct investments have corresponded to ownership transfers and have thus not helped to increase the country's production capacity. In addition, the manufacturing sector received less FDI than in the previous period, accounting for just over 10% of FDI inflows.

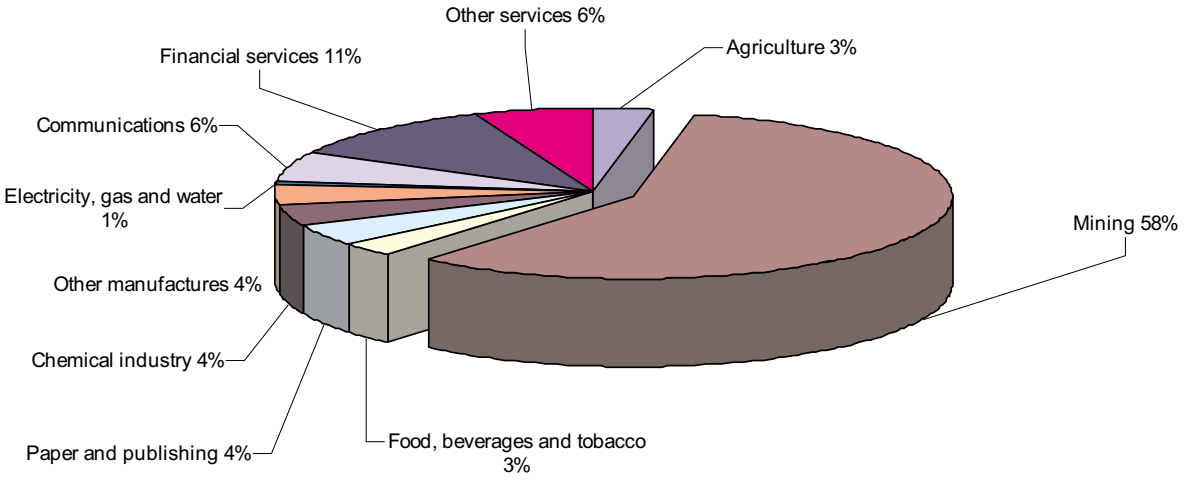
The evolution in sectoral FDI trends has also entailed a change in the geographic origin of capital flows. The prevalence of North American (United States and Canadian) firms in the development of mining megaprojects has given way to a strong market presence on the part of European (particularly Spanish) firms in the services sector (see figure II.3). Between 1990 and 1995, 40% of FDI inflows into the country under DL 600 —two thirds of which went to mining projects— originated in the United States and a further 22% came from Canadian firms, also mostly in mining. During this period there were also significant investments from South African, Japanese and British firms participating in consortiums created to conduct some of these major highly capital-intensive mining projects.

In the second half of the 1990s, FDI began to be less concentrated in terms of geographic origin and sectoral destination. The large-scale arrival of European —mainly Spanish— companies in the services sector added to the effect of the growing diversification of United States investments. Just a little over 20% of these latter investments were directed at mining projects, while over 61% were in services activities (finance, energy and telecommunications). In this period, together with the growing importance of services, one of the most significant phenomena has been the rapid expansion of Spanish companies. From having a marginal presence, Spain came to account for 30% of FDI inflows between 1996 and 2000, thus becoming the leading investor in Chile. These figures reflect the use of an active strategy of internationalization by Spanish companies in Latin America, and particularly Chile, in the energy sector (Calderón, 1999) (see figure II.3).

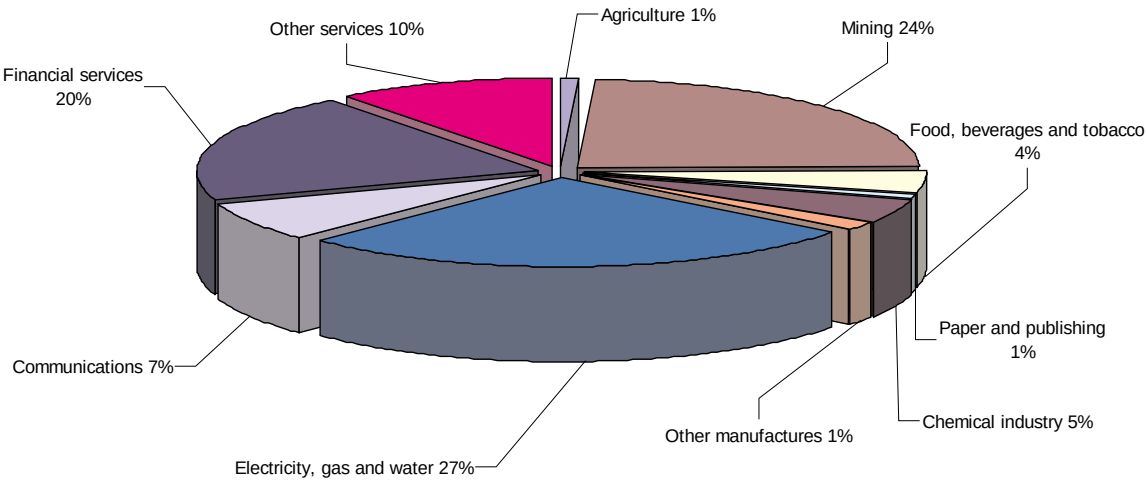
These major changes in the volume of investment, modalities of entry, sectors of destination and main investor countries are reflected in the local business environment. Of the 20 largest Chilean firms, FDI represents majority stakes in nine and, of the rest, two are State-owned and nine are privately-owned local firms.

Figure II.2
CHILE: FOREIGN DIRECT INVESTMENT BY SECTOR, 1990-2000
(Percentages)

1990-1995



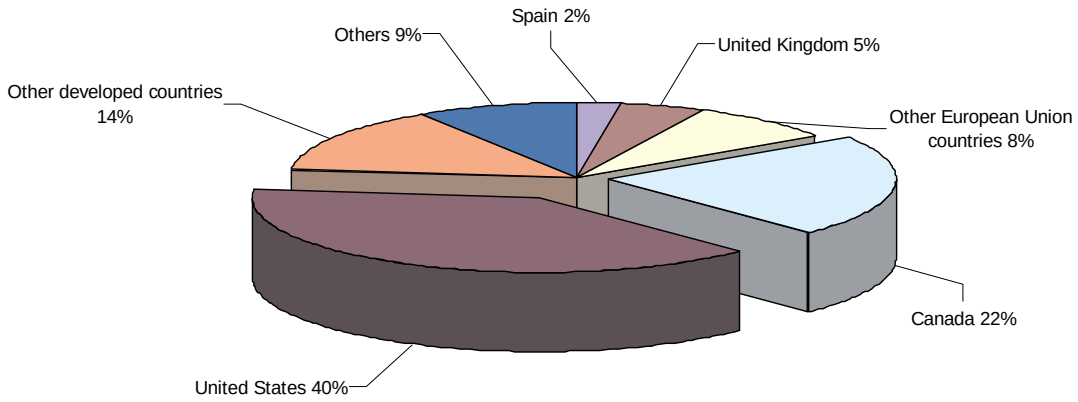
1996-2000



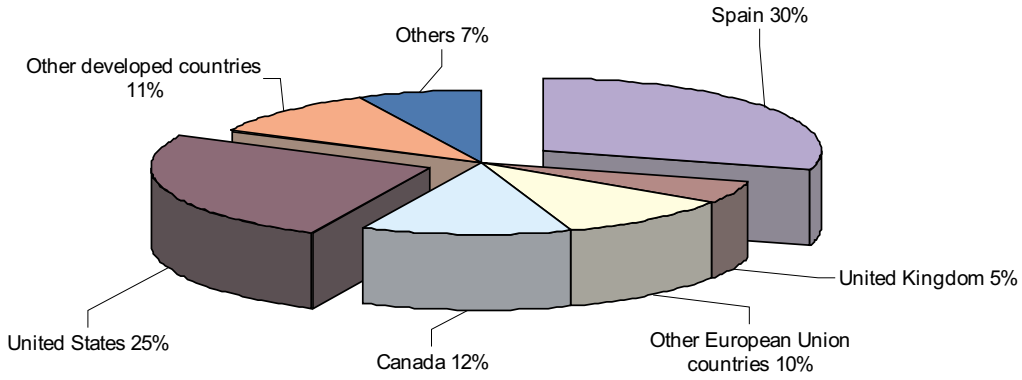
Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Foreign Investment Committee of the Ministry of Economic Affairs, Mining and Energy of Chile.

Figure II.3
CHILE: FOREIGN DIRECT INVESTMENT BY COUNTRY OF ORIGIN, 1990-2000
(Percentages)

1990-1995



1996-2000



Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Foreign Investment Committee of the Ministry of Economic Affairs, Mining and Energy of Chile.

Among the foreign firms, services companies have increased in number, particularly rapidly, especially in the electrical energy and telecommunications sectors (see table II.2). Among the main exporting companies, however, the foreign presence is much more significant. Of the 20 largest exporters (with external sales of over US$ 100 million), 14 are foreign firms, and 9 of these are mining companies.

FDI and the presence of transnational corporations have thus radically altered the Chilean economy over the last decade. Firstly, these capital inflows, and particularly the heavy investments made in the mining sector, have been largely responsible for the increase in exports. Other activities in which the availability of foreign capital has contributed to export growth include several that are being pursued in the agribusiness, fisheries and forestry sectors in association with local enterprises —mainly through debt-equity swap mechanisms. In the 1990s, FDI in many of these joint ventures dried up, and private local groups thus gained control of the production of a number of export commodities (pulp and paper, fishmeal, etc.). The interest of foreign investors shifted to other resource-based activities not involving commodities which offer more added value and afford greater significance to certificates of origin (fine wines, salmon and, to a lesser extent, fresh fruit). One of the main impacts of the presence of foreign capital in the economy can thus be judged in terms of the country's international competitiveness.

Between 1985 and 1998 Chile's robust export growth —especially of natural resources and resource-based manufactures— increased its share of the world market from 0.23% to 0.32% (see table II.3). The country's share in the world market for natural resources grew from 0.41% to 1.06%, while in resource-based manufactures the increase was from 0.61% to 0.95%. The percentage of Chile's total exports which fell into these two categories continued to be around 90%. The country has thus specialized in sectors that are growing little or not at all in international trade, which means that it has had to displace other actors in order to increase its market share. In fact, none of Chile's 10 main export products belong to the group of dynamic ones of international trade, and consequently none are increasing their share of world imports (see table II.3). The trends shown by the Chilean economy are nonetheless remarkable, given the characteristics and size of the country. Chile has thus become a preferred location for many transnational corporations involved in extractive activities which have undergone major operational restructuring at the world level.

Along with other large Latin American economies, Chile still has a production base inherited from the import substitution years. Owing to the broad-ranging process of trade liberalization implemented in the country, however, the subsidiaries of transnational corporations have embarked upon intensive processes of rationalization which have been reflected in a marked reduction in its technology- and knowledge-intensive production activities. Local subsidiaries have therefore become increasingly specialized under major transnational corporations' regional restructuring programmes. Subsidiaries of Nestlé, Unilever, General Motors, Coca-Cola and Procter & Gamble thus continue to occupy important positions among the largest foreign-owned enterprises in the Chilean economy (see table II.2), but they now have closer links with their sister subsidiaries in neighbouring countries and their production activities are increasingly specialized. General Motors is a case in point, in that it has shifted from producing small runs of several different models for the domestic market to specializing in assembling a single model (LUV pick-up trucks) for the national and regional markets. In fact, the General Motors subsidiary figures among the country's 20 largest export companies, standing in twelfth place among the foreign firms in this category (see table II.3).

Although the presence of foreign firms in the services area has undoubtedly been instrumental in improving Chile's systemic competitiveness, this has been less true for other countries of the region, since a significant percentage of the largest services companies were owned by local groups during their expansion and consolidation phases. It has been only recently that the positive performance of these companies and their internationalization within Latin America have attracted a significant degree of attention from transnational corporations seeking to assume regional leadership positions.

This phenomenon reflects a curious aspect that warrants further examination. Foreign firms were decisive in the success of the first phase of Chilean export-based economic development, but they then withdrew from those activities that were most sensitive to international price cycles. The exception to this was the mining industry. In the services sectors, however, transnational firms initially accounted for a relatively insignificant share, with local groups maintaining their leadership after the privatizations of the early 1980s. The main exception to this was basic telephone services. In response to the solid performance of these sectors, however, foreign firms began to seek controlling stakes in the companies involved, and this generated a wave of mergers and acquisitions on an unprecedented scale. In short, foreign firms have pursued two basic strategies in the Chilean economy in recent years:

Table II.2
CHILE: 50 LARGEST FULLY OR PARTLY FOREIGN-OWNED FIRMS,[a] BY VALUE OF SALES, 1999-2000
(Millions of dollars)

	Firm	Sector	Sales	Foreign investor	Foreign capital (%)	Country of origin	Exports
1	Enersis S.A.	Electricity	4 284	Endesa España	64.0	Spain	13
2	Empresa Nacional de Electricidad S.A. (ENDESA)	Electricity	1 622	Endesa España	38.4	Spain	…
3	Telefónica CTC Chile	Telecom.	1 602	Telefónica de España	43.6	Spain	…
4	Minera Escondida Ltda.	Mining	1 174	Broken Hill Proprietary, BHP (57.5%) / Rio Tinto (30%)	100.0	Australia/ United Kingdom	1 052
5	Gener S.A.	Electricity	832	AES Corp.	96.5	United States	…
6	Shell Chile	Petroleum	768	Royal Dutch-Shell Group	100.0	United Kingdom/ Netherlands	…
7	Empresa Nacional de Telecomunicaciones S.A. (ENTEL)	Telecom.	710	Telecom Italia Spa	54.2	Italy	…
8	Santa Isabel S.A.	Commerce	695	Royal Ahold N.V.	74.0	Netherlands	…
9	Compañía Minera Doña Inés de Collahuasi SCM	Mining	680	Anglo American Plc (44%)/ Falconbridge Ltd (44%)/ Mitsui Group (12%)	100.0	United Kingdom/ Canada/Japan	452
10	Esso Chile Petrolera Ltda.	Petroleum	651	Exxon Mobil Corporation	100.0	United States	…
11	Nestlé Chile	Foodstuffs	650	Nestlé	100.0	Switzerland	…
12	Industria Azucarera Nacional S.A. (IANSA)	Foodstuffs	549	Azucarera Ebro Agrícolas	45.0	Spain	65
13	Chilectra S.A.	Electricity	502	Endesa España	46.6	Spain	...
14	Lever Chile S.A.	Chemicals	425	Unilever	100.0	United Kingdom	9
15	Chilquinta Energía S.A. (Enerquinta)	Electricity	402	Sempra Energy (50%)/ Public Services Enterprise Group, PSEG (50%)	100.0	United States	…
16	Sociedad Contractual Minera El Abra	Mining	401	Phelps Dodge Corporation	51.0	United States	359
17	General Motors Chile S.A.	Motor vehicles	370	General Motors	100.0	United States	120
18	Compañía Minera Disputada de Las Condes Limitada	Mining	368	Exxon Mobil Corporation	100.0	United States	253
19	Coca Cola Embonor S.A.	Foodstuffs	344	The Coca-Cola Company	44.4	United States	…
20	Compañía Contractual Minera Candelaria	Mining	331	Phelps Dodge Corp (80%)/ Sumitomo Corp (20%)	100.0	United States/ Japan	306
21	Sociedad Productores de Leche S.A. (SOPROLE)	Foodstuffs	311	New Zealand Dairy Board	50.5	New Zealand	…
22	Empresa Metropolitana de Electricidad S.A. (EMEL SA)	Electricity	289	Pennsylvania Power and Light (PP&L)	95.4	United States	…
23	Johnson & Johnson Chile	Chemicals	260	Johnson & Johnson	100.0	United States	…
24	Empresa Minera Mantos Blancos S.A.	Mining	219	Anglo American Plc	100.0	United Kingdom	185
25	Methanex Chile	Chemicals	211	Methanex Corporation	100.0	Canada	204
26	Empresas Melón S.A.	Cement	178	Blue Circle Industries Plc	82.7	United Kingdom	…
27	Compañía Chilena de Tabacos (CCT)	Tobacco	154	British American Tobacco Plc (BAT)	76.4	United Kingdom	12
28	Procter & Gamble Chile	Chemicals	150	Procter & Gamble	100.0	United States	…

Table II.2 (concluded)

	Firm	Sector	Sales	Foreign investor	Foreign capital (%)	Country of origin	Exports
29	Empresa Metropolitana de Obras Sanitarias (EMOS)	Sanitation	140	Suez Lyonnaise des Eaux (25.6%)/Aguas de Barcelona (25.6%)	51.2	France / Spain	…
30	Cementos Polpaico	Cement	138	Holderbank	53.9	Switzerland	…
31	Dole Chile S.A.	Agriculture	137	Dole Food Company Inc.	100.0	United States	137
32	Forestal Terranova S.A.	Forestry	132		81.2	Switzerland	110
33	Compañía Minera Mantos de Oro	Mining	130	Placer Dome Inc.	100.0	Canada	130
34	VTR Global Com S.A.	Telecom.	127	United Global Com. Inc.	100.0	United States	…
35	Editorial Lord Cochrane S.A.	Editorial	122	R.R. Donnelley & Sons Company	98.5	United States	44
36	Compañía Minera Quebrada Blanca S.A.	Mining	119	Aur Resources Inc.	76.5	Canada	119
37	Bata Chile	Textiles	117	Thomas Bata Ltd.	100.0	Canada	…
38	Exportador Unifrutti Traders Limitada	Agriculture	113	De Nadai Group (DNG)	95.3	Italy	113
39	Pesca Chile	Fisheries	109	Pescanova S.A.	50.0	Spain	109
40	Ewos Chile S.A.	Foodstuffs	106	Ewos	100.0	Norway	…
41	Cosméticos Avon Chile S.A.	Chemicals	105	Avon Inc.	100.0	United States	1
42	Sodexho Chile S.A.	Commerce	100	Sodexho Alliance	100.0	France	…
43	Smartcom PCS	Telecom.	99	Endesa España	100.0	Spain	…
44	Mainstream Salmones y Alimentos S.A.	Fisheries	65	Ewos	92.7	Norway	…
45	Empresa de Obras Sanitarias de Valparaíso (ESVAL)	Sanitation	64	Anglian Water	40.6	United Kingdom	…
46	Papeles Bio-Bio S.A.	Paper	64	Fletcher Challenge Ltd.	100.0	New Zealand	33
47	Industrias de Maíz y Alimentos S.A.	Foodstuffs	60	Bestfoods	100.0	United States	1
48	Parmalat Chile	Foodstuffs	60	Parmalat Finanziaria S.p.A.	100.0	Italy	…
49	Pesquera Mares Australes Ltda.	Fisheries	58	Nutreco	100.0	Netherlands	54
50	L'Oréal Chile S.A.	Chemicals	57	L'Oréal	100.0	France	6

Souce: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of América economía, Gazeta mercantil latinoamericana, Diario Estrategia and El diario, and information provided directly by the firms.

[a] Foreign stake in December 2000.

- *Pursuit of raw materials for export*. Chile's abundant natural resources have made the country a target for the main transnational corporations in the mining sector and in some activities associated with agriculture and forestry. In recent years, foreign investors' interest has tended to shift from resource-based commodities (pulp and paper, fishmeal) to less standardized products for which certificates of origin are an important factor (fine wines and salmon).

Access to domestic and regional markets in the services sector. This is the case of telecommunications, financial services and, more recently, the generation and distribution of electrical energy and of drinking water and sanitation services. The regional leadership exercised by some local groups early on attracted the attention of transnational firms seeking to position themselves internationally as global service groups.

Table II.3
CHILE: INTERNATIONAL COMPETITIVENESS IN WORLD IMPORTS, 1985-1998

			1985	1990	1995	1998
I. Market share			**0.23**	**0.29**	**0.32**	**0.32**
Natural resources[a]			0.41	0.76	1.03	1.06
Resource-based manufactures[b]			0.61	0.80	0.90	0.95
Non-resource-based manufactures[c]			0.02	0.03	0.05	0.04
- Low technology[d]			0.02	0.04	0.06	0.06
- Mid-level technology[e]			0.02	0.03	0.06	0.06
- High technology[f]			0.01	0.01	0.01	0.01
Other[g]			0.21	0.21	0.18	0.16
II. Export structure (contribution)			**100.0**	**100.0**	**100.0**	**100.0**
Natural resources[a]			41.3	42.0	42.4	41.4
Resource-based manufactures[b]			51.6	49.7	46.1	47.4
Non-resource-based manufactures[c]			4.1	5.9	9.6	9.4
- Low technology[d]			1.0	2.3	3.0	3.3
- Mid-level technology[e]			2.8	3.3	5.8	5.5
- High technology[f]			0.3	0.3	0.7	0.6
Other[g]			2.9	2.4	1.9	1.8
III. 10 main exports by contribution, 1998		[h] [i]	**75.7**	**75.4**	**69.9**	**71.4**
682	Copper	+	34.5	33.4	24.7	26.1
287	Ores and concentrates of base metals	+	11.3	10.0	12.7	11.7
057	Fruit and nuts (not including oil nuts), fresh or dried	+	12.4	13.4	10.5	10.5
034	Fresh fish (live or dead) chilled or frozen	+	1.5	4.4	5.6	7.0
251	Paper pulp and waste	+	4.1	3.5	6.1	4.2
112	Alcoholic beverages	+	0.3	0.7	1.6	3.3
081	Feeding-stuff for animals (not including unmilled cereals)	-	5.8	4.1	3.7	2.8
248	Wood, simply worked, and railway sleepers of wood	+	1.7	2.5	2.2	2.8
512	Alcohols, phenols, phenol-alcohols and their derivatives	+	0.1	0.9	1.2	1.5
281	Iron ore and concentrates	-	3.9	2.5	1.6	1.5

Source: ECLAC, on the basis of the ECLAC computer program (CAN) for analysing the international competitiveness of countries. Groups of goods based on the Standard International Trade Classification (SITC Rev.2).

[a] Contains 45 simply processed commodities, including concentrates.
[b] Contains 65 items: 35 agricultural/forestry groups and another 30 (mostly metals other than steel, petroleum products, cement, glass, etc.).
[c] Contains 120 groups which represent the sum of d + e + f .
[d] Contains 44 items: 20 groups of the textile and wearing apparel cluster, plus another 24 (paper products, glass and steel, jewels).
[e] Contains 58 items: 5 groups from the motor-vehicle industry, 22 from processing industries and 31 from the engineering industry.
[f] Contains 18 items: 11 groups from the electronics cluster plus another 7 (pharmaceutical products, turbines, aeroplanes, instruments).
[g] Contains 9 non-classified groups (mostly from section 9).
[h] Groups that correspond (*) to the 50 fastest-growing categories in world imports, 1985-1998.
[i] Groups in which gained Chile (+) or lost (-) market share in world imports, 1985-1998.

B. STRATEGIES OF TRANSNATIONAL CORPORATIONS IN CHILE

1. Pursuit of natural resources for export

(a) Metal mining: the great magnet of the Chilean economy

Chile has an abundance of rich mineral deposits that have attracted the world's foremost mining companies. Since the beginnings of this activity, the mining sector has been very significant for the Chilean economy (see table II.3). At the present time, mining accounts for 44% of Chile's exports, 35% of its FDI stock, 8% of GDP and close to 16% of gross fixed capital formation. The sector is dominated by copper, which accounts for almost 85% of all mining exports, making Chile the principal copper producer in the world and the location of the largest known reserves of this mineral.[17]

From the beginnings of the copper mining industry and until it was nationalized in the 1970s, mining concerns were owned almost exclusively by foreign firms. In 1971 a constitutional reform resulted in the deposits owned by the United States firms Anaconda, Kennecott and Cerro Corporation being transferred to the Chilean State, which then established the Corporación Nacional del Cobre de Chile (CODELCO). This State enterprise thus came to account for 84% of Chile's copper production.[18] This situation came about at a time when most of the Latin American countries were involved in a lengthy, large-scale effort to nationalize their resource-based industries.

With the military coup of 1973 and the new direction taken by economic policy, the situation in the Chilean mining sector began to change rapidly, at least in terms of its regulatory framework. The advent of DL 600, which promoted FDI in all economic activities, was followed by constitutional reforms in 1980 that guaranteed private investors ownership rights over mining concessions, although the State maintained ownership of the deposits themselves. To this end, the Government passed the Constitutional Mining Concessions Organization Act and the Mining Code, which both came into effect in 1983. The new regulations were nothing short of a pioneering step in Latin America, as they incorporated the concept of full concession and an attractive compensation mechanism in the case of expropriation based on the present value of the future flows that the concession would generate. It also provided for a favourable taxation scheme, which afforded an implicit subsidy to mining activity.[19] Private investors were slow to respond to these changes, however.

Competition among the main copper producers continued to increase on the international market during the 1970s. On the one hand, substitutes with technological and price advantages began to appear and, on the other, the industry entered into a phase of deconcentration, with the emergence of independent producers in the United States, Canada, Peru, Philippines and Indonesia (Bande, Marshall and Silva, 1993). With demand declining, the price of copper fell sharply and competition became more aggressive. This plunged the large companies of the industry into a deep crisis, particularly United States firms that were accustomed to setting market conditions (see figure II.4). Some of these firms even asked the United States Government to implement protectionist measures to help them deal with this new competitive environment, but these initiatives were not ultimately successful. This situation —exacerbated by the toughening of environmental regulations in developed countries— revealed a lack of competitiveness on the part of United States companies, which were obliged to develop strategies directed at improving efficiency and reducing costs. High-cost operations were therefore shut down, production processes were modernized[20] and enhanced with new technologies, and labour underwent significant restructuring, which included redundancies, contract

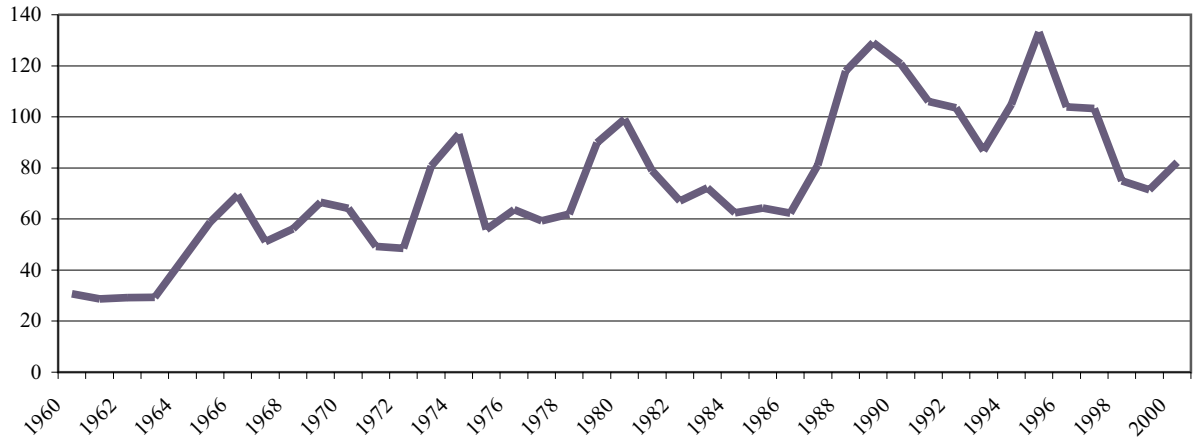
17 In 1998, Chile accounted for 30% of the world's mined copper production, with 3,687 metric tons of fine metal. Chile was followed by the United States with 15.1%, Indonesia (6.6%), Canada (5.7%), Australia (4.9%), Russia (4.1%) and Peru (3.9%) (COCHILCO, 1999).

18 CODELCO was organized into four divisions corresponding to the nationalized deposits of Chuquicamata, El Salvador, Andina and El Teniente.

19 Mining benefits from rapid depreciation of fixed assets. Also, joint ventures in mining are not subject to the 35% tax on distributed earnings until they record a book profit.

20 The most significant innovations include leaching, solvent extraction and electrowinning (Sx-Ew). New systems for transporting materials also came into use, along with semi-mobile crushers used inside the mines, heavy mining equipment, semi-autogenous mills, large flotation cells, autogenous fusion processes, use of oxygen in smelting, etc.

Figure II.4
PRICE OF COPPER ON THE LONDON METAL EXCHANGE, 1960-2000
(Cents per pound)



Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information published in Boletín estadístico mensual of the Chilean Copper Commission.

renegotiation, salary cuts and new forms of subcontracting. Companies thus focussed their objectives on cost minimization, improved efficiency and reduced external vulnerability (Sánchez, Ortiz and Moussa, 1999; Moussa, 1999).[21]

Beginning in 1986, the downward trend was reversed and copper prices boomed (see figure II.4). In combination with technological improvements, high prices led to the re-opening of mines that had been closed, expansion of some working mines and the development of new projects. This phenomenon had the effect of stepping up the pace of restructuring in the copper industry. In addition to the earlier changes, the industry witnessed the internationalization of production, diversification through acquisitions and the establishment of strategic alliances and joint ventures as mechanisms for securing the financial resources needed to launch new megaprojects. New means of organization made it possible to benefit from economies of scale, synergies and externalities associated with a more flexible supply, facilitate access to new technologies, secure more and better sources of financing and increase negotiating power vis-à-vis refineries and suppliers.

As mentioned previously, despite many far-reaching reforms of the regulatory framework and the country's abundant high-quality deposits, the Chilean economy did not receive significant sums in investment between 1974 and 1985. In this period CODELCO became the largest copper producer in Chile —and, indeed, the world— and, in fact, it and Minera Disputada de Las Condes (owned by the United States firm Exxon Mobil) accounted for almost all domestic production. This trend was attributable to the wariness of foreign investors —given the recent nationalizations— and the intensive restructuring of the world's largest mining companies. In the second half of the 1980s, however, as profitability picked up and the strategies of transnational companies changed, foreign investment flowed into Chile on a large scale. Technological advances in the copper industry, a positive price cycle and the country's particular characteristics —exceptional geological conditions, favourable

21 To a great extent, in the mining —and particularly copper— market, pricing is an exogenous factor and does not depend on conditions that agents on the supply or demand sides may impose voluntarily. Price determination is influenced by supply factors, such as new explorations and projects, installed capacity and technological advances, and by demand factors such as level of consumption by end-user industries, level of economic activity and technological changes. A price that reflects the aggregate balance between supply and demand is thus determined on the basis of the world's major metal exchanges. In Chile the reference used is the London Metal Exchange.

regulatory framework and skilled and experienced labour— combined to make Chile an attractive prospect in the context of the new strategies of the largest mining companies, which were aimed at expanding and diversifying activities, reducing costs and making supply more flexible.

In 1990 various deposits that had been at earlier stages (exploration, feasibility studies or seeking financing) gradually began to come on stream.[22] This brought some of the world's largest mining companies to Chile, such as Broken Hill Proprietary (BHP) of Australia, Phelps Dodge Corporation of the United States, Rio Tinto Zinc and Anglo American from the United Kingdom and the Canadian firms Placer Dome, Falconbridge and Rio Algom (recently acquired from Billiton Plc of the United Kingdom). Between 1990 and 1995 the mining sector drew 58% of Chile's total FDI income, amounting to over US$ 1 billion per year (including associated credits). In the second part of the decade, although the share of mining in total FDI inflows decreased to 24%, in absolute terms income increased to an annual average of US$ 1.3 billion (see figure II.2). These resources made it possible for a large number of new private ventures to become operational, including La Escondida, Doña Inés de Collahuasi, El Abra and Candelaria (see table II.4). At the end of 2000, La Escondida was the largest private mine in operation and accounted for 21% of total domestic copper production (see table II.5 and box II.1).

These investments in Chile were a clear reflection of the new corporate strategies that were beginning to emerge in the mining sector. The need to strengthen world demand and defend the copper market obliged all the corporations —including CODELCO— to develop a shared vision of the industry's future (Moguillansky, 1999). One novel aspect was the establishment of cross-equity holdings, corporate alliances and joint ventures as a way of responding to the high cost of projects. Former rival firms thus formed partnerships and consortiums to work the new Chilean deposits jointly. Examples include BHP and Rio Tinto Zinc in La Escondida, and Falconbridge and Anglo American in Doña Inés de Collahuasi (see box II.1). Later, associations were also established between the State enterprise CODELCO[23] and Phelps Dodge to work El Abra, and between Chile's Luksic group and Japanese investors to develop the deposit at Los Pelambres, which came on stream in early 2000 (see table II.4). Firms also began to give priority to sites located in areas where other deposits were available to replace depleted reserves; several phases of the extension of La Escondida are an example of this. Also notably, a long-term agreement was signed under the aegis of the International Copper Association to create a fund to promote and research new uses for copper.

A novel aspect of Chilean mining projects has been the involvement of Japanese investors, which has not been common in Latin America and the Caribbean (see chapter III). These investors have participated in consortiums established to work the new deposits by contributing to project financing, but have avoided becoming involved in management. In most cases these alliances have been large, highly diversified consortiums whose interest lies in securing a steady and reliable supply of copper ore, which is used as an input in the production of final goods. It is also striking that private local investors have become involved in an activity that was once almost exclusively the domain of transnational corporations and CODELCO. In the last three years the Luksic group has invested some US$ 1.7 billion in operating Los Pelambres, Michilla and El Tesoro deposits.

Copper mining has thus become an increasingly globalized activity, as the main agents consolidate their market position. Like other sectors, mining has seen an increasing number of mergers and acquisitions at the world level, including the purchase of the United States firm Cyprus Amax by Phelps Dodge (at a cost of US$ 1.7 billion in October 1999) and the acquisition of Rio Algom by Billiton Plc of the United Kingdom (for US$ 1.2 billion in October 2000). Although the operation ultimately fell through, even the State enterprise CODELCO sought to consolidate its leading position by attempting to buy Rio Algom jointly with the Canadian firm Noranda. All this has meant that by the end of the 1990s the five main companies controlled almost 45% of the world market (see table II.6).

These capital flows caused major changes in the sector and profoundly altered the Chilean economy as a whole. Firstly, the operation of the new deposits meant that domestic production of refined copper grew at an annual rate of 12.3% between 1990 and 1999. Private

22 Between 1974 and 1985 petroleum companies (Shell, Chevron and Exxon) seeking to diversify their operations into copper extraction in mineral-rich areas and firms from Canada (Rio Algom, Cominco and Falconbridge), Australia (BHP) and Finland (Outokumpu), undertook a large number of exploratory projects which ultimately yielded income of over US$ 1.3 billion (Moguillansky, 1999).

23 In 1992 a law was enacted allowing CODELCO to form associations with third parties, thus permitting joint exploration and exploitation with private firms.

Table II.4
CHILE: MAIN MINING VENTURES
(Millions of dollars and percentages)

Firm	Foreign investor	Foreign capital (%)	Country of origin	Exports (1999)	Actual FDI (1998)	Start of venture	Start of production
Minera Escondida Ltda.	Broken Hill Proprietary, BHP (57.5%) / Rio Tinto Zinc (30%) / JECO Corporation (10%) / World Bank (2.5%)	100.0	Australia/ United Kingdom/ Japan	1 643	1 847	1988	1991
Compañía Minera Doña Inés de Collahuasi SCM	Anglo American Plc (44%) / Falconbridge Ltd (44%) / Mitsui Group (12%)	100.0	United Kingdom/ Canada/ Japan	452	1 630	1996	1998
Sociedad Contractual Minera El Abra[a]	Phelps Dodge Corporation	51.0	United States	359	1 349	1995	1996
Compañía Minera Disputada de Las Condes Limitada	Exxon Mobil Corporation	100.0	United States	253	1 995	…	1916
Sociedad Contractual Minera Candelaria	Phelps Dodge Corp (80%) / Sumitomo Corp (20%)	100.0	United States / Japan	306	457	…	1994
Empresa Minera Mantos Blancos S.A.	Anglo American Plc	100.0	United Kingdom	185	…	…	…
Compañía Minera Mantos de Oro	Placer Dome Inc.	100.0	Canada	130	305	…	…
Compañía Minera Quebrada Blanca S.A.	Aur Resources Inc.[b]	76.5	Canada	119	369	1993	1994
Compañía Minera Cerro Colorado	Billiton Plc[c]	100.0	United Kingdom		564	1992	1994
Compañía Minera Los Pelambres[d]	Mitsubishi Corp. (15%) / Nippon Mining & Metals Co. Ltd. (15%) / Marubeni Corp. (8.8%) / Mitsui & Co. Ltd. (1.3%)	40.0	Japan	…	1 360	1997	2000
Sociedad Contractual Minera Zaldívar	Placer Dome Inc.	100.0	Canada	…	409	…	1995
Compañía Minera Lomas Bayas	Westmin Resources Ltd.	100.0	Canada	…	278	1997	1998
Compañía Minera El Indio	Barrick Gold Corporation	100.0	Canada	…	…	1978	1990

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Chilean Copper Commission and the Foreign Investment Committee of the Ministry of Economic Affairs, Mining and Energy of Chile.

[a] The remaining 49% is held by CODELCO.

[b] In November 2000, Aur Resources purchased 76.5% of the Quebrada Blanca mine, which was owned by Cominco Limited and Teck Corporation, at a cost of US$ 181 million.

[c] In August 2000, Billiton Plc acquired the Canadian firm Rio Algom for US$ 1.2 billion, including its mining concerns in Chile.

[d] 60% is held by the Chilean group Luksic.

Table II.5
PRODUCTION OF MARKETABLE COPPER
(Thousands of metric tons of fine copper)

	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999	2000
Large-scale mining	**904**	**1 077**	**1 195**	**1 156**	**1 139**	**1 134**	**1 165**	**1 221**	**1 231**	**1 403**	**1 507**	**1 483**
CODELCO	904	1 077	1 195	1 156	1 139	1 134	1 165	1 221	1 231	1 403	1 507	1 483
Private mining	**64**	**134**	**220**	**593**	**715**	**890**	**1 109**	**1 677**	**1 958**	**2 083**	**2 696**	**2 923**
Escondida	-	-	9	336	389	484	467	841	933	868	958	915
Collahuasi	-	-	-	-	-	-	-	-	-	48	435	433
Disputada	28	77	112	132	181	188	198	201	202	216	248	256
Candelaria	-	-	-	-	-	31	150	137	156	215	227	207
El Abra	-	-	-	-	-	-	-	51	194	199	220	199
Mantos Blancos	35	57	72	69	75	77	76	122	133	138	152	155
Zaldívar	-	-	-	-	-	-	22	77	96	135	150	148
Cerro Colorado	-	-	-	-	-	21	34	59	60	75	100	116
Quebrada Blanca	-	-	-	-	-	7	46	68	67	71	73	73
Michilla[a]	-	-	-	13	20	27	56	63	63	62	61	52
Lomas Bayas	-	-	-	-	-	-	-	-	-	19	45	50
El Indio	-	-	27	25	28	31	35	35	32	28	15	14
Los Pelambres[a]	-	-	-	17	22	23	23	23	23	9	12	305
Small mining enterprises	**105**	**137**	**173**	**184**	**201**	**196**	**213**	**217**	**202**	**201**	**179**	**38**
ENAMI	103	122	142	148	154	119	127	128	97	83	71	...
Others	2	14	30	35	47	78	86	89	105	118	108	...
Total	**1 073**	**1 348**	**1 588**	**1 933**	**2 055**	**2 220**	**2 487**	**3 116**	**3 392**	**3 687**	**4 383**	**4 444**

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Chilean Copper Commission (COCHILCO).

[a] Ventures conducted by the Chilean group Luksic.

mining —largely with foreign capital— was the driver of this trend, with an annual growth rate of 35.6%, while CODELCO recorded growth of just 3.6% per year. Chile therefore increased its share of world copper output and consolidated its position as top producer, with an increase from 18% in 1990 to 30% in 1999 (COCHILCO, 1999). Secondly, the share of fully or partly foreign-owned private projects in Chile's total copper production increased sharply. Between 1985 and 2000 the share of private projects increased from 10% to 66%, while the CODELCO share of total production fell from 80% to 33% (see table II.5). Thirdly, the growth of the mining industry has had a powerful impact on the sector's exports, which grew by 6.9% yearly over the last decade, to account for 44% of Chile's total external sales in 1999. Lastly, these investments brought new technologies, organizational know-how and equipment supply firms which have helped to modernize the sector and close the gap with more competitive mining industries (Katz, Cáceres and Cárdenas, 2000).

In recent years, gold mining in Chile has also received a considerable boost. Like the large copper companies, gold mining firms have undergone far-reaching restructuring processes. Twenty years ago, gold production was largely a cottage industry or a by-product of copper mining. Today, technological advances have made it possible to substantially reduce costs and to mine low-grade deposits. As a result, major companies in the world market —such as Barrick Gold Corporation, Placer Dome and Anglo American— have launched several projects in the country. Gold production thus recorded an annual growth rate of 8.5%

Box II.1

BROKEN HILL PROPRIETARY (BHP): A GLOBALIZED MINING COMPANY?

Broken Hill Proprietary (BHP) is an Australian company with a long tradition in the mining business. Founded in 1885, it grew and diversified rapidly on the domestic market in silver, lead, zinc and iron mining and steel production. In the 1980s BHP embarked on a swiftly-paced international expansion drive with the development of the Ok Tedi copper mine in Papua New Guinea, the acquisition of the United States firm Utah International Inc., and explorations in Chile. In Chile, BHP discovered one of the world's largest deposits of copper ore, La Escondida, which became one of the company's most valuable assets.

In the 1990s, BHP acquired several companies, opened new mines, moved into the hydrocarbons business and increased its steel production capacity. In common with other mining companies, BHP stepped up its internationalization programme and established a series of alliances and joint ventures as mechanisms of financing for new projects in different parts of the world. In 1996, BHP acquired the United States firm Magma Copper Company of Tucson, with major copper deposits in the states of Arizona and Nevada, and in Peru. In combination with the copper mining operations already owned by the company, these ventures and acquisitions made BHP the second-largest producer of copper in the world after CODELCO. Today, this Australian company has three main areas of operation, with mining accounting for 41% of assets, followed by steel production (26%), hydrocarbons (25%); other smaller-scale activities account for 8%.

Almost 40% of BHP income comes from marketing mining products, led by coal (14%) and copper (12%). Steel production lies slightly behind (37%), followed by hydrocarbons (24%). BHP mining activities are currently quite diversified in terms of location and product: Australia (iron ore, silver, zinc and carbon), Brazil (iron ore), United States (coal and copper), Indonesia (coal), Chile (copper), Papua New Guinea (copper), Peru (copper) and Canada (diamonds). In terms of copper, BHP Chilean investments in La Escondida deposits are the company's main asset.

La Escondida was discovered in 1981 by a consortium led by BHP and entered the production phase at the end of 1990. As well as its economic importance, this project is particularly interesting as it was one of the first strategic alliances established for the purpose of working a new mining concern. BHP and the British firm Rio Tinto Zinc, which were former rivals, contributed most of the capital and their experience in the mining business; the Japanese consortium JECO Corporation contributed financial resources and a market for the ore; and the World Bank agency, International Finance Corporation (IFC), provided part of the financing at a time when such resources were very scarce in Latin America. Thus far, actual investment in the project stands at US$ 1.847 billion, of which BHP put up US$ 1.052 billion. State-of-the-art technology and a series of expansions have made it possible to increase production from 298,000 tons of copper in 1991 to 915,000 tons in 2000. La Escondida has thus become Chile's foremost deposit outstripping the CODELCO mines of Chuquicamata and El Teniente and accounts for 21% of domestic copper production. The mine's share of total domestic production is expected to increase to close to 25% in the coming years as a result of the new expansions. In December 2000 construction work began on Phase IV of the project, intended to maintain production levels as the grade of the ore in existing deposits declines in the next few years, and on a new concentrates treatment plant. An assessment is also under way of the Escondida Norte project, a deposit of copper reserves of over 500 million tons.

In summary, this Australian company has sought to lower costs and improve operational efficiency through a strategy of internationalization and forging alliances. Sales, acquisitions, alliances and financial restructuring are based on an assessment of the future competitiveness of the company's various assets at the aggregate level. In the next few years it is expected that the firm will continue to consolidate its operations at the world level and become firmly established as a major supplier of mining products.

Source: ECLAC, Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Broken Hill Proprietary (http://www.bhp.com).

Table II.6
MAIN WORLD COPPER FIRMS, 2000
(Percentages)

Firm	Origin	Mining activities: countries and minerals	Market share (%)
CODELCO	Chile	Chile: copper, gold	14.6
Broken Hill Proprietary (BHP)	Australia	United States: copper and coal. Australia: silver, zinc, coal and iron. Chile: copper. Brazil: iron ore. Papua New Guinea: copper. Peru: copper. Canada: diamonds	8.1
Phelps Dodgea	United States	United States: copper, molybdenum. Chile: copper. Peru: copper	7.8
Freeport McMoRan Copper & Gold Inc. (FCX)	United States	United States, Indonesia and Spain	6.4
Rio Tinto Zinc	United Kingdom	Australia: gold, coal, aluminium, diamonds, silver, iron. United States: copper, gold, coal, molybdenum, zinc, talc. Chile: copper and gold. Brazil: gold, nickel, iron. Indonesia: copper, gold. South Africa: copper. Portugal: copper and tin. Zimbabwe: gold. Papua New Guinea: gold	4.5

Source: CEPAL, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of annual reports of the companies.

[a] At the end of 1999, Phelps Dodge bought Cyprus Amax and, through this operation, became the world's third-ranking copper company.

over the 1990s to become the country's second metal product by export value.

World demand for copper is expected to increase over the next decade at an annual rate of around 3.4%, which could pave the way for an increase in production. In this scenario Chile figures as the main destination for forthcoming mining investments. Although no new projects on the scale of those of the first half of the 1990s are likely to materialize, some smaller ventures are under development and existing ones are being extended. El Tesoro mine, which is controlled by the Luksic group in association with Australian Mutual Provident (AMP), will become operational within the next few months, following an investment of US$ 298 million. Planned extensions include La Escondida (Phase IV, US$ 1.045 billion), Doña Inés de Collahuasi (US$ 800 million) and Los Pelambres, in addition to CODELCO plans for the expansion of Los Bronces (US$ 200 million), Radomiro Tomic (US$ 230 million) and El Teniente (US$ 1.1 billion). New projects being studied include Escondida Norte and Spence (US$ 1 billion). Gold mining ventures include Barrick Gold Corporation's Pascua mine (US$ 950 million) and Placer Dome's Cerro Casale project (US$ 1.43 billion). Once operational, these projects would make Chile one of the leading gold producers in the world. According to Chilean Mining Committee estimates, if these projects go through, the Chilean mining sector will receive some US$ 8.24 billion in FDI between 2001 and 2006.

In summary, recent investments in the mining sector have closely reflected world restructuring of the mining industry in general and copper in particular: internationalization, expansion and diversification of activities, cost reduction and formation of alliances to conduct new projects. These changes reflect the need of mining companies to develop strategies that enable them to survive and position themselves efficiently and competitively in a market that is dynamic, but risky and subject to marked cycles of expansion and contraction. Against this backdrop, Chile offers very good conditions in terms of deposits, regulatory framework, infrastructure and labour.

(b) Other natural resources: from commodities to products bearing certificates of origin

In the second half of the 1980s the Chilean economy received major capital flows in the form of FDI in other resource-based production sectors. This inflow coincided with strong growth in exports of forestry products, paper and pulp, and some agricultural (mainly fresh fruit) and fisheries products. In most cases, investment helped to fortify local groups and boost exports. In the 1990s, however, tougher competition on the world commodities markets and slimmer profit margins meant that some of the foreign investors that had been very active during the previous decade withdrew or relocated.

(i) The forestry sector: consolidation of local groups

Chile has enormous natural advantages in the forestry sector, and these conditions have been reflected in the rapid growth of the country's tree plantations.[24] The State played an active role in promoting investments, establishing firms and plantations, and encouraging the industrialization of the sector, which has been directed largely towards the production of pulp and paper. At the beginning of the 1970s various projects reached maturity, in particular several concerned with pulp production (Katz, Stumpo and Varela, 2000). From 1974 onward, in line with the new orientation of economic policy, the situation in the sector began to change. The existing State enterprises were transferred to the private sector and incentives were created to stimulate private investment in forestry. Decree Law 701 of 1974 was a key mechanism in the subsequent development of forestry activity in Chile.[25] From that time on, the private sector began to invest heavily and exports, particularly of pulp, enjoyed sustained growth. In fact, the ratio of output to external sales of pulp quickly rose above 65%, and now stands at above 80%. The forestry sector as a whole —pulp and paper, silviculture and wood products— have thus become the second most important source of exports for the Chilean economy, after mining.

The increase in investment came about in an international context marked by increasing competition and growing concentration of production. Seeking to benefit from economies of scale, optimize operations, streamline production structures and reduce costs, major companies increased the scale of their production activities and geographical diversification. It therefore became necessary to seek new terrain in which to invest and to take advantage of the special incentives offered by countries keen to develop their industries. Countries with low relative costs such as Chile, Brazil and South Africa therefore became attractive destinations for international market leaders, which led to an increase in their share of world production.[26]

During the second half of the 1980s, the sector recorded large volumes of FDI, much of which entered the country under the debt-equity conversion programme. In fact, the forestry sector was the main target of Chapter XIX transactions, accounting for almost 30% of the total. In most cases, foreign firms forged alliances with the main local groups in the sector (Matte and Angelini). The most significant investments included:

- A joint venture between the local firm Compañía Manufacturera de Papeles y Cartones S.A. (CMPC) of the Matte group and the United States firm Simpson Paper Company to develop an industrial complex known as Celulosa del Pacífico (CELPAC), which produced bleached pulp and derivatives.
- The purchase of Forestal e Industrial Santa Fe S.A. (an industrial complex producing bleached pulp and derivatives) and its raw materials supplier Forestal Colcura S.A., in addition to the development of a reforestation programme by a consortium led by the United Kingdom-Netherlands firm Royal Dutch-Shell and Citicorp and Scott Paper of the United States.
- The purchase of a majority share in Compañía de Petróleos de Chile S.A. (COPEC) from the local group Angelini by the New Zealand firm Carter Holt Harvey Co. These resources enabled COPEC to prepay its external borrowings, an operation which it had been unable to undertake after its bid to gain control of the country's largest private business complex (Rozas,

24 The most widely planted species in Chile is radiata pine, which grows at a yearly average rate of 20 to 25 m^3 per hectare, whereas in Sweden and the United States the rate is less than 7 m^3 (Stumpo, 1997).

25 Decree Law 701 absolutely prohibited the expropriation of forestry lands and afforded a 20-year subsidy of up to 75% of the cost of forestation and administration of plantations. It also granted exemptions and reductions on property taxes and on earnings from exploiting natural and artificial forests. In 1994, this legal framework was superseded by a package of laws which reduced the tax incentives and incorporated stronger environmental and social provisions.

26 A significant share of world production is concentrated in developed countries (United States, Japan, Germany, United Kingdom. France, Canada, Italy, Sweden and Finland) owing to the intensive processes of integration, productive specialization and technological innovation undergone by their industries (Bercovich and Katz, 1997).

1992). In mid-1987 forestry activity represented 56% of COPEC assets, headed by Compañía de Celulosa Arauco y Constitución S.A. (CELCO).

- The purchase of Forestal Bío Bío S.A. and Papeles y Bosques Bío Bío S.A. —which together produced 40% of the newsprint manufactured in the country at that time— by the New Zealand firm Fletcher Challenge.

Most of these investments were associated with the transfer of existing assets that had been rendered relatively non-convertible either by high levels of borrowing on the part of domestic firms or simply by the fact that the controlling local shareholders had gone bankrupt. These assets were largely acquired by transnational firms from the United States (Simpson Paper Co. and Scott Paper Co.) and New Zealand (Carter Hold Harvey and Fletcher Challenge) which had no existing operations in the country or by transnational banks that were carrying large sums of Chilean external debt (Rozas, 1992). The forestry sector thus channelled investments worth US$ 192 million through DL 600 between 1982 and 1989 and US$ 1.026 billion through Chapter XIX between 1985 and 1989.

The increase in installed capacity at world level, combined with a steep decline in demand from the countries of the Organisation for Economic Co-operation and Development (OECD), caused a sharp price fall which obliged companies to reduce costs and improve efficiency. In the first half of the 1990s investments in Chile were in the process of maturing, and this was reflected in an increase in output and exports. Between 1990 and 1996, output grew by 11.9% per year, while productivity recorded an increase of 7.9% (Katz, Stumpo and Varela, 2000). Sectoral growth displayed a shift towards specialization in pulp production and downstream integration in the forestry sector, reflecting firms' attempts to benefit from economies of integration (associated with natural advantages) and economies of scale (associated with the size of plants). Pulp exports thus grew from about US$ 400 million to almost US$ 2 billion between 1985 and 2000, coming to account for 11% of the country's external sales.

In response to these trends, transnational corporations began to withdraw from the Chilean forestry industry. Firstly, the Matte group bought the assets of Royal Dutch-Shell (Forestal e Industrial Santa Fe), and Simpson Paper (Celulosa del Pacífico) sold its assets to the Matte group.[27] Later, the alliance between Carter Holt Harvey and COPEC was dissolved, and the Angelini group took control of the assets held by the New Zealand firm.[28] The main alliances between domestic and foreign firms thus came to an end, FDI flows to the sector stagnated and local groups positioned themselves as the main agents of production and export. Currently, these local groups are embarking upon strategies involving the international expansion of production that will allow them to take advantage of subsidies and lower land prices to develop new plantations in neighbouring countries.

In summary, the negligible presence of foreign capital in the Chilean forestry sector can be attributed to a variety of factors. Firstly, the production base of the sector was structured several decades ago, and private local groups were therefore able to position themselves better than in other sectors and maintain their market share right up to the time when their investments matured at the end of the 1980s. The Matte and Angelini groups were large property holders in the sector and their firms displayed positive levels of growth, output and export competitiveness, especially in pulp. Given these conditions, the best alternative available to foreign firms was to associate with local groups, which were already well run, were integrated into local input networks and had developed competitive exports. Secondly, competition on commodities markets became tougher in the 1990s, with a significant decrease in profits, and this prompted the withdrawal of the foreign investors that owned stakes in some of the sector's leading companies.

(ii) The fisheries sector: from yellow jack to salmon

Chile has over 5,000 kilometres of coastline, which has enabled it to become one of the largest fish producers in the world. In the mid-1990s, Chile ranked third in capture fishery, after China and Peru, and ahead of Japan, the United States and Russia. The country was also the world's second largest exporter of fishmeal, after Peru, outstripping the export figures of Denmark and Iceland (FAO, 2000; Kouzmine, 1999).

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27 In September 1997, CMPC bought 80% of Forestal e Industrial Santa Fe from Royal Dutch-Shell, thus gaining 100% control of the short-fibre pulp plant. In December of the same year, CMPC acquired the stake of Simpson Paper and other minority shareholders to own Celulosa del Pacífico and Forestal Angol outright, in an operation which represented a total investment of US$ 476 million. After these purchases, CMPC embarked upon a process of reorganization which included merging and transferring some assets.

28 In December 1999 the Angelini group gained control of COPEC after purchasing Carter Holt Harvey's stake in the company for some US$ 1.233 billion.

Capture activities with a low level of added value and activities associated with the production and export of fishmeal have historically attracted little foreign capital. Instead, as in the forestry sector, some foreign agents have used the debt conversion mechanism to invest in ownership stakes in the country's largest fisheries, usually in partnership with local groups such as Angelini. Foreign investors gradually withdrew from the sector's more traditional segments, however, as stocks declined steadily and commodity prices trended downward (affecting fishmeal), while the existing level of regulation proved inadequate for managing the resource and some firms borrowed to excess. More recently, products with higher added value, such as turbot and deep-sea cod, have begun to attract foreign investment as trends in world markets have become more promising. These activities are still incipient, however.

The salmon industry, on the other hand, has seen spectacular growth. This is attributable to the country's enormous natural advantages and the lower production costs associated with labour, infrastructure and feeding, in addition to effective start-up support from State agencies.[29] The Association of Salmon and Trout Producers has also been actively involved throughout the process, initially through a policy directed at positioning Chilean salmon on international markets and later with the establishment of the Salmon Technological Institute (Intesal), an agency which has worked to improve production techniques, quality control and disease management. The salmon industry has invested almost US$ 2.5 billion in building processing plants and purchasing machinery. Today, salmon is the leading segment of the fisheries industry and accounts for 50% of total fisheries exports (see figure II.5). From 1.8% of the country's total external sales in 1991, salmon farming grew to account for 5.3% in 2000, or some US$ 950 million. Chile has thus become the second largest producer in the world and, together with Norway (the world's main exporter), represents 68% of total salmon sales on the international market.

It has not been entirely plain sailing for the Chilean salmon industry, however. United States producers filed a complaint regarding dumping and subsidization in 1997. In July 1998 it was successfully demonstrated that the activity was not subsidized. Thanks to this preliminary ruling by the Department of Commerce, only two Chilean firms had to pay tariff surcharges to place their products on the United States market, and almost 70% of Chilean fresh salmon output destined for the United States market is not subject to tariff surcharges.

Rapidly increasing demand has encouraged the world's largest salmon firms —from Norway and the United States— to internationalize their operations and seek new locations for production and farming. Norwegian firms are also obliged to expand overseas because of production quotas at home. Chile's geographical conditions (fjords, canals, islands and lakes), natural advantages (climate and water temperature) and economic situation (availability of food and labour) have brought the country to the attention of several of these companies.

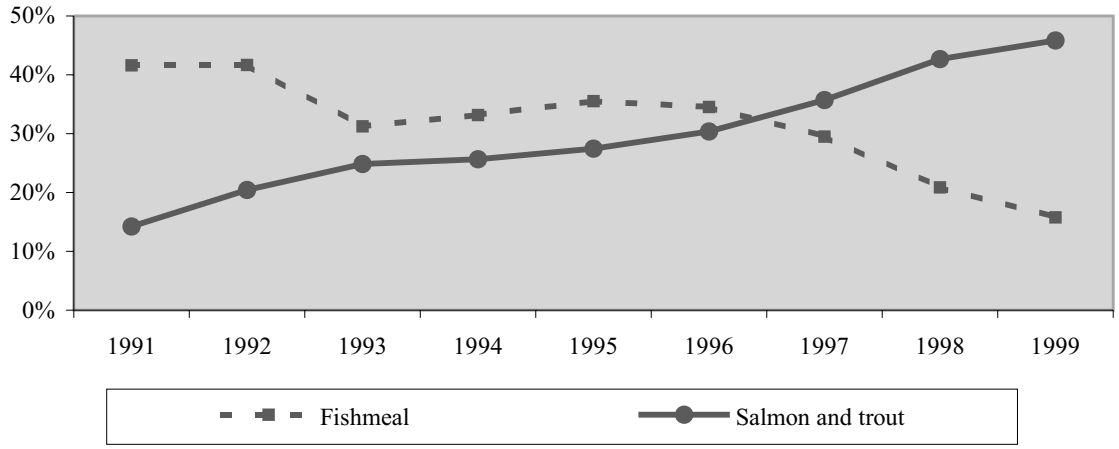
Fish farming in Chile operates on the basis of aquaculture concessions granted by the State, and the procedure is rather complicated and cumbersome. For this reason, the great majority of foreign investors seeking to become established in the country have purchased existing firms. Within a relatively short period, companies from Norway (Fjörd Seafood, Ewos, Stolt Seafann), the Netherlands (Nutreco) and Canada (B.C. Packard) acquired some of Chile's largest salmon producers. Today, foreign firms account for almost 40% of output (*Estrategia*, 23 October 2000, p. 13). The Netherlands firm Nutreco has become the country's main exporter (US$ 86.8 million).[30] Nutreco also owns Trow Chile, which has won almost 40% of the salmon feed market (see box II.2). In late 2000, Fjörd Seafood, one of the world's largest salmon producers, acquired Salmones Americanos and Salmones Tecmar[31] for US$ 50 and US$ 90 million, respectively. These acquisitions rapidly moved this Norwegian company into second place in terms of exports. By combining the capacity of these acquisitions, Fjörd Seafood plans to increase its output to some 33,000 tons in 2001 and thus account for 10% of world production within a few years. Lastly, Ewos, also from Norway, bought Mainstream (the second-largest salmon exporter in Chile), in keeping with the shift towards the globalization of aquaculture

29 Although there was no formal policy supporting the sector, Fundación Chile was responsible for a major milestone in the development of salmon farming, with the introduction of intensive farming technology. Fundación Chile also established the company Antártica, which was a pioneer in Chilean salmon farming and very successful. In fact, in 1998 the company became the first ever to produce over 1,000 tons per year. Later, this firm was acquired by Nippon Suissan Kaisha of Japan, but its greatest impact was to have set a successful example in the private sector for the establishment of similar enterprises.

30 On 1 July 2000 Nutreco merged with Mares Australes and Marine Harvey. The new enterprise retained the name of Marine Harvey, which enjoyed a better international position.

31 Salmones Tecmar had also acquired Salmones Quellón and stakes in Salmones Huillinco (37%) and Salmones Maintec (50%).

Figure II.5
CHILE: COMPOSITION OF FISHERIES EXPORTS, 1991-1999
(Percentages)



Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Central Bank of Chile.

activities, in which Chile is an increasingly important strategic location (see table II.7).

Bearing in mind that world demand is likely to expand significantly in the next few years, the Chilean salmon industry still has enormous potential to develop. Chilean salmon exports could be worth between US$ 2.5 and US$ 3 billion by 2010, based on estimated future investments of US$ 1.5 billion, mainly in the country's Eleventh Region. This process would also lead to increased market concentration on the back of new foreign investment in the sector.

(iii) Agricultural sector: fruit and wine for the northern hemisphere

Chile has been one of the most successful developing nations in the business of exporting fresh fruit. In addition to the fact that the country has enormous natural competitive advantages (climate, soil quality and counterseasonality in the markets of developed economies), the State became actively involved in promoting the industry early on. A fruit-cultivation development plan established in the 1960s resulted in major technological advances in the sector. Later, the market reforms of the 1970s boosted the country's competitive advantages, which made it possible to place fruit production on the world markets. This trend was a reflection of the consolidation of global networks on the part of the sector's main transnational corporations, which was accelerated by changes in eating habits and the socioeconomic structure in industrialized countries (the income-elasticity of demand for fruit exceeds unity) and by technological advances, mainly with regard to refrigeration chains, which permitted long-distance transport of perishable fresh produce.

Fruit exports increased from US$ 30 million to almost US$ 1.4 billion between 1970 and 1999. Fruit-growing now represents close to 8.5% of the country's total external sales. The sector began to grow particularly vigorously in the second half of the 1980s, aided by a series of devaluations of the Chilean peso in combination with a variety of tax incentives.[32] Chile has thus become the leading exporter of grapes and apples and the second-largest exporter of pears and kiwi in the southern hemisphere. At the world level, Chile ranks second in exports of grapes, third in kiwi, fourth in apples and fifth in peaches. Market diversification has also been a key to the success of fresh fruit exports. Chilean

32 Export promotion incentives included refunds of value added tax (VAT) on products sold abroad.

Box II.2
NUTRECO: FOOD FOR FISH? FISH FOR FOOD?

Nutreco is a transnational corporation based in the Netherlands and a leader in the aquaculture and farming industries. The corporation's aquaculture activities consist of producing fish food and breeding, raising, processing and marketing salmon. Its agricultural activities involve the production of animal feedstuffs, stock raising and meat processing. Nutreco has recently pursued an active strategy of international expansion, largely through acquisitions. Today the corporation owns some 80 production and processing plants in 18 countries, and its market presence is highly diversified. During the 1990s Nutreco rapidly became the leading company in the sector when it acquired the British firm Marine Harvest and -jointly with Norsk Hydro AS of Norway- Hydro Seafood, also of Norway, the world's largest salmon producer, with a 12% share of the world market. Nutreco has also deployed major efforts in product innovation and cost control, seeking to optimize synergy between firms and take advantage of economies of scale.

In 1988, Nutreco began its activities in Chile by forming an alliance with a local animal feed producer, and then bought Pesquera Mares Australes and created the local subsidiary Trow Chile, which specialized in fish food. Mares Australes is one of the country's largest salmon enterprises today, with activities in the Tenth and Eleventh Regions, while Trow Chile is one of the largest players in the fish food market. Trow Chile owns the world's largest fish food processing plant, which is located in Osorno, and other plants strategically located close to stock-raising areas. The subsidiary has developed new products for stock raising and has successfully reduced costs and improved the final quality control of its products. The firm boosted its growth in the fish food industry by purchasing Biomaster, a fish food subsidiary of Industria Azucarera Nacional S.A. (IANSA). Meanwhile, Nutreco increased its stakes in the Chilean salmon market through the acquisition of Marine Harvest. The corporation has production activities in Chile and Canada, which has enabled it to take advantage of a rapidly expanding North American market. Through Pesquera Mares Australes and Marine Harvest, Nutreco has become the leading salmon exporter in Chile.

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Marine Harvest (http://www.marine-harvest.com) and Nutreco (http://www.nutreco.com).

produce is sold in three major markets: North America (United States and Canada), Europe and Latin America, which each account for roughly a third of exports.

Transnational corporations have been very important in this process, particularly since this is such a strongly integrated and globalized market. The chain from tree to consumer is complex and not necessarily linked by direct ownership, but by a series of contractual agreements[33] (Gwynne, 1998; Murray, 1999). In Chile, the large export firms —mostly foreign-owned— were instrumental in coordinating small producers and in beginning to position and market fruit products abroad. Firstly, the exporters provided the services to prepare, pack and store the fruit. Secondly, they assembled large enough quantities to justify investment in services, obtain economies of scale in transport and gain the power to negotiate prices in the destination countries. These export companies were also fundamental in identifying, adapting and transferring technology to the fruit sector. In the mid-1980s foreign firms started up their operations in Chile under the debt conversion mechanism (Chapter XIX) and invested heavily to promote the activity. Since then, with the exception of the local firm David Del Curto,[34] transnational corporations have spearheaded

33 These agreements include the informal contract between consumers and their preferred supermarket chain; the more formal contracts between supermarket chains, wholesalers and importers and different types of fruit export companies; and contracts between export firms and producers (Murray, 1999).

34 This company was a pioneer in the fresh fruit export industry. It was founded in the 1950s by the Chilean businessman David Del Curto and is now Chile’s leading fruit exporter, with over 13 million crates per year.

Table II.7
CHILE: MAIN SALMON FIRMS
(Tons and millions of dollars)

Firm	Country of origin	Assets in Chile	Exports Output (tons)	1999 (millions of dollars)	Export ranking[a]
Nutreco	Netherlands	Pesquera Mares Australes, Trow Chile and Marine Harvey	16 000	86.8	1
Fjörd Seafood ASA	Norway	Salmones Americanos and Salmones Tecmar Ltda.	12,000	46.2	2
Ewos	Norway	Mainstream and Ewos Chile	9,000	43.8	3

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Chilean Association of Salmon and Trout Producers.

[a] Ranking of salmon exports by Chilean firms, by millions of dollars at December 1999. Corresponds to the sum of the Chilean firms' exports.

fresh fruit export activities. In the 1999-2000 season the four largest foreign companies accounted for 27% of the sector's exports (see table II.8).

The success of agricultural commodity exporters has extended to some vegetables and agribusiness activities. The most striking example is the wine industry. The exceptional features of the Chilean climate and soil create microclimates in which the combination of light, temperature and humidity is perfect for growing quality grapes. Excellent phytosanitary conditions and the natural barriers provided by the Andes mountain range, the desert and the sea keep the country free of pests and plagues (Suárez and Vergara, 1996). In addition, Chile boasts extensive plantations of fine strains grown from vines introduced over the last 100 years, which has helped it to project an image of a "wine-growing country".

As restrictions on the planting of new vineyards were lifted in the late 1970s, output began to expand and the first export initiatives were launched, encouraging potential partnerships with foreign firms. The explosive growth of plantations, however, quickly exhausted the domestic market, and the sector lapsed into a severe crisis. In common with many other sectors of the Chilean economy, in the mid-1980s the wine-growing industry began to restructure and seek new strategies, of which venturing onto the external market was a central element. The major producers began to develop a new type of wine (fruity, young and aromatic) which was more to the tastes of consumers in the North American and European markets[35] (Del Pozo, 1999; Silva, 1999). A new pattern of production, ageing and bottling thus began to take shape in the wine industry, which led to a broad plan of investment in machinery, equipment and technology. The new vineyards emerging in this period sought to venture directly onto external markets, and were known as "emerging" or "boutique" vineyards.

A series of changes in international markets also helped to restructure the Chilean wine industry. Firstly, wine consumption increased sharply in the United States, where changes in the industry afforded more importance to the process and variety of wine than to its country of origin. Until that time, the market was accustomed to wines from specific areas of Europe (France, Spain and Italy), but these changes provided an opportunity for other countries, such as Chile, to enter the market. Secondly, most of the European countries were gripped by recession in the mid-1980s, which opened up an opportunity for Chilean wines with their advantageous price-quality ratio. Thirdly, as new producers, such as Australia, entered the international market, they paved the way for those that came behind.

35 As in the rest of the world, common strains have been uprooted and replaced with fine vines. The strains that have increased most in Chile are pinot noir, cabernet sauvignon and merlot.

Table II.8
CHILE: MAIN FOREIGN FRESH FRUIT EXPORTING FIRMS, 1999-2000 SEASON
(Thousands of crates and millions of dollars)

Firm	Country of origin	Assets in Chile	Output (thousands of crates)	Exports in 1999 (millions of dollars)	Export ranking
Dole Food Company Inc.	United States	Dole Chile S.A.	13 049	137	2
De Nadai Group (DNG)	Italy	Exportador Unifrutti Traders Limitada	10 599	113	3
Del Monte Fresh Produce Company	United States	Del Monte Fresh Produce Chile SA[a]	9 641	84	4
Chiquita Frupac Inc.	United States	Chiquita Enza Chile Ltda.	7 281	68	5
National Total			**149 795**	**1 400**	

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Chilean Exporters Association and the Chilean Export Promotion Bureau (Prochile).

[a] In January 1998, Del Monte Fresh Produce Co. acquired 100% of the Saudi Arabian-owned firm United Trading Company (UTC) for US$ 269 million.

Lastly, greater awareness of the curative and preventive properties of wines in general and Chilean wine, in particular, helped to improve its image and encourage consumers to favour it.

Chilean wine exports to North America grew steadily between 1985 and 1989 and increased even more markedly in the 1990s. Then Chilean wines made a successful entry into the markets of Northern Europe and thus gained access to the European market, especially the United Kingdom, which quickly became one of the main export destinations for Chilean wines. Asian markets have been the most recent additions. In general, Chilean wines have pursued a strategy of low relative price and good price-quality ratio, aiming gradually for higher quality (Del Pozo, 1999; Suárez and Vergara, 1996; Andrade, 1993). Wine exports increased from US$ 9 million in 1984 to US$ 525 million in 1999, with an average annual growth rate of 32.2%. The proportion of domestic output destined for external markets grew from 2% to 54% over the same period. Wine exports thus increased their share of the external sales of the agricultural sector from 6.2% in 1992 to 16.9% in 1999. In 2000, wine became Chile's sixth largest export product (see table II.3).

In keeping with this trend, Chile has become an attractive destination for large, world-class wine companies seeking to expand their activities, in particular in the production of premium and fine wines. These wineries —which are generally small or medium-sized enterprises— do not seek to compete locally with domestic firms. Instead, their strategy is to produce quality wines, independently or in partnership with local wineries, and position themselves on external markets where they have already secured distribution channels and won prestige (Agosin, Pastén and Vergara, 2000).

The first foreign investors arrived in the Chilean wine sector in the late 1970s. One of the most notable of these early arrivals was Miguel Torres, a Spanish family business with a renowned international tradition. This development not only brought new technological advances to the production process, but also had a demonstration effect on other companies which invested in the country later. In the 1990s French growers with long-standing wine-making traditions began to form partnerships with local producers. Les Domaines Baron Philippe de Rothschild-Lafite S.A. formed the vineyard Los Vascos in partnership with the Eyzaguirre-Echeñique family, and Marnier Lapostolle created a partnership with the Rabat family to establish Casa Lapostolle. Similarly, some large United States wine-growing firms conducted new projects in the

country, such as Kendall Jackson, which created La Calina vineyard, and Canandaigua Bands, which acquired Viña Veramonte. One interesting case is the Australian firm Mildara Blass Wines Inc. —which was acquired by the beer group Fosters— and Viña Santa Carolina, which established the wine brand Dallas-Conté as a joint venture on international markets. The Australian firm contributed technology and distribution channels in the United States and the United Kingdom, while Viña Santa Carolina was responsible for production.

In general these partnerships have proven attractive for local businesses because they offer access to financing, technology and know-how for fine wine production in addition to the distribution channels and prestige of their foreign partners. This combination has made it possible for Chilean producers to obtain better prices on external markets. The local and international prospects for the wine industry are thus excellent, and both exports and investments are likely to continue growing. Output should increase by 40% by 2005, and the value of exports is expected to exceed US$ 1 billion (70% of this figure corresponds to red wine), which will bring additional infrastructure investments of US$ 250 million in the next three years. Increased wine production will also require a stronger drive to position wines on international markets, entailing investments in advertising of around US$ 178 million, rising to US$ 223 million by 2005 (*Estrategia*, 10 July 2000, p. 20).

In summary, the wine industry has passed through two distinct phases: investment in technology between 1981 and 1986, and export development from 1987 onward. Initially, Chilean wine featured a good price-quality ratio and entered markets at low price levels while diversifying its international destinations. Both quality and price have increased as the firms' strategies have gradually changed from market entry to market positioning, with the production of premium and ultra-premium wines. Foreign firms have played an especially active role in the latter stage.

2. Access to services markets: Chile as a stepping stone to Latin America

In the second half of the 1990s, the trend described above overlapped with a completely new phenomenon in the Chilean economy. At the international level, a new breed of firms were embarking on active strategies of mergers and acquisitions to consolidate their global, regional and local positions. This trend was particularly strong in the services sector, in the wake of market opening, liberalization and changing competitive conditions in local markets. These corporations thus began to buy leading firms on different domestic markets, creating an international network that was increasingly global in nature, in terms of both geographical coverage and the range of services offered. This trend was particularly marked in Chile, especially in the sectors of electrical energy, telecommunications, drinking water, sanitation and financial services (see table II.9).

Chilean firms have been identified as an excellent opportunity by transnational service corporations seeking to position themselves as global players. First, Chilean firms are already accustomed to operating in a competitive environment, as a result of the early reforms implemented by the authorities at the beginning of the 1970s. Second, the majority of the leading firms in these sectors are financially solvent and have access to international capital markets. Third, they have acquired valuable know-how and experience in their own spheres of operation. Fourth —and perhaps most significantly— they have conducted an ambitious strategy of international expansion in Latin America by using their experience in the industry to acquire stakes in recently privatized companies.

The transfer of privately-owned local groups —and in some cases public-sector companies— to transnational corporations has resulted in enormous FDI inflows (see figure II.1) and is beginning to shape a new corporate panorama in Chile (see figure II.2). Between 1995 and 2000 foreign companies disbursed over US$ 16.3 billion in acquisitions in the Chilean services sector (see table II.9). Sectors which were once dominated by local business owners are now largely controlled by foreign investors, and through these acquisitions, emerging transnational service corporations are consolidating their positions in Latin America.

(a) Electricity transnationals: from Chile to the rest of the region

The last two decades have been marked by far-reaching changes in the Chilean electricity sector which have culminated in the transfer of the sector's

Table II.9
CHILE: LARGEST SERVICES ACQUISITIONS, 1995-2000
(Percentages and millions of dollars)

Date	Firm	Sector	Buyer	Origin	Percentage	Amount
Dec-97 Apr-99	Enersis S.A.	Electricity	Endesa España[a]	Spain	64.0	2 629
May-99	Empresa Nacional de Electricity S.A. (ENDESA)	Electricity	Enersis	Spain	34.7	2 146
Dec-00	Gener S.A.	Electricity	The AES Corp.	United States	95.6	1 300
Oct-00	Compañía Nacional de Transmisión Eléctrica S.A. (TRANSELEC S.A.)	Electricity	HydroQuebec	Canada	100.0	1 076
Apr-99 Jan-00	Chilquinta Energía S.A. (Enerquinta)	Electricity	Sempra Energy (50%) / Public Services Enterprise Group (PSEG) (50%)	United States	100.0	878
Jul-97 Nov-99	Empresa Metropolitana de Electricidad (EMEL)	Electricity	Pennsylvannia Power and Light (PP&L)	United States	95.0	287
Aug-00	Empresa Eléctrica Colbún	Electricity	Tractebel S.A.	Belgium	26.0	…
Dec-99 Dec-00	Empresa Nacional de Telecomuninications S.A. (ENTEL)	Telecommunications	Telecom Italia	Italy	38.3	1 026
Jun-00	Smartcom PCS	Telecommunications	Endesa Spain	Spain	100.0	300
Apr-99	VTR Global Com S.A. (ex- VTR Cablexpress S.A.)	Telecommunications	United Global Com. Inc.	United States	60	258
Dec-00	ENTEL PCS	Telecommunications	ENTEL[b]	Italy	25.0	125
Oct-99	ENTEL Telefonía Personal	Telecommunications	BellSouth Corp.	United States	100.0	90
May-00	Telefónica Manquehue S.A.	Telecommunications	National Grid Group Plc[c]	United Kingdom	30.0	80
Aug-99 Sep-99	Empresa Metropolitana de Obras Sanitarias (EMOS)	Sanitation	Aguas de Barcelona (25.5%) / Suez Lyonnaise des Eaux (25.5%)	Spain / France	51.2	1 103
Oct-00	Empresa de Servicios Sanitarios del Bío-Bío (ESSBIO)	Sanitation	Thames Water	United Kingdom	42.0	282
Jul-00	Aguas Cordillera	Sanitation	EMOS	Spain / Francia	100.0	193
Dec-98 Jul-00	Empresa Sanitaria de Valparaíso (ESVAL)	Sanitation	Anglian Water Plc[d]	United Kingdom	40.0	138
Nov-99	Empresa de Servicios Sanitarios del Libertador (ESSEL)	Sanitation	Thames Water Plc (50%) / Eletricidade de Portugal (50%)	United Kingdom / Portugal	51.0	136
Jul-99	Empresa de Servicios Sanitarios de Los Lagos (ESSAL)	Sanitation	Iberdrola	Spain	51.0	94

Table II.9 (concluded)

Date	Firm	Sector	Buyer	Origin	Percentage	Amount
Jan-97	Banco Santiago	Banking	Banco O'Higgins	Spain	100.0	973[e]
Jul-97	Banco Osorno y la Unión	Banking	Banco Santander	Spain	100.0	881[e]
Apr-00	Banco Santiago	Banking	Banco Santander Central Hispano (BSCH)	Spain	21.8	600[f]
Jul-96 Jun-97	Banco Santander	Banking	Banco Santander Central Hispano (BSCH)	Spain	28.2	545
Oct-98	BBVA Banco Bhif	Banking	Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	63.0	374
Ene-91 Nov-00	Banco Sud Americano	Banking	Bank of Nova Scotia	Canada	99.2	...
May-99	AFP Provida	Finance	Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	41.0	250
Dic-97	Cruz Blanca Seguros de Vida	Finance	ING Group NV	Netherlands	100.0	120
May-98	AFP Summa	Finance	Banco Santander Central Hispano (BSCH)	Spain	100.0	105
Jun-97 Mar-98	Supermercados Santa Isabel	Commerce	Royal Ahold	Netherlands	74.0	353

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management.

[a] In late 1997, Endesa España acquired a 29% stake in Enersis for US$ 1.179 billion. Later, in March 1999, the Spanish firm made a public share offer for another 23% of the Enersis stock, paying out US$ 1.45 billion. This second operation gave Endesa España 64% of the stock and management control of Enersis.

[b] ENTEL acquired the 25% interest that had been owned by the United States firm Motorola in the mobile telephony subsidiary ENTEL PCS.

[c] In May 2000, seeking to direct the firm towards supplying broadband service, Telefónica Manquehue formed a partnership with the British firm National Grid. At the same time as National Grid was entering the Chilean telecommunications market, the company announced a project to build a broadband network using the infrastructure of Gas Andes to cross the Andes mountain range from Argentina. The firm Southern Cone was created to build and operate the network, which will run for a total of 4,300 kilometres between Argentina and Chile. National Grid is the majority shareholder in Telefónica Manquehue, with a 30% stake, while Metrogas holds 25.6%, the Rabat family 21.2%, Williams Co. 16.4% and XyCom investment fund 6.8%. National Grid owns 50% of Southern Cone, while 30.1% is held by Telefónica Manquehue and 19.9% by Willliams Co.

[d] In December 1998, the consortium Aguas Puerto -Enersis (72%) and Anglian Water Plc (28%)- acquired 40% of ESVAL. In July 2000, Anglian Water bought the Enersis share in Aguas Puerto for US$ 137 million.

[e] Corresponds to the valuation of the merger of the two banking institutions.

[f] Banco Central Hispano consolidated its presence in Latin America with a stake in the firm O'Higgins Central Hispano (OHCH). Beginning in 1996, OHCH conducted activities in Argentina, Chile, Paraguay and Peru, coordinating and sharing management with the Chilean Luksic group. On 12 February 1999, in the wake of its merger with Banco Santander, BCH indicated its desire to terminate its partnership with the Luksic group in the OHCH venture. BCH valued the partnership at US$ 1.2 billion, of which US$ 600 million would correspond to the Spanish institution. The Chilean group had two months to reach a decision and finally accepted US$ 600 million for 50% of OHCH, which included 42.5% of Banco de Santiago.

main assets to foreign investors. The Chilean electricity firms, which in the early 1980s operated strictly within Chile and were owned and managed almost entirely by the public sector, are now strongly internationalized throughout Latin America and owned largely by major transnational service corporations. The process by which this transformation came about was not linear, however, but occurred in several stages.

- With the first privatizations in 1980, the State transferred the ownership and management of the main electricity companies to local private investors in a process which was completed during the first half of the 1990s.
- Once in private hands, the main electricity companies grew rapidly and diversified widely at the national level. There followed an active regional expansion effort which significantly increased the geographical coverage of these firms.
- In the late 1990s, Chile's leading electricity firms and conglomerates (Enersis, Endesa and Gener) began to encounter tough competition from extraregional transnational corporations. They were acquired in the period 1999-2000, giving rise to the current situation in which the sector is largely owned by major foreign players.

The first Chilean electricity privatizations occurred early in comparison with the rest of Latin America, with the public tender of two small firms in the southern part of the country in 1980 —Sociedad Austral de Electricidad (Satel) and Empresa Eléctrica de la Frontera (Fondel). In the second half of the 1980s this process was consolidated with the privatization of the country's two largest electricity companies —Empresa Nacional de Electricidad S.A. (Endesa) and Chilectra. By the late 1980s most of Chile's electricity generation, transmission and distribution facilities were owned by local private investors. In theory, the privatization process was intended to generate competition in the industry and avoid concentration of ownership. The large companies were therefore divided into a series of subsidiaries and privatized through the sale of shares to institutional investors, public tenders of non-controlling packages and direct sales of small share packages at discounted prices to company employees, members of the armed forces, civil servants in general and small local investors. These mechanisms and the subsequent regulatory system did not operate as envisaged, however, and some shareholders were able to make successive purchases to secure much larger stakes in the ownership and management of the main firms. For example, in the mid-1980s Enersis controlled the boards of Endesa and Chilectra, which gave it control over a substantial portion of Chilean generation and transmission (Moguillansky, 1997).

The second stage of the transformation of the industry took place once the Chilean electricity companies were consolidated in local private hands. This stage was associated with electricity privatizations in other countries of the region, a process which lasted until the mid-1990s. In the post-privatization period, Chilean electricity companies embarked on plans to modernize operations, optimize resources and establish a corporate scheme in which parent companies invested through various forms of financing in a set of related subsidiaries.[36] In this period the Chilean firms undertook an aggressive strategy of expansion and internationalization as reform processes unfolded throughout Latin America. Despite increasing competition from transnational corporations from outside the region during this process, Chilean companies such as Enersis —directly and through its share in Endesa— and Chilgener (now known as Gener) were able to establish a solid position in the region. In combination with their knowledge of the region, these firms' profits, their financial capacity and the experience they had gained in Chile's private sector gave them powerful advantages in the early phases of privatization in the rest of Latin America. The main Chilean electricity companies were thus major players in the electricity privatizations of several countries in the Southern Cone and Central America and came to control major assets in Argentina, Brazil, Colombia and Peru by the end of the 1990s (see table II.10).

In the second half of the 1990s, the conditions which had made this expansion possible began to change rapidly. On the one hand, Brazil's electricity privatization offered substantially larger assets —and therefore required much greater resources to continue the strategy of regional expansion— than previous privatizations in other countries. On the other, major electricity companies from outside the region, which had a much larger financial capacity than the Chilean firms, began to show a growing interest in Latin America. These extraregional firms included Endesa España, which already had assets in Argentina, Dominican Republic, Peru and Venezuela in the mid-1990s, and AES Corporation of the United States,

36 Forms of financing included companies' own resources, bond and share issues on the domestic market, borrowing from domestic and foreign banks, and issues of bonds and ADRs on international markets.

Table II.10
ENERSIS AND GENER: MAIN ASSETS IN LATIN AMERICA

	ENERSIS	GENER
Argentina	Empresa Distribuidora Sur, EDESUR (51.5%) Central Costanera S.A. (27%) Hidroeléctrica el Chocón S.A. (28.5%) Termoeléctrica Buenos Aires S.A. (31.9%) DIPREL Argentina (100%)	Central Puerto S.A. (64%) Gener Argentina (100%) Agua Negra S.A. (34%) Energía San Juan, EDESSA (90%)
Brazil	Companhia de Eletricidade do Rio de Janeiro, CERJ (40%) Companhia Energética do Ceará, COELCE (21.5%) Centrais Elétricas Cachoeira Dourada S.A. (54.8%) DIPREL Brasil (100%)	
Chile	Empresa Nacional de Electricidad S.A., ENDESA (60%) Chilectra S.A. (72.8%) Compañía Eléctrica Río Maipo S.A. (83.8%) Ingenieria e Inmobiliaria Manso de Velasco S.A. (100%) Distribuidora de Productos Eléctricos (DIPREL) (100%) Synapsis (100%) Infraestructura 2000 (36%)	Gasoducto Gas Andes (15%) Puerto Ventanas (60.8%) Sociedad Eléctrica Santiago
Colombia	Codensa (20%) Enersis Energía de Colombia (75%) Empresa Generadora Eléctrica S.A., EMGESA (15.4%) Empresa de Energía de Bogotá, EEB (1.7%) Central Hidroeléctrica Betania S.A.(51.4%) DIPREL Colombia (100%) ISAGEN (0.1%) Gas Natural ESP (0.5%)	Carbones Colombianos del Cerrejón (60%) Compañía de Carbones Cesar (100%)
Peru	Empresa de Distribución Eléctrica de Lima Norte, EDELNOR (23.1%) Empresa de Generación Eléctrica de Lima, EDEGEL (23%) DIPREL Perú (100%)	
Dominican Republic		Compañía Generadora Itabo S.A. (25%)

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management.

which was to expand very rapidly in the region in the second half of the decade (see box I.2).

Intent on expanding further into Latin America, Endesa España sought a strategic alliance with an operator that was more knowledgeable about the region. This coincided with the need of Enersis for a strategic ally from outside the region to provide financing to continue its process of internationalization. First, the two companies participated jointly in privatizations in Brazil and Peru —Companhia de Eletricidade do Rio de Janeiro (CERJ) and Empresa de Distribución Eléctrica de Lima Norte S.A. (Edelnor). Then, in 1997, once Endesa España had acquired major stakes in the firms controlled by Enersis, the two firms signed a strategic agreement to seek out new business opportunities in the region (ECLAC, 2000a, chapter III). The alliance was cemented in late 1997 when Endesa España acquired a minority stake in Enersis, and jointly the two firms went on to acquire large assets in Brazil and Colombia. Difficulties in the relationship with the Enersis management caused Endesa España to reconsider its strategy, however (Calderón, 1999). The Spanish firm began to gradually increase its stake in the Chilean group in a process that culminated when Endesa España launched a public share offer to acquire a further 32% of the Enersis stock in March 1999. This operation involved an outlay of US$ 1.45 billion and gave Endesa España 64% of the ownership and management control. This operation was followed by another tender offer for Endesa Chile, for US$ 2.146 billion, as a result of which Endesa España

gained control over the leading Chilean generator (see table II.9).

A very similar sequence of events took place with different players a year and a half later in connection with Gener. Recognizing the need for an extraregional partner to help it survive in highly competitive regional markets, in late October 2000 the Chilean electricity conglomerate announced a strategic alliance with the French petroleum company TotalFinaElf. The terms of the operation were immediately rejected by some members of the Gener board, however, and in early November AES Corporation of the United States launched a public share offer for 80% of the stock of the Chilean conglomerate. TotalFinaElf withdrew from the alliance with Gener and instead negotiated an agreement with AES Corporation. Under the terms of this agreement, TotalFinaElf would not interfere with the public tender and, in return, the United States firm agreed to sell TotalFinaElf its Gener assets in Argentina in the event of a successful tender (see table II.10). The Gener shareholders approved the offer from AES Corporation on 13 December 2000, and a few days before the end of the year the United States firm acquired a stake of over 95.6% in Gener with an outlay of over US$ 1.3 billion (see box I.2 and table II.9). In late January 2001, AES launched a second public tender for the remaining 4.4%, in compliance with new legislation on public share offers.

Despite their magnitude, these operations do not account for all the recent changes in the electricity sector. Although Endesa España and AES Corporation are the main actors in this process and the current leaders of the Chilean electricity sector, other transnational corporations have also gained significant shares in some segments. These include the United States firm Pennsylvania Power and Light (PP&L), which controls over 95% of Empresa Metropolitana de Electricidad (Emel), the country's third largest distributor, following a series of acquisitions. In late 2000 and early 2001, PP&L also acquired a stake in Compañía General de Electricidad (CGE) amounting to 7% of the fourth largest electricity company in Chile by sales (see table II.11). Another major player is the United States firm Southern Energy, which was one of the first foreign firms to invest in the Chilean electricity sector. In 1993 Southern Energy acquired 35.1% of Empresa Eléctrica del Norte Grande S.A. (Edelnor) for US$ 73 million and since then has raised its stake to 82.3% through a series of other acquisitions and capital increases (Edelnor, 2000). Another two United States firms with significant interests in Chile are Public Services Enterprise Group (PSEG) and Sempra Energy. Between April 1999 and January 2000, they acquired 100% of Chilquinta Energía for a total of US$ 878 million (see table II.9). Lastly, in October 2000 the Canadian firm HydroQuebec bought Compañía Nacional de Transmisión Eléctrica (Transelec) outright from Endesa Chile for US$ 1.076 billion.[37]

Over the last two years the Chilean electricity industry has thus been shaped by an aggressive strategy of market penetration and regional consolidation on the part of major transnational corporations from outside the region. By means of a few aggressive acquisitions, these transnational players cut short the internationalization of the Chilean electricity industry by local players and left almost the entire sector under the control of foreign investors (see table II.11). The main operations involving Endesa España and AES Corporation were part of a policy of rapid expansion in the rest of the region which served to consolidate their regional position, particularly in the segment of generation, and significantly altered the ownership structure of the industry in many countries of the region. Although the final outcome of this restructuring at the local and regional level is still far from clear, and a significant number of regional and foreign players remain in different niches, the industry has recently shown a clear tendency towards concentration in the hands of a few transnational corporations which operate regionally. This is the trend which underlies the recent acquisitions of Enersis, Endesa Chile and Gener.

(b) Chile: a testing ground for European telecommunications operators?

The telecommunications industry has seen deep restructuring throughout the 1990s at the world and regional levels and has become one of the most dynamic sectors in the globalization process (see chapter IV). In Chile, telecommunications has been one of the economy's fastest growing sectors, with increasing coverage and improved quantity and quality of services, technological advances and rate reductions. In fact, from 1.3% of GDP in 1989, telecommunications came to account for 3.5% in

37 The board of Endesa Chile agreed to tender its 100% stake in Transelec in accordance with commitments made by Enersis as part of a plan to increase transparency in the operation of the electricity sector. The decision was made owing to disagreements over vertical integration and the transmission monopoly.

Table II.11
CHILE: LARGEST ELECTRICITY FIRMS, BY SALES, 1999
(Millions of dollars)

Firms	Main shareholders	Sales
Enersis	Endesa España, Spain (64%) Citicorp, Estados Unidos (12.2%)	4 284
Endesa	Endesa España, Spain (60%) Citicorp, United States (13.9%)	1 622
Gener	AES, United States (95,6%)	832
Compañía General de Electricidad (CGE)	Grupo Marín, Chile (7.8%) Pennsylvania Power and Light, United States (7.5%)	524
Chilectra	Enersis, Chile (72.8%) Morgan Guaranty Trust, United States (7.3%)	502
Chilquinta Energía	Sempra Energy , United States (50%) Public Services Enterprise Group, United States (50%)	402
Empresa Metropolitana de Electricidad (EMEL)	Pennsylvania Power and Light, United States (95.4%)	289
Empresa Eléctrica EMEC S.A. (ex-Empresa Eléctrica de Coquimbo S.A.)	Compañía General de Electricidad, Chile (99%)	125
Empresa Eléctrica Colbún Machicura S.A.	Tractebel, Belgium (26%) CORFO, Chile (38.8%) Grupo Matte, Chile (28.9)	123
Empresa Eléctrica del Norte Grande S.A. (EDELNOR)	Southern Energy, Inc., United States (82.3%)	121
Sociedad Austral de Electricidad S.A. (SAESA)	Compañía de Petróleos de Chile (Grupo Angelini), Chile (93.9%)	120

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management.

1998, with an annual average investment of US$ 900 million (SUBTEL, 2000).

The Department of Telecommunications (SUBTEL) was created in 1977 to regulate and oversee the different agents in the sector. Until 1978 there were only two main firms in the market, both operating as State-owned monopolies through the Chilean Development Corporation (Corfo). The public holding company owned both Compañía de Teléfonos de Chile (CTC), which had a monopoly over local calls, and Empresa Nacional de Telecomunicaciones (Entel), which operated long distance services. Beginning in 1978, the deregulation process meant that CTC lost the exclusive right to supply services and equipment and that other firms were admitted to the market (Telefónica del Sur (Telsur), Compañía de Teléfonos de Coyhaique (Telcoy), Complejo Manufacturero de Equipos Telefónicos (CMET) and Telefónica Manquehue). All

these new firms, which together covered 6% of the country, were set up by local investors (see table II.12).

In the early 1980s, ahead of other countries in the region, the Chilean authorities undertook a far-reaching reform of the telecoms sector. The General Telecommunications Act was enacted in 1982, creating a regulatory framework whose provisions remain in place today, with no more than a few alterations.[38] In the mid-1980s the State telecommunications monopoly gave way to private capital investment in both the basic telephone network and long-distance services. The privatization of CTC and Entel began in 1986 and involved both local and foreign investors.

- In January 1998 almost 50% of the share capital of CTC was transferred to the Australian group Bond Corporation. This transaction caused some surprise given the Australian investor's lack of experience in the telecommunications sector; the firm bid the highest price per share, however, and committed to capital increase of US$ 270 million. Then, in the wake of financial problems in Australia and unable to meet its commitments in Chile, Bond was obliged to transfer its share in CTC to the Spanish firm Telefónica de España in 1990, which paid US$ 388 million for 42.6% of the stock. Telefónica currently holds a stake of 43.6% in CTC[39] and has management control of the firm.
- Between 1986 and 1992 Entel was broken up and sold, mainly to local investors. In 1989, 33% was owned by corporations and 24% by pension fund administrators, while the Chilean firm Chilquinta[40] owned 20% of the share capital and held management control. Then foreign investors began to seek stakes in Entel. The first was Telefónica de España, which was soon obliged to transfer its share to Telecom Italia due to infractions of competition legislation. Telecom Italia currently has a 54.2% share and management control of Entel, following a successful acquisition in late 2000 (see table II.9).[41]

Since then, several foreign firms embarking on an international expansion effort —particularly Telefónica de España— have used the Chilean market as a testing ground in which to weigh their possibilities of expanding into the rest of the region. Not only does Chile offer favourable conditions for foreign investment, but Chilean telecommunications legislation is considered to be one of the most open in the world (Moguillansky, 1998). These conditions have compensated for investors' lack of experience in the region and have enabled them to adapt to the rapid changes in the sector at the global level (see chapter IV). The telecoms sector in Chile has thus seen the arrival of a significant number of operators in different segments of the industry, many of them from abroad (see table II.12). Although real competition is now steeper in the Chilean market, the benefits to users continue to be the subject of some debate.

Major strides have been made in the coverage of basic telephone services: the number of telephone lines per 100 inhabitants increased from 5.3 in 1989 to 21.1 in 2000 (SUBTEL, 2000). At the end of 2000, 3.3 million people had access to basic service lines (*El Mercurio*, 2 February 2001). A single firm (Telefónica CTC Chile), however, still holds a market share of around 85%, which affords it great power, even in negotiations with government authorities. In August 1999, Decree 187 was passed to regulate rates for a five-year period in activities defined as non-competitive within the basic telephone services segment. Telefónica CTC Chile took legal action, claiming that the cuts were inconsistent with the technical and economic bases that had been agreed upon. According to the firm, real competition exists in the Chilean market today for basic, mobile or any other type of telephone service.[42] The firm estimated that the new legislation would cause a reduction of 24.7% in its income per line (Telefónica CTC Chile, 2000). This, in combination with the losses the company recorded in 1999 and 2000, led Telefónica CTC Chile to announce

38 Some alterations were made in 1987 to improve rate-setting —with provisions to regulate services operating in non-competitive environments— and in 1994 to introduce competition into long-distance services through the multicarrier system. The Telecommunications Development Fund was also created in 1994 to provide telecommunications services to marginalized and isolated sectors of the population.

39 In 1990 the name of the firm was changed to Compañía de Telecomunicaciones de Chile and, in 1999, to Telefónica CTC Chile as part of the Spanish parent company's strategy of developing a global brand image, part of which was the generic term Telefónica (ECLAC, 2000a).

40 Chilquinta is a Chilean group which provides basic services and has concerns in the telecommunications, water and sanitation, property and technological development sectors.

41 In December 2000, Telecom Italia conducted one of the year's largest operations when it increased its stake in Entel by acquiring a 25.6% interest owned by Chilquinta (US$ 820 million) and other smaller shares belonging to the Matte group (3.5% for US$ 85 million) and Consorcio Nacional de Seguros (1.7% for US$ 27 million).

42 Some analysts reject this argument, maintaining that mobile telephony is not a substitute for basic services, but is instead complementary since, in the first semester of 2000, 89.7% of traffic originated in the basic services networks and just 10.3% in mobile networks.

Table II.12
CHILE: MAIN TELECOMMUNICATIONS FIRMS, BY SEGMENT

	Main shareholder	Basic local telephone service	Long-distance telephone service	Mobil telephone service
Telefónica CTC Chile S.A.	Telefónica de España, Spain (43,6%)	X[a]	Telefónica 188 Mundo	Telefónica CTC Comunicaciones Móviles S.A
Compañía de Teléfonos de Coyhaique (TELCOY)	Grupo Luksic, Chile	X[a]		
Complejo Manufacturero de Equipos Telefónicos (CMET)		X[a]		
Empresa Nacional de Telecomunicaciones (ENTEL)	Telecom Italia, Italy (54%) Grupo Luksic, Chile (14%)	ENTEL Phone	X[a]	ENTEL PCS
Telefónica del Sur (TELSUR)	Grupo Luksic, Chile (74%)	X[a]	Telefónica del Sur Carrier	
Telefónica Manquehue	National Grid, United Kingdom (30%), Williams Co., Estados Unidos (14%), Grupo Rabat, Chile (21%)	X[a]	Manquehue Larga Distancia	
BellSouth Chile	BellSouth Corporation, United States (100%)	X[a]	BellSouth Celular	
SmartCom (formerly Chilesat PCS)	Endesa España, Spain (100%)			X[a]

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the Department of Telecommunications (SUBTEL).

[a] Operates in the segment under the same name as the parent company in Chile.

a freeze on investments in basic telephone services until a new rate decree was issued and a reduction made in its overall investment plan from US$ 380 million to US$ 80 million.[43]

The main long distance operator is Entel, which inherited its leading position from the monopoly it enjoyed until 1994, when the multicarrier system came on stream. Long distance traffic grew at an average rate of over 20% during the 1990s.[44] Entel and its main competitor, Telefónica CTC Chile, increased their market shares in national long distance at the expense of smaller operators. In international long-distance services, however, Entel saw its market share decrease, as smaller operators won larger shares. This has been reflected in a widening range of products and services on the market, such as an automatic reverse charge system and prepaid cards, and participation in projects aimed at improving international connections (Entel, 2000 and Telefónica CTC Chile, 2000).

The number of subscribers to mobile telephone services recorded exponential growth, increasing from 4,886 users in 1989 to 3.2 million in 2000 (SUBTEL, 2000). In the late 1980s services in the 800 MHz band (cellular mobile telephony) were tendered out to Telefónica CTC Comunicaciones Móviles (formerly Startel) and Bellsouth Chile, on the basis that

43 In January 2001 Telefónica CTC Chile made a presentation to the Antimonopoly Resolutory Commission requesting the liberalization of public rates, i.e., metered local service, fixed charge and the rate and time-band structure. The firm argued that it was facing slow but inevitable deterioration, because the rate rigidities had obliged it to reduce investment. Moreover, insofar as all Chilean operators depend to a greater or lesser extent on the Telefónica CTC Chile network, lower investment by the firm would adversely affect the performance of the entire industry (*El Mercurio*, 31 January 2001).

44 Between 1990 and 1999 switched national long-distance public traffic grew from 570.9 million minutes to 2,762.8 million minutes. Over the same period switched international long-distance public traffic grew from 36 million minutes to 249.5 million minutes (SUBTEL, 2000).

profitability could only be maintained in a duopoly due to technological limitations.[45] Later, in 1997, three PCS digital telephone licences with national coverage were tendered (1900 MHz band). Two of these were awarded to Entel and one to Chilesat PCS (now Smartcom),[46] which had the effect of halving rates. In 1999 subscribers were no longer required to pay for incoming calls, under a new system whereby the caller paid the full cost, and invoices fell by 30%. The main operator at the national level in 1999 was Telefónica CTC Comunicaciones Móviles, with 51.8% of the market, followed by Entel PCS (30%), BellSouth (16%) and Smartcom (2.7%) (Kalau Vom Hofe, 2000). Steeper competition has resulted in better quality and a wider range of products and services offered by operators. Chile has become one of the Latin American countries in which this service has grown the most, with 18.8 subscribers per 100 inhabitants in mid-2000. According to the Department of Telecommunications, the number of cellular devices will equal the number of basic telephone service lines in 2002 (*Estrategia*, 20 October 2000). In fact, the difference was already almost negligible by late 2000, with the number of mobile telephony clients almost drawing level with the basic lines in service (see figure II.6).

As one example of the entry of new operators to the Chilean market, Endesa España acquired Smartcom in mid-2000 for some US$ 300 million (see table II.9). The strategy of this operator is to offer new services that will have the effect of segmenting the market. To this effect, Endesa España has announced investments of over US$ 100 million for the first months of operation (*El Mercurio*, 29 June 2000). This acquisition is part of Endesa España's strategy of moving into the telecoms business by availing itself of its existing electricity distribution networks and using Smartcom as a platform from which to compete in future cellular telephone concessions in Brazil and Argentina.

Another case which is interesting for similar reasons is the British firm National Grid's acquisition of a stake in Telefónica Manquehue in May 2000 (see table II.9). The purpose of this operation is to make the Chilean firm one of the leaders in broadband services (see www.manquehue.cl). Annual investments of some US$ 60 million are planned for the next five years to bring the number of lines up to 350,000, and US$ 241 million is to be invested in building a 4,300 km network to join the main Argentine cities to Santiago (*Convergencia Latina*, 26 October 2000).

As in the main operators' countries of origin, business strategies in Chile are being refocused. Overall, the specifications of each operator aside, there is a clear trend toward the decentralization of activities controlled from different production units. In many cases this entails separate ventures which give rise to corporate firms, with parent companies and a series of subsidiaries lending different types of services. The subsidiary firms begin to adopt the same structure as the parent companies, establishing subsidiaries by market segment, which then start to interrelate vertically. Telecom Italia Mobile (TIM), which is a subsidiary of Telecom Italia, owns a stake in Entel PCS, and Telefónica Móvil S.A., a mobile telephone service subsidiary of Telefónica de España, controls Telefónica CTC Comunicaciones Móviles.

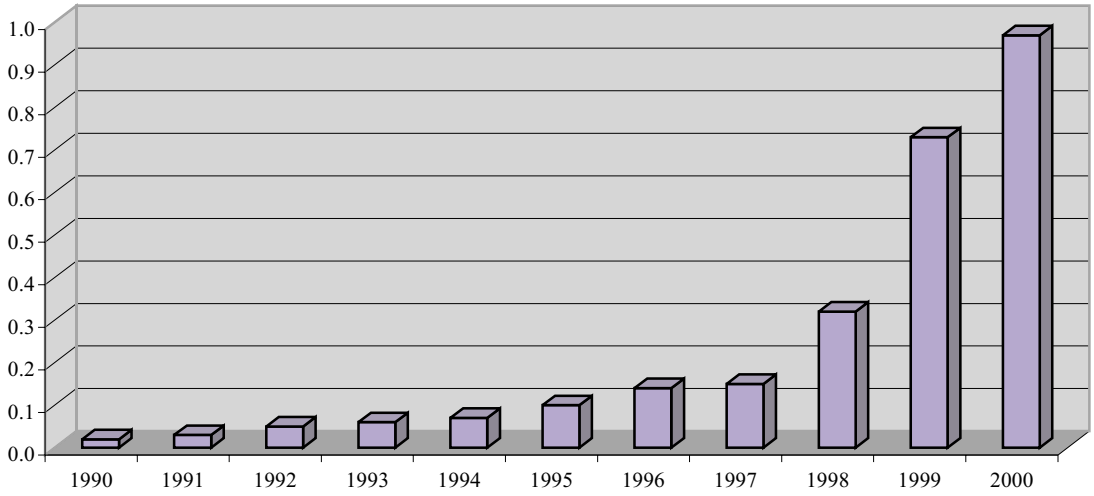
In terms of technological development, the recent implementation of Wireless Application Protocol (WAP) has made it possible to navigate on the Internet from a mobile telephone. The service is supplied by Entel PCS, Smartcom and Bellsouth, but has not been very successful and is likely to be rapidly superseded by third generation (3G) telephony, the first licences for which have just been awarded in some European countries (see chapter IV). The first half of 2001 will also see operating licences awarded for the wireless basic telephone service known as Wireless Local Loop (WLL), which permits copper and coaxial wires to be replaced by fixed antennae. Several firms have already expressed an interest in participating, including Telefónica CTC Chile, Entel and BellSouth. The main advantage of this system is that it enables services to be supplied in areas which are currently inaccessible. The market is also likely to be opened to third generation telephone services in the future.

Internet services have also experienced strong growth recently. During 2000 the number of users increased from 650,000 to 1.8 million. The spread of the Internet has been accelerated by lower rates (Telefónica CTC Chile rate decree), new plans, free access, the emergence of Chilean sites, the arrival of asymmetric

45 Two concession zones for cellular telephony were established in the 800 MHz band. The first consisted of the Metropolitan area and the Fifth Region, and the second of the rest of the country. Two licences were tendered in each zone, operating in the A and B bands of the radio spectrum, respectively.

46 This firm is controlled by Endesa España in line with the electricity company's strategy of moving into the telecommunications business, given the potential economic viability of using electricity distribution networks for telecommunications services, which has already been proven to be technically possible.

Figure II.6
CHILE: RATIO OF BASIC TO MOBILE TELEPHONE SERVICE SUBSCRIBERS



Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the Department of Telecommunications (SUBTEL).

digital subscriber line (ADSL) technology, which permits ultra-fast network access, Internet services offered by the cable TV firms and the importance the issue has been afforded in political circles. Examples of this include President Ricardo Lagos' speech of 21 May 2000 and his visit to Silicon Valley, where he met with major business figures in the new economy.

This panorama would suggest that investments in the telecommunications sector will continue to grow, in particular inflows to mobile telephony activities associated with technological advances and innovations. In fact, telecoms investments totalled US$ 1.117 billion in 2000 and are likely to grow to US$ 6 billion over the next six years (*El Mercurio*, 25 January 2001). Investments in the sector have already been reflecting this trend in the period 1998-2002, since thus far 34% of inflows have gone to cellular telephone services and 28% to basic telephone services and public telephones (Kalau Vom Hofe, 2000). Foreign investors will continue to be the drivers of this trend but, even so, in relation to the rest of Latin America, Chile has begun to lose some of the importance that it had in the early 1990s for the first global operators arriving in the region. Today, global and regional strategies are centred on the major markets, mainly Brazil.

(c) Water and sanitation services: the final stage of the Chilean privatization process?

The pace of ownership transfers and changes in corporate management and market regulation in the water and sanitation industry increased in the second half of the 1990s, encompassing water catchment, supply, distribution and sanitation (see table II.9). In fact, however, the Administration altered the regulatory framework and began a series of far-reaching changes in both the administration and supply of these services in the late 1980s on the basis of its experience in the privatization of other sectors, such as telecoms and electricity. The main objectives of the water and sanitation reform were, on the one hand, to separate the State's service-providing responsibilities from its role of regulation and supervision and, on the other, to promote a new model of drinking water supply service and sanitation in Chile (Moguillansky, 1999).

One of the milestones of this reform process took place in the course of 1989 and 1990, with the creation of 11 regional companies to replace Servicio Nacional de Obras Sanitarias (Sendos), which had previously served the entire country. Empresa Metropolitana de Obras Sanitarias (Emos) and Empresa de Obras Sanitarias de Valparaíso (Esval) were also created. These enterprises, in the business of water catchment, purification and

distribution, became more autonomous corporations, though ownership remained largely in the public sector through Corfo. These 13 public-sector companies are the largest in the country and supply drinking water and sewerage services to almost 90% of Chile's population.

In 1989 the industry's regulatory framework, the General Sanitation Services Act (DFL 382), was also established and the regulatory body, the Sanitation Services Superintendency, was created, reporting to the Ministry of Public Works (MOP). The regulatory framework specifies the conditions under which public-sector concessions may be applied for, awarded and operated. One of the basic provisions of this legislation obliges the concession-holder to administer the service in line with a 15- to 20-year development plan that includes annual investment targets set by the Sanitation Services Superintendency. In 1994 a reform was proposed to the institutional framework to strengthen regulatory activity, make rate calculation more transparent and increase the permitted stake of private firms in waterworks to 65%. This initiative finally went through in 1997.

Chile's indicators show good coverage of drinking water and sewerage services today. Drinking water supply reaches 90% of the population, and 80% have a sewerage system. Of the urban population, 99% have access to drinking water and 91% to sewerage services, and investment plans should ensure that the remaining shortfall is fully redressed by 2003. Even so, Chile's major outstanding task is in sewage treatment. Today just 22% of the population with access to a drinking water supply are also covered by a service to treat sewage before it is discharged into rivers, lakes, lagoons or the sea. This situation reflects a large investment lag, which has been one of the main reasons behind the increased incentives for the domestic and foreign private sector to acquire stakes in public-sector firms in recent years. In fact, tenders stipulate a minimum level of future investment on the part of firms, which gives the Sanitation Services Superintendency a clear picture of expected coverage targets.[47]

A new alteration to the regulatory framework in 1998 allowed the private sector to hold management control, in addition to stakes, in State-owned water and sanitation enterprises. The State may now award concessions in the areas of production or distribution of drinking water and sewage collection and disposal. In addition, the public sector can reduce its ownership stake in these firms to a minimum of 35%.

During this period, the private sector has been awarded concessions in several firms, involving sums of over US$ 1.6 billion. The first company to bring in private capital was Empresa Sanitaria de Valparaíso (Esval). In December 1998 a consortium formed by the local Enersis group and the British firm Anglian Water Plc (Aguas Puerto) acquired 40% of Esval. A shareholders' agreement gave control of Esval to this consortium. In July 2000 Anglian Water bought the Enersis stake in Aguas Puerto for US$ 137 million, which gave it control of Esval. In September 1999 Empresa Metropolitana de Agua Potable (Emos) was involved in two concessions. First, 43% of the firm was transferred to a consortium formed by Aguas de Barcelona of Spain and Suez Lyonnaise des Eaux of France, with a total investment of US$ 960 million (ECLAC, 2000a). Second, a concession for sewage treatment in the southern part of Santiago was awarded to the French firm Compagnie Générale des Eaux, which involved a contract for US$ 42 million. Emos is thus to invest some US$ 1.6 billion in the next 10 years, of which 60% (US$ 960 million) will go to sewage treatment.

In 1999 another two major public-sector companies in the sanitation sector were partly transferred to private investors. In July, the Spanish firm Iberdrola acquired 51% of the ownership of Empresa de Servicios Sanitarios de Los Lagos (Essal) for US$ 94 million. In November, a consortium consisting of the British firm Thames Water Plc and Eletricidade de Portugal acquired 51% of Empresa de Servicios Sanitarios del Libertador (Essel) for US$ 136 million (see table II.9).[48]

In 2000 the British firm Thames Water concluded the purchase of a 42% share in Empresa de Servicios Sanitarios del Bío-Bío (Essbio) for US$ 282 million. This firm will hold significant stakes in sanitation firms in both the Sixth and Eighth Regions (Essel and Essbio). Emos, which is controlled by a Franco-Spanish consortium, enhanced its position on the Chilean market with the acquisition of Aguas Cordillera for US$ 193 million and a 50% share in Aguas Manquehue (see table II.9). In the wake of these acquisitions, Emos is studying the possibility of merging its operations, provided that the Antimonopoly Commission authorizes the purchase of Aguas Cordillera. Lastly, the Government announced the privatization of Empresa de Servicios Sanitarios del

47 Sanitation Services Superintendency projections show 27% coverage in sewage treatment services by December 2000, and a target of 69% in 2005 and 99% in 2010.

48 The process includes the commitment to underwrite a capital increase for a 13% stake. The consortium will thus control 45% of the sanitation firm, requiring an investment of US$ 112.5 million.

Maule (Essam) and Empresa de Servicios Sanitarios de la Araucanía (Essar), both in 2001. Thames Water has expressed an interest in both utilities but will have to opt for one only, as the current legislation does not allow a single investor to control more than 49% of medium-sized sanitation enterprises (*Estrategia*, 14 December 2000).

These sweeping changes will attract large flows of new investment in sanitation infrastructure in Chile. According to a study conducted by Géminis Consultores, the largest single target of sanitation investments in the period 1999-2003 —which will total US$ 1.8 billion— will be the sewage treatment segment (*Estrategia*, 5 December 2000). In this period some US$ 660 million is to be invested in sewage treatment, which should increase the coverage of the service to over 50% in the next few years and to 97.2% of the country by 2010, in keeping with the targets set by the regulator. The main activity of the waterworks companies will continue to be drinking water supply, however. They will invest about US$ 330 million in the period 1999-2003 in order to cover projected annual growth of 2.1% in client numbers, which is considerably less than the rate of 4.3% recorded between 1994 and 1999.

The sanitation infrastructure sector has thus seen substantive changes over the last 10 years. Firstly, regulatory changes modified the national model of supply and administration, creating self-financing corporations that were more independent and efficient. Secondly, in the late 1990s the conditions were created to carry forward the process of public utility privatization, bringing in foreign capital through a system of concessions. This has accelerated the process of investment in the sector and reduced the shortfall in sanitation infrastructure in Chile. In fact, in the 1990s the sanitation firms invested an annual average of US$ 184 million, which should increase to some US$ 300 million per year this decade.

(d) The Chilean financial system: squeezed by Spanish bank mergers

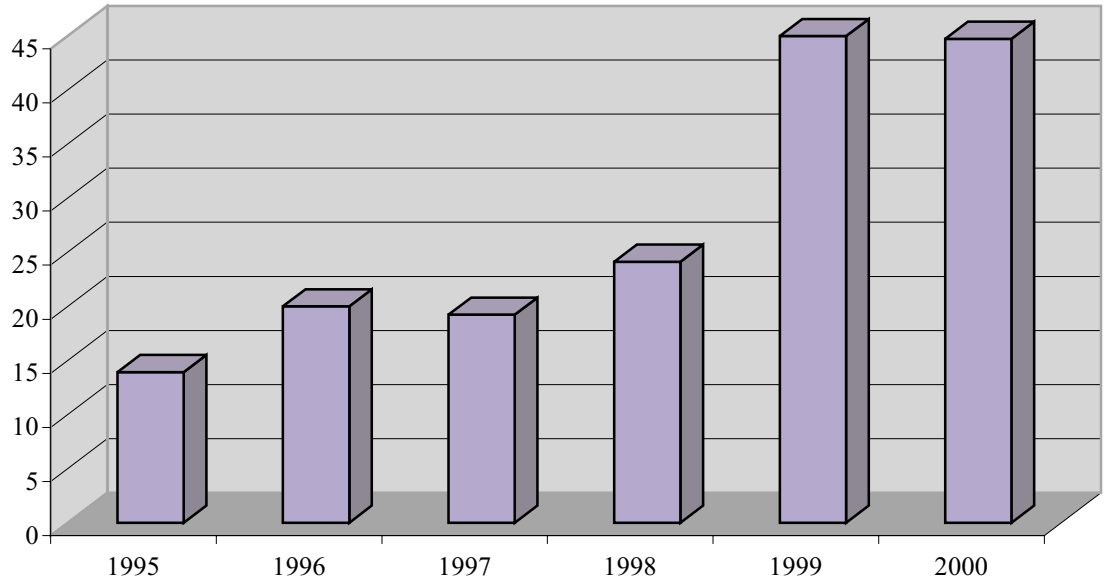
The financial system in Chile currently consists of 29 institutions. Of these, 9 are privately-owned domestic banks, 17 are subsidiaries of transnational corporations, one is State-owned (Banco del Estado) and one is a finance company (see http://www.sbif.cl, Superintendency of Banks and Financial Institutions). Until fairly recently, the sector was dominated by the major domestic banking institutions, while foreign banks —including Citibank and Banco Santander— had a much lower profile, and were concentrated in particular segments of the market. In the late 1990s, however, the landscape of the Chilean banking sector was profoundly altered when Banco Santander Central Hispano (BSCH) of Spain acquired the largest institution in the market (Banco Santiago) and some partly foreign-owned banks also increased their market share. In fact, between 1995 and 2000, foreign banks increased their share of total lending in the system from 14% to 44.7% (see figure II.7).

A striking feature of this situation is that the changes in the structure of the banking market resulted from an extraregional merger of two institutions that each had their own stakes and strategies in Chile rather than from a regional or national expansion effort on the part of a single foreign bank. In the context of the intensive globalization process under way in the international economy, therefore, decisions that corporations make not only affect their own economic and financial interests in the economies of origin, but also entail major corporate and regulatory restructuring in third countries which are recipients of foreign direct investment. In Chile this phenomenon has been reflected in a reordering of the local financial system in the wake of restructuring in the main Spanish banks (see box I.1).

In early 1999 Banco Santander merged with Banco Central Hispano (BCH) to form Banco Santander Central Hispano (BSCH). The assets of the merged institution made it the foremost financial group in Spain and Latin America, with a presence in 12 countries (see box I.12). A few months later Banco Bilbao Vizcaya merged with Argentaria to create Banco Bilbao Vizcaya Argentaria (BBVA), which became the second largest group in Spain and a major presence in Latin America. With the creation of BSCH, Banco Santiago and Banco Santander Chile, which ranked first and fourth in the Chilean banking system, respectively, came under the control of the new Spanish group. BSCH thus gained control of almost a third of the Chilean market (26.7% of all loan placements in December 2000), which threatened to contravene the country's antimonopoly legislation.

As part of its strategy of Latin American expansion, Banco Santander had sought to acquire majority share packages in local banks in order to secure control and ownership (Calderón and Casilda, 2000). By 1997, this institution already held 86% of Banco Santander Chile, which had absorbed Banco Osorno (see table II.9). BCH, meanwhile, had acquired Banco O'Higgins outright for US$ 24 million in 1993. Banco O'Higgins then merged with Banco de Santiago in 1997, in keeping with the strategy of acquiring majority stakes jointly with strategic partners (see table II.9). In 1996 BCH embarked upon an ambitious regional expansion effort, coordinated around a strategic alliance with the Chilean

Figure II.7
CHILE: SHARE OF FOREIGN BANKS IN TOTAL LENDING IN THE FINANCIAL SYSTEM, 1995-2000
(Percentages)



Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of Información financiera, Superintendency of Banks and Financial Institutions, various issues.

Luksic group, through its stake in the O'Higgins Central Hispano (OHCH) partnership. The institution's activities in Chile were a key part of its Latin American operations, with its stake in Banco Santiago making it a leader in one of the region's most competitive markets. Their different strategic aims, however, began to come between BCH and its Chilean partner (Calderón and Casilda, 2000). The discrepancies escalated when BCH merged with Banco Santander and, in late April 1999, BCH dissolved its alliance with the Luksic group completely, paying US$ 600 million for 50% of their joint assets in Latin America.[49] As a result, BSCH came to control 43.5% of Banco de Santiago and 86% of Banco Santander Chile (see table II.13). In addition, BSCH reached an agreement with the Central Bank of Chile to acquire its share of 35.4% in Banco de Santiago over a period of three years, but this arrangement has encountered complications due to its heavy concentration in the Chilean market. Given this situation, BSCH undertook an agreement with the Chilean Government and parliamentary authorities to keep the administration of its two Chilean banking concerns (Banco Santiago and Banco Santander) separate and refrain from merging them, at least for the time being.

Unlike the situation in other countries of the region, BSCH and BBVA have not become fierce competitors in Chile. BBVA entered the Chilean market in June 1998 with an agreement to acquire a stake in Banco Hipotecario de Fomento (BHIF) in several stages. After an outlay of US$ 350 million, BBVA currently holds a 55% share and management control of what is now known as BBVA BHIF (see table II.13). With control of the Chilean institution secured, BBVA has undertaken a

49 These assets included 50% of Banco Tornquist in Argentina, 39% of Banco de Asunción in Paraguay and 45% of Banco del Sur (Bansur) in Peru. BCH valued the OHCH partnership at US$ 1.2 billion, of which US$ 600 million would correspond to the Spanish institution. This valuation caused some conflict, however, since at the time of the merger with Banco Santander BCH had estimated its stake in the partnership at some US$ 400 million. The Chilean group had two months to reach a decision, and finally accepted US$ 600 million for its 50% share of the OHCH partnership (Calderón and Casilda, 1999).

Table II.13
CHILE: MAIN FULLY OR PARTLY FOREIGN-OWNED BANKS, BY VALUE OF ASSETS, 1999-2000
(Millions of dollars)

	Place in local ranking by loans December 2000[a]	Bank	Assets 1999	Foreign investor	Foreign capital (%)	Country of origin	% of loans market December 2000[a]
1	1	Banco Santiago	13 933	Banco Santander Central Hispano, BSCH (43.5%) / Hong Kong and Shanghai Banking Corporation, HSBC (5.9%)	49.5	Spain / United Kingdom	15.44
2	4	Banco Santander Chile	12 485	Banco Santander Central Hispano, BSCH	86.0	Spain	11.28
3	14	BankBoston Chile	6 261	BankBoston	100.0	United States	1.60
4	9	Citibank Chile	5 630	Citicorp	100.0	United States	3.77
5	20	The Chase Manhattan Bank Chile	5 566	Chase Manhattan Corp.	100.0	United States	0.44
6	7	BBVA Banco Bhif	4 521	Banco Bilbao Vizcaya Argentaria (BBVA)	55.5	Spain	5.72
7	11	Banco Sud Americano	4 398	Bank of Nova Scotia (Scotiabank)	99.2	Canada	3.47
8	15	ABN Amro Bank Chile	3 487	ABN Amro Holding	100.0	Netherlands	0.98
			56 281				**42.70**

Source: ECLAC, Information Centre of the Unit of Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the Superintendency of Banks and Financial Institutions, América economía, Gazeta mercantil latinoamericana, Diario estrategia and El diario.

[a] Includes Banco del Estado and Financiera Conosur.

more active strategy of market positioning and has introduced many of the products that have given it excellent returns in Spain and the rest of Latin America. Between 1997 and 2000, BBVA BHIF thus climbed from eighth to sixth place among the privately-owned banks in Chile and increased its market share from 5% to 6.6%. The institution also acquired Chile's largest pension fund administrator (AFP Provida) for US$ 250 million, to become the foremost operator in this activity in the region, with a weighted market share of 26% in terms of managed assets (Calderón and Casilda, 1999).

Not only Spanish groups have increased their stakes in the Chilean financial market, however. United States institutions such as Citicorp, BankBoston and, to a lesser extent, Chase Manhattan Bank have also expanded steadily. The Canadian institution Bank of Novia Scotia (Scotiabank) has also pursued an interesting positioning strategy. In the early 1990s this Canadian bank acquired just over a quarter share of Banco Sudamericano for a little over US$ 20 million, as a strategic partner in the traditional Chilean institution. In late 1999 Scotiabank acquired a further 33% of the Banco Sudamericano stock for US$ 116 million, which gave it a share of 61% and management control of the Chilean bank. Finally, in 2000 new acquisitions increased the Canadian bank's stake to 99.2%. The new management has modernized the image of the bank, which offers integrated financial services to a wider range of clients. These changes are likely to increase the bank's market share, similarly to the experience of its United States rivals.

The process of concentration continues in the banking sector, with the Luksic group gaining control of Banco de Chile. In response to this trend, and in view of the ascribed intention on the part of the BSCH to merge Banco Santander Chile with Banco Santiago, the Chilean authorities attempted to establish upper limits on market shares. Although the new public share offer legislation was enacted without a clause which would have limited banking concentration to 20%, the authorities are currently studying alternatives that would at least give them the right to veto operations that would increase concentration in the industry. Foreign banks are likely to

continue purchasing domestic financial institutions in 2001, however. International corporations which have expressed an interest in this context include Citibank, ABN Amro Bank and Deutsche Bank (*El Mercurio*, 29 December 2000, p. B6).

C. CONCLUSIONS

FDI in Chile has taken different forms in keeping with the changes that have occurred in the country. During the liberal regime that existed before the crisis of the 1930s, FDI went almost exclusively to mining activities. Beginning in the 1950s, in addition to these traditional investments, increasing sums of FDI flowed into manufacturing in the context of the import-substitution industrialization process (ISI). Later, the nationalization of large-scale mining and the agrarian reform of the 1960s and 1970s created an unfavourable environment for FDI. The political and social process underlying this transformation ended violently with the military coup of 1973, which opened the way to a new period of economic liberalism characterized by far-reaching market reforms and economic policies that were very favourable to foreign investment. Lastly, the return to democracy in the 1990s left the broad principles of the existing economic policy unaltered and —in combination with a good macroeconomic performance— reinforced the perception of stability from the point of view of foreign investors.

In this context, FDI flows have been extremely dynamic, growing from an annual average of US$ 720 million in the period 1985-1989 to almost US$ 5.5 billion between 1996 and 2000. In addition, the 1990s saw major changes in the modalities employed by foreign investors, the sectoral distribution of investments and the origin of capital flows.

- In the second half of the 1980s investors tended to use debt conversion mechanisms (Chapter XIX), which afforded heavy implicit subsidies. In the 1990s foreign firms returned to more traditional modalities of investment (DL 600). While in the first half of the decade investments went mainly to new projects, FDI in the second half of the 1990s was directed largely at the acquisition of existing assets.
- There were two clearly distinguishable investment cycles in the 1990s. Between 1990 and 1995, FDI inflows continued to follow the patterns of the 1980s and went largely to natural resource extraction and processing activities, in which the country offered enormous comparative advantages. Mining accounted for 58% of total flows, services just 24% and manufactures, many associated with resource processing, 15% of the total. In the second half of the decade, FDI streamed into acquisitions of local firms in the services sector. In this period the share of mining in total flows fell to 24% and manufacturing activities accounted for 10%.
- Between 1990 and 1995, two thirds of resources came from North America (United States and Canada) and just 15% from the European Union. In the period 1995-2000, however, flows from North America represented only 37% of the total, while investment from the European Union accounted for 45%. Within Europe the largest investor was Spain, which contributed 30% of the flows received during the period through major acquisitions of Chilean services firms.

In the mining sector, the large investments of the first half of the 1990s were attributable to the country's excellent natural advantages, a favourable regulatory framework, technological advances in the industry and promising market conditions during the period. These factors dovetailed with the expansion strategies of major transnational corporations, such as Phelps Dodge Corporation of the United States, Placer Dome, Falconbridge and Rio Alcom of Canada, Rio Tinto Zinc and Anglo American of the United Kingdom and Broken Hill Proprietary of Australia, which invested heavily in Chilean mining, particularly copper. These investments helped to expand Chilean copper production at an annual average rate of 12.3% during the 1990s, which increased the country's share of the world copper market from 18% in 1990 to 30% in 1999.

Foreign investment has also been instrumental in the development and good export performance of other resource-based activities. In the second half of the 1980s foreign investors were heavily involved in the *forestry sector* and the industry associated with its derivatives, particularly pulp. United States and New Zealand firms used the debt conversion mechanism to form partnerships with local groups to exploit forestry resources, and the sector and its exports expanded rapidly in the first half of the 1990s. In the second part of

the decade, however, these partnerships came to an end and foreign investors withdrew almost entirely from the forestry sector. A similar situation arose in the *fisheries sector*, especially in low value-added activities such as fishmeal. Recently, foreign investors —from Norway, Netherlands and Canada— have streamed into the more dynamic segments, such as the salmon industry. In the 1990s salmon exports increased sharply, from 1.8% of total Chilean exports in 1991 to 5.3% in 2000. In the *agricultural sector*, foreign investment targeted the segment of fresh fruit for export and wine production. Major transnational firms played a key role in the strong export development of the fresh fruit sector by coordinating small and medium-sized domestic producers, centralizing the processes of selection, packing, refrigeration and transport, and marketing fruit abroad. As a result, in the 1999-2000 season, the four largest transnational corporations accounted for almost 30% of fresh fruit exports, which represent over 8% of total Chilean exports. FDI in the wine industry has been mainly in the form of partnerships with local vineyards to produce high quality wines. Foreign firms have thus withdrawn from activities that are more sensitive to international commodity prices (pulp and fishmeal) and have sought to take advantage of opportunities in new segments with greater value added and in which certificates of origin represent a good in themselves, such as salmon and fine wines.

In the second half of the 1990s FDI inflows were concentrated in services activities. Unlike other countries in the region, in Chile the main State-owned services firms were privatized early on —in the 1980s and early 1990s— and were subsequently managed mainly by private local investors. The recent wave of foreign investment in the sector has thus been directed largely at acquisitions of private local groups. The most typical case is the *electricity sector*. Following the privatization of the great majority of them in the late 1980s, the main Chilean electricity firms embarked on a strong expansion drive in Chile and the region under the management of private Chilean capital, thus giving rise to conglomerates with a major subregional presence. These were precisely the features that attracted two of the main players of the electricity sector to the region: Endesa España of Spain and AES Corporation of the United States. In just two years, the regional expansion strategies of the main transnational corporations thus radically transformed the ownership structure of the Chilean electricity sector.

In the 1980s —which was early compared to the rest of Latin America— the reform of the *telecommunications sector* began with the privatization of Empresa Nacional de Telecomunicaciones (Entel) and Compañía de Teléfonos de Chile (CTC). Entel was privatized between 1986 and 1992, an operation which involved mainly local investors, and is now controlled by Telecom Italia. In 1988 CTC was transferred to the Australian Bond group. Bond later sold its stake in CTC to Telefónica de España, which still controls it. Like other major transnationals in the sector, in the 1990s Telefónica de España used Chile to evaluate its possibilities of expansion in the rest of the region, as part of a trend which brought large investments into different segments of the telecommunications sector throughout the decade.

In the late 1990s *banking and financial services* received enormous FDI flows which substantially altered the ownership structure of both activities. The banking sector was particularly marked by the effects of an extraregional merger, which left a large portion of the market in the hands of a single operator. In early 1999 Banco Santander and Banco Central Hispano merged to create BSCH. Both institutions had undertaken ambitious expansion efforts in Latin America —using very different strategies— which had placed them at the respective helms of two of the leading banks in the Chilean market. With the merger, Banco Santander Chile and Banco Santiago therefore both came under the management of BSCH, which generated tensions with the antimonopoly authorities. Meanwhile, the privatization of the main water and sanitation companies attracted new agents to the Chilean market which, as in other services activities, sought to consolidate their regional presence through these acquisitions.

Investment in Chile in the last two decades has thus been highly concentrated in two areas. In the 1980s and the first half of the 1990s FDI went mostly to developing export activities related to resource extraction and processing, with investors in this area gradually shifting towards segments offering greater value added. In the second half of the 1990s, however, investments were directly mainly at acquiring firms in the main areas of services. Signs of depletion in some of the main activities associated with resource processing and the fact that the country's services sectors are already strongly transnationalized, however, have raised some well-founded concerns about the future trend of foreign investment and its potential impact on the country's development. In response to these concerns the Chilean authorities have undertaken some —still very incipient— efforts to attract new investments in more technologically sophisticated sectors.

III. JAPAN: INVESTMENT AND CORPORATE STRATEGIES IN LATIN AMERICA AND THE CARIBBEAN

This year's version of chapter III, dealing with the experience of an investor country, differs from those of previous years, which considered the United States and Spain, because Japan is not one of the leading investors in Latin America and the Caribbean. In fact the central question this year is why Japanese companies have invested so little in the region. Official statistics provide only a partial answer to this because they suffer from major deficiencies (see box III.1 below). The available data show that Japanese TNCs made huge investments worldwide in the mid- to late 1980s; FDI outflows then declined sharply in the early 1990s before picking up again from 1994 onward, but at levels well below those of the late 1980s (see figure III.1). Japanese firms extended their international production systems between 1985 and 1998, and the share of total sales achieved by their foreign affiliates grew from under 5% to 14% during that period. Nonetheless, this was still about half the level prevailing among United States and German transnationals (UNCTAD, 2000, p. 40).

There is little doubt that the initial surge in Japanese FDI worldwide was closely associated with the strengthening of the yen against the United States dollar, following the Plaza Accord in 1985; but the exchange rate does not explain the second wave in the mid- to late 1990s. Moreover, the appreciation of the yen was apparently not that important for Japanese FDI in Latin America and the Caribbean (Goldberg and Klein, 1997),

Box III.1

THE ANALYTICAL SHORTCOMINGS IN OFFICIAL STATISTICS ON JAPANESE FDI

Official statistics on Japanese FDI are plentiful and diverse but not very useful for explaining its location, especially in the case of Latin America and the Caribbean. Balance of payments (BoP) figures come from two main sources; standardized international FDI data come from the Balance of Payment Statistics Monthly published by the Bank of Japan (BOJ), where actual FDI disbursements (both inflows and outflows) are reported on a monthly basis. The BOJ data contain serious deficiencies: reinvested earnings have been reported only since 1996, which raises a significant problem for time series analysis; the data also only provide a limited breakdown by host country and no breakdown at all by industry. As a result, the BOJ balance-of-payment data only have limited value for analysing Japan's FDI experience.

More widely used figures come from Fiscal and Monetary Statistics Monthly compiled by the Ministry of Finance (MOF). This publication contains data on both stocks and flows of Japanese FDI, either approved by MOF (up to December 1970) or reported to it (after 1970), in accordance with its legal mandate (amended in April 1998). These approved/reported FDI statistics have tended to substantially overestimate effective FDI, primarily because a large percentage of FDI that is approved/reported ultimately never gets carried out. Japanese firms have often sought excessively large approvals, or else over-reported their FDI in order to allow room for unexpected project expansions and minimize the related costs of reporting to MOF. Many approved/reported projects subsequently get downsized or even cancelled. The data also differ from standard balance-of-payments-based FDI statistics by reporting gross rather than net foreign investment, i.e., without deducting capital repatriation.

There are several other problems when using Japanese FDI data for international comparisons. Firstly, there is a huge difference between reported and BoP-based FDI data, since the value of reported FDI is more than double the BoP-based net FDI figure —in the 1990s, especially, when outward FDI flows stagnated, the discrepancy grew wider because of the large amount of unrealized (but reported) investment, and increased divestment. In fiscal 1999, for example, MOF reported FDI outflows of 7.439 trillion yen (about US$ 65 billion) while BOJ released a figure of just 2.411 trillion yen (about US$ 22 billion) (see Izuishi, 2000).

Secondly, reinvestment is not treated appropriately, because the report-based data omit this altogether, while BOP-based data include it only from 1996, thus causing another problem for time series analysis. In addition, reinvestment is grossly undervalued in BoP figures, which show it as 20% of total outward FDI when business surveys by other official institutions report it as representing about 50%, at least for manufacturing companies.

A further problem concerns the use of fiscal years. In general, most official statistics in Japan use the fiscal year starting in April as their basic time frame. Thus, fiscal-year data exclude the first quarter of the current calendar year but include the first quarter of the following one. Only monthly BoP-based data allow for international comparisons measured in calendar years. Thus, the analytical value of the large amount of detailed BOP data on Japanese FDI is limited by problems of coverage, definition and consistency.

Other important sources of statistical information on Japanese FDI, and on the operations (production, sales, or export data) of the Japanese corporations' foreign affiliates in the international market, include the business surveys carried out by the Ministry of International Trade and Industry (MITI) and the Export-Import Bank of Japan (EXIMJ now the Japan Bank of International Cooperation). The survey of broadest coverage is the MITI Overseas Activities of National Firms, which is undertaken every three years, while for the manufacturing sector alone, the EXIMJ Advanced Report on Trends in Japan's Overseas Direct Investment is conducted as a comprehensive annual survey.

These two surveys contain the most in-depth information available on the operational activities of Japanese companies. Nonetheless, given that replying to the surveys is not compulsory, they are subject to wide fluctuations in coverage from year to year, and this makes time-series analysis almost impossible. For example, the response rate of the MITI survey fluctuates between 33.4% and 60%, and that of EXIMJ from 51% to 60% —coverage levels that are quite low compared to the Benchmark Surveys of the United States Department of Commerce. The number of affiliates covered by the MITI FY95 survey is 10,416, i.e., just 40% of total affiliates listed in the Toyo Keizai data bank. The EXIMJ FY98 survey covers 6,654 affiliates, or 70% of the data bank in manufacturing sector.

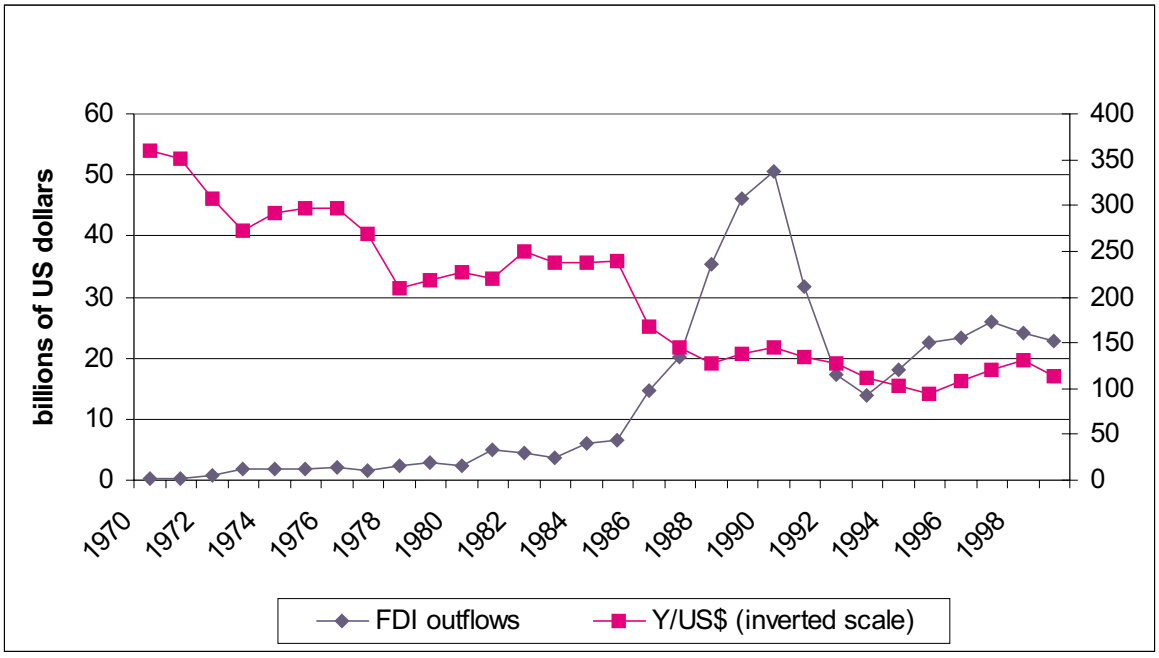
Box III.1 (concluded)

The Japanese External Trade Organization (JETRO) publishes an annual FDI white paper, containing detailed analysis of overall global investment trends and Japanese inward-outward FDI. Each issue carries a chapter on a special topic: industrial restructuring through FDI (1997); new channels of investment in relation to mergers and acquisitions, deregulation and privatization (1998); the effect of the Asian crises on FDI (1999).

Although the white paper is quite comprehensive, the data it uses is not collected or prepared by its own staff, except in the case of occasional surveys, such as a major recent questionnaire on the administrative situation of Japanese companies located in Latin America (JETRO, 2000a). Thus, the non-BoP official data on Japanese FDI and corporate operations also contain major analytical limitations.

Official statistics on Japan's outward FDI in Latin America would have us believe that the presence of Japanese TNCs in the region is characterized by FDI concentrated in the Cayman Islands (finance) and Panama (ship registry). This clearly contradicts operational data on Japanese corporations in Latin America that paint a very different picture in which Mexico and Brazil are key elements. This chapter attempts to clarify the role of Latin America in the international expansion of Japanese firms.

Figure III.1
JAPAN: OUTWARD FDI AND EXCHANGE RATE, 1970-1999



Source: UNCTAD, FDI/TNC database and IMF, *International Financial Statistics*

and other factors seem to have greater explanatory power. These include secular macroeconomic instability or crisis; the very different policy environments in Mexico and the Caribbean Basin (for efficiency-seeking FDI) and in South America (for TNCs seeking market access in services); passive national policy, including discontinuities and mismatches with global FDI waves; and a lack of interest among Japanese TNCs in Latin America's main FDI attractor, namely the sale of existing assets in privatization processes and through mergers and acquisitions. To better understand Japanese foreign direct investment generally, and particularly in Latin America, official FDI data need to be complemented with other pertinent information and analysis.

A. WHAT HAS POWERED JAPANESE OUTWARD FDI?

The growth and modernization of Japan has been the most spectacular of all major countries during the twentieth century, turning it into the world's second largest economy after the United States. Japan's per capita income grew at an impressive 5% a year for over 50 years. Its "indigenous innovation" model in which foreign technology was assimilated and improved upon by domestic firms, rather than channelled through subsidiaries of transnational corporations via FDI, represented a frontal assault on the dominant economies of that time, by attacking them not where they were weak but where they were strong. Good examples of this include Japanese advances in relation to British textiles in the 1920s and 1930s, relative to United States consumer electronics and mass-produced automobiles in the 1970s and 1980s, and relative to German machine tools and luxury cars in the 1980s and 1990s (Lazonick, 1994, p. 1).

The Japanese model excelled at industrial catch-up because that is precisely what it was designed for (Krause, 1991, pp. 6 and 9). The model's strong points included (i) the systemic application of innovative management techniques that greatly enhanced the country's industrial competitiveness (e.g., the lean manufacturing system) (UNCTC, 1990, pp. 2 and 12; Kaplinsky, 1995, pp. 58-59); (ii) corporate cross-shareholdings that sheltered Japanese managers from impatient shareholders and allowed them to take a long-term view of investment; (iii) worker- or bottom-up participation in the production process, which was encouraged by lifetime employment and helped achieve loyalty, high skill levels and better quality products; and (iv) high quality public services, especially education, which resulted in design and engineering excellence (*The Economist*, 10 April 1999, p. 69). A torrent of new literature in the early 1990s saw the Japanese competitive steamroller as practically unstoppable, and argued that the only solution was to learn from its example (Dertouzas, Lester and Solow, 1989; Thurow, 1992; Krause, 1991, p. 6; Encarnation, 1992). The "Far Eastern Method" for gaining competitiveness based on improved industrial production techniques lay behind Japan's success (Kagami, 1995, chapter 2).

The competitive advantages of the new Japanese management techniques (JMT), compared both to their original competitors and to their developing-country imitators as of about 1990 are summarized in table III.1. It is worth highlighting some of these in order to fully appreciate why Japanese firms took the lead in several major industries during the latter half of the twentieth century. As regards arena of implementation, while Japanese corporations made JMT a company-wide phenomenon, many of their imitators applied the techniques only in individual plants, and the traditional mass-production competitors did not implement them at all at that time. In terms of organizational procedures, the modern Japanese firms integrated cellular, small-lot, small-batch production with just-in-time (JIT) and total quality control (TQC) techniques, based on multi-skill teams pursuing continuous improvement. Many of their imitators employed these organizational procedures only partially, while the traditional mass producers continued to use old-fashioned procedures, such as standardized products based on large-lot, large-batch production, in a more functional layout with extended division of labour incorporating just-in-case inventories. The new Japanese model depended on close and frequent contacts with suppliers and customers; many of its imitators had relatively little such contact, and the traditional mass producers tended to have adversarial relationships with suppliers and customers. In short, modern Japanese corporations converted these techniques into a systemic characteristic, evident at all enterprise levels (group, firm, factory, production, supervisory and team). Most of their imitators could display certain aspects at different levels (factory, production, supervisory and

Table III.1
TYPOLOGY FOR ADOPTION OF JAPANESE MANAGEMENT TECHNIQUES (JMT), CIRCA 1990

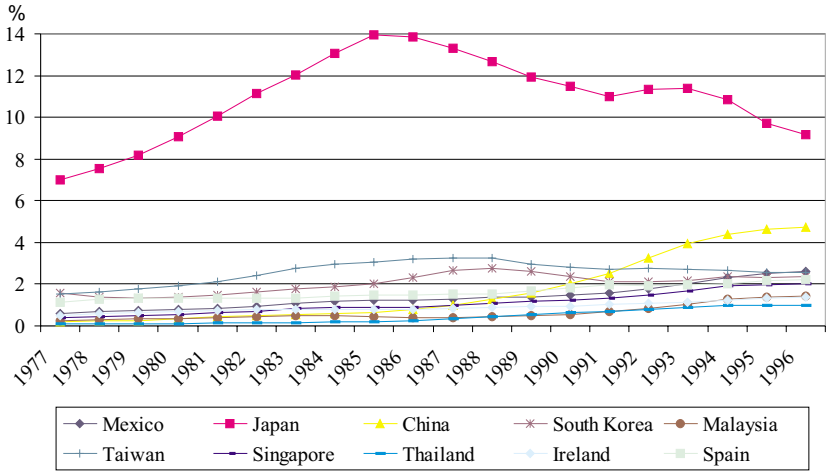
	Spectrum of JMT adoption		
	High ←		→ Low
Type of firm	Japanese archetype	Moderately successful imitators	Traditional mass producers
1. Arena of implementation:	Throughout firm	Individual plant(s)	None
2. Organizational procedures include:	Cellular production Small lot production JIT and TQC Multiskilling Team-working Small batch production Continuous improvement	Cellular production Smaller lot production JIT and TQC Multiskilling Team-working	Functional layout Large lot production Extended division of labour and quality control Just-in-case inventories Large batch production Standardized products
3. Supplier relations:	Close and frequent contacts with suppliers and customers	Little contact with suppliers and customers	Adversarial relations with suppliers and customers
4. Levels of managerial commitment:	Group Firm Factory Production Supervisory Team	Factory Production Supervisory Team	

Source: Adapted from Raphael Kaplinsky, "Technique and system: the spread of Japanese management techniques to developing countries", *World Development,* vol. 23, No. 1, January 1995, pp. 60 and 67.

team) without achieving systemic application, while the traditional mass producers did not make much headway at all in this area. Applied over decades, these advantages explain a large part of Japan's success in terms of economic growth and modernization during the twentieth century. Japan's firms were extremely successful at competing in manufactures, based on price, delivery-time and quality (EIAJ, 1998, p. 7). By the late 1990s, however, both the traditional mass-producers and the imitators had made adjustments enabling them to slow down and even cut into Japan's lead.

The greatest success of Japan's outward-oriented industrialization process was its ability to gain international market shares, which made it a heavyweight in international trade. The key to this success was specialization in the dynamic areas of international trade, namely manufactures not based on natural resources (Mortimore, 1995; Lall, 1998a, 2000). Figure III.2 shows that during the 1977-1996 period, on which the ECLAC/ CANPLUS computer database has detailed trade information (at the three-digit level of SITC Rev. 2) Japan was the world's major "winner" in terms of gaining OECD import market shares by exporting dynamic goods. Throughout this period it was far ahead of its industrializing imitators, such as South Korea and Taiwan, and also of its newer competitors —mostly Asian— such as Singapore, Thailand, Malaysia, China, and others (Mexico, Ireland and

Figure III.2
MAJOR GAINERS OF OECD IMPORT SHARE OF THE 50 MOST DYNAMIC PRODUCTS IN INTERNATIONAL TRADE, 1977-1996
(SITC, Rev. 2, three-digit level)



Source: ECLAC Unit on Investment and Corporate Strategies, based on the ECLAC, CANPLUS computer program on international competitiveness.

Spain). Nonetheless, as from the mid-1980s, Japan began to lose its overall share of OECD import markets in these dynamic goods to many of those same competitors, thereby clearly demonstrating that international competitiveness can be lost (or transferred) just as quickly as it is won. According to indicators published in the World Competitiveness Yearbook (IMD, 1999), Japan's place in the world competitiveness ranking dropped from first to 16th between 1989 and 1999. There are at least three different explanations for this.

First, the Japanese economy went into a tailspin during the 1990s as a result of domestic problems that surfaced when the financial bubble burst. This put a brake on modernizing and new investments by Japanese firms, thereby undermining their competitiveness. One effect of the ensuing recession was that stock prices in 1992 had fallen to the equivalent of half their 1989 level, which meant that Japanese TNCs could no longer finance the bulk of their investments through corporate bonds and bank loans obtained against inflated asset values. The recession also caused a steep decline in profits from their domestic operations in Japan, which negatively impacted the execution of new investment projects, thereby further eroding their competitiveness in domestic operations.

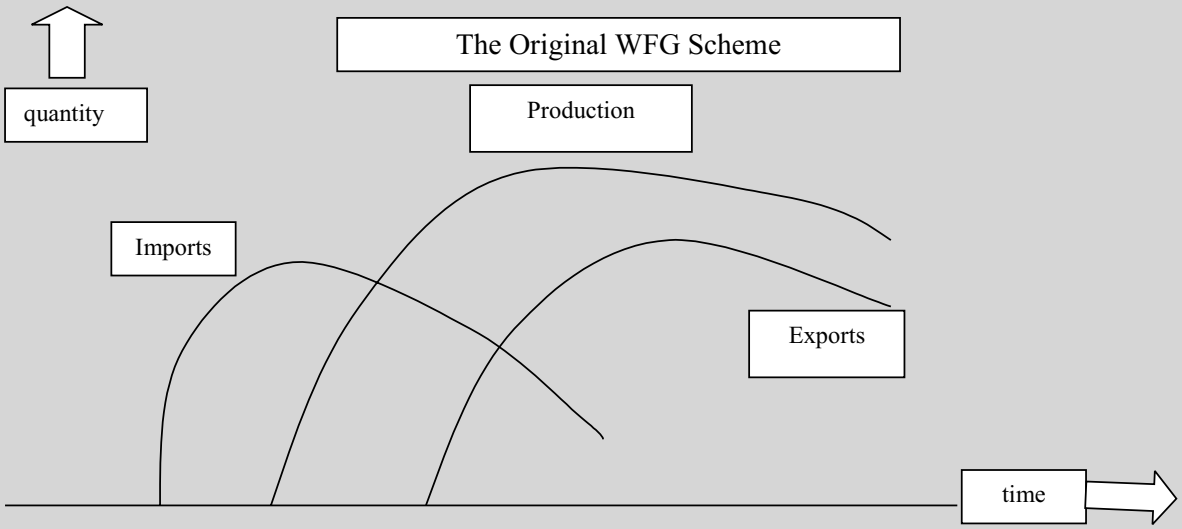
The flip side of Japan's economic problems in the 1990s was the reaction of their competitors. Western firms, especially United States ones, learned from Japan's successes, and many that had suffered from Japanese penetration in their markets now took lean manufacturing to a new level by outsourcing a large part of the manufacturing process to a new and burgeoning group of contract manufacturers.[50] By the early 1990s about a fifth of the total output of American corporations was being produced by non-Americans outside the United States (*The Economist*, 20 June 1998, p. 3). These "factories for hire" have been very successful,

50 Examples of North America-based firms, together with their projected sales for 2000 and location of their headquarters, include Solectron (US$ 13 billion, Milpitas, California); SCI Systems (US$ 8 billion, Huntsville, Alabama); Flextronics International (US$ 3 billion, San Jose, California); and Celestica (US$ 6 billion, Toronto, Ontario) (*Fortune*, 21 February 2000, p. 240C and *Financial Post*, 5 July 2000). Kagami and Kuchiki (2000) have shown how these contract manufacturers have been able to build on Japanese management techniques to make efficiency gains throughout the whole supply chain, particularly in their operations at Guadalajara, Mexico.

Box III.2
THE WILD FLYING GEESE MODEL

The wild flying-geese (WFG) pattern of development has been seen as providing insights into the successive development of Asian countries in the 1980s, following in Japan's footsteps. International development linkage was not, however, the main focus of the original WFG model, and this new application only arose when the East Asian Miracle drew international attention to it. The theory has undergone some reinterpretation since the Asian crises of the 1990s, but it remains a valuable analytical tool for understanding key aspects of the international expansion of Japanese industry.

The flying geese metaphor was introduced in the pre-war period (Akamatsu, 1935) to explain the evolution of the wool industry in Japan, highlighting the sequence of imports, followed by domestic production and, finally, exports. This pattern of development was later conceived in the following manner (see diagram):



(1) For all industrial goods, there is a sequence running from imports, to domestic production, and later to exports;

(2) The time needed for the curves representing domestic production and exports to move beyond that of imports will come earlier in simple goods and later in refined goods; and, similarly, earlier in consumer goods, and later in capital goods;

(3) The import curve falls in proportion to the rise of the domestic production curve. Sooner or later, the export curve will begin to fall in the case of simple or consumer goods, and domestic production curve of these goods will also decline in the future (Akamatsu, 1961,1962).

Wild geese fly in organized flocks forming an inverse V, like airplanes in formation. This pattern of wild geese flight was metaphorically applied to the three time-series curves representing imports, domestic production, and exports of manufactured goods in less-advanced countries. Akamatsu's earlier work, along with that of his followers, concentrated on the theoretical sophistication and empirical verification of the theory. Kojima (1960) introduced important modifications to explain the driving force of this evolutionary process in terms of capital accumulation, and Yamazawa (1990) made detailed studies of the cotton and steel industries in Japan to identify the WFG development pattern empirically.

Box III.2 (concluded)

The wild-geese concept gained international recognition partly because of its similarity to the product cycle (PC) theory, although WFG had to do with the developing-country catch-up process, and PC related to the process of technology diffusion from developed countries. In the course of debate, however, the focus shifted from the evolution of a given industry in a single country to the international linkage of development through foreign investment and trade.

The rapid development of East Asian economies (known as the East Asian Miracle) seemed to fit the WFG paradigm. These countries underwent a remarkable industrialization process, evolving from non-durable consumer goods to capital-goods in WFG fashion. This growth pattern was seen as following the same path as Japan, first by the Asian newly industrializing economies (NIEs), and later by member countries of the Association of South East Asian Nations (ASEAN). The international linkage aspect of the WFG theory was first propounded by former Japanese Foreign Minister, Saburo Okita. In his address to the Fourth Pacific Economic Cooperation Conference (PECC) in 1985, he invoked the WFG model to explain the new pattern of international division of labour evident in the catch-up process in countries of different industrial level (Okita, 1986). Since then, the theory has become increasingly popular, not only with academics but also among officials of government and international organizations, and with business leaders.

The Asian crises of the 1990s led to a reassessment of the WFG model. Some authors expressed serious criticism of the model's validity, while others tried to adapt it to demonstrate its continuing effectiveness. Much of the criticism was baseless in that it simply treated the 1997 crises in the East Asian economies as a failure of the model, without really considering the analytical basis of the theory. Nonetheless, some more penetrating critiques have also been made. In response to these, Kojima has argued that the Asian crisis was caused by a mismanagement of financial liberalization, rather than a problem of industrialization in the real sector, and that the original WFG model remains valid in explaining developing countries' industrialization catch-up process.

The most interesting aspect of the WFG concept is its simplicity and its approximation to empirical events in a specific historical time frame. Its usefulness as an analytical tool for understanding industrial development -its original purpose- remains relevant to the East Asian experience. Unfortunately, it has relatively limited relevance for Latin America and the Caribbean, firstly because the region's countries followed different development paths, and secondly because Japanese FDI did not play a significant role in any of them.

particularly in the electronics industry, often exploiting the rules of origin of the North American Free Trade Agreement (NAFTA) to gain an edge in supplying the United States market from plants in Mexico *(The Economist*, 12 February 2000, p. 61). The recent competitive decline of Japanese manufacturers in the United States, especially in the computer or semiconductor industry, is reflected in their complaints of "increased competition" in that market (JETRO, 1999b, p. 1). Some Japanese firms, such as NEC, are selling their own manufacturing plants there to United States contract manufacturers, with a view to outsourcing from them (*Fortune*, 21 February 2000, pp. 240B-240D).

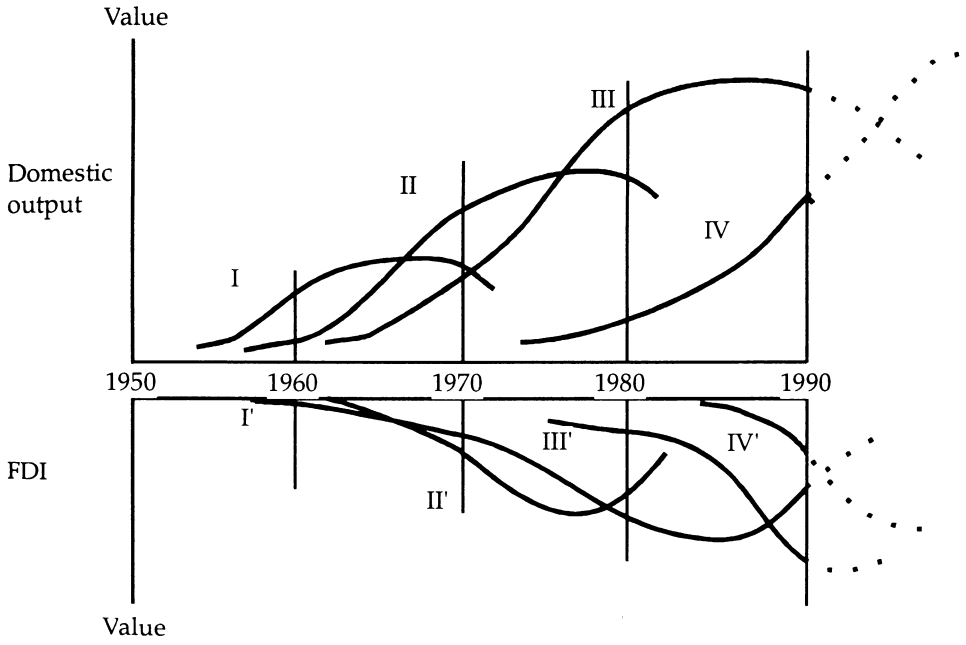
Other competitors, mainly from developing countries, have also managed to gain OECD import market shares from Japan. The more successful imitators of the systemic application of Japanese management techniques, such as South Korea and Taiwan, have managed to undermine the competitive situation of Japanese firms in the computer, semiconductor and consumer electronics industries, and also in the automotive sector, through the progress made by their national corporations (Hobday, 1995, chapters 4 and 5; ESCAP, 1994, chapter IV; Kagami, 1995, chapter 2). In other countries, such as Malaysia, Singapore, Thailand, and China, as well as Ireland and Mexico, increased use of export processing zones (and science and technology parks in Asia) has enabled transnational corporations to establish and expand internationally integrated production systems, including contract manufacturers, and thereby cut into the lead enjoyed by the big Japanese exporters (Lall, 1998b, Hobday, 1995, chapter 6; ESCAP, 1994, chapters II and V; Mortimore, 1998c). In brief, part of Japan's problems stemmed from its internal organization, while another part came from the reaction of its competitors —old and new alike, transnational and national— to its success in the international market.

Figure III.3
JAPAN: STRUCTURAL UPGRADING AND FDI

Stages of industrial upgrading: Sequential FDI outflows:

I. Driven-driven industrialization
II. Heavy and chemical industrialization
III. Assembly-based manufacturing
IV. Innovation-driven flexible manufacturing

I'. Low-wage-seeking FDI
II'. Resource-seeking FDI
III'. Efficiency-seeking FDI
IV'. Strategic asset-seeking



Source: Based on Terumoto Ozawa, "Foreign direct investment and structural transformation: Japanese as recycler of market and industry", *Business and Contemporary World*, No. 5, 1993, quoted in United Nations Conference on Trade and Development (UNCTAD), *World Investment Report, 1994: Transnational Corporations, Employment and the Workplace* (UNCTAD/DTCI/10), Geneva, 1994. United Nations publication, Sales No. E.94.II.A.14.

Thirdly, part of the decline in Japan's international competitiveness as measured by the Competitive Analysis of Nations (CAN) software actually represents a shift of productive capacity by Japanese TNCs to more convenient offshore locations. In this sense, a loss of international competitiveness for Japan does not necessarily imply a loss of competitiveness for Japanese firms, as they continue to service export markets from offshore sites. This aspect of the interrelationship between the Japanese industrialization process, its export successes and FDI outflows is captured by the original "wild flying geese" (WFG) model (Box III.2), and its updated and reoriented versions (Ozawa, 1992, 1993). The key idea in this model is that the changes in Japan's international competitiveness reflect structural transformations taking place in its economy. International competitiveness emerges as a reflection of a consolidated national industry exploiting local competitive advantages; over time, however, these degenerate in existing industries and re-emerge in new ones. Ozawa identifies four stages of industrial upgrading in Japan during the second half of the twentieth century: labour-driven industrialization, heavy industry and chemicals, assembly-based manufacturing and innovation-driven flexible manufacturing (see figure III.3) —accompanied by corresponding phases of outward FDI flows.

In terms of exports, Japan's initial success in factor-based industrialization subsequently generated strong export flows in low-wage, labour-intensive manufactures, such as textiles and apparel, together with natural resource-based manufactures, including steel

and chemicals (Mortimore, 1993). As the country's industrialization process shifted towards a stage of industrial development that relied on large-scale investments, more assembly-based, capital-intensive exports, such as electronics and automobiles, were generated. These compensated for the loss of export competitiveness in labour-intensive manufactures as local wages rose and took the place of natural resource-based manufactures. Shipbuilding and the design and construction of chemical plants in foreign countries provided other major sources of export earnings. In fields as varied as toys, sewing machines, watches, photographic equipment and scientific instruments, some Japanese corporations were able to continually upgrade their products, such that new technology or innovation offset declining wage-based competitiveness and enabled them to defend their export market shares. The industrialization process in the Japanese economy continued to evolve toward innovation-driven flexible manufacturing, with new R&D-intensive exports being generated in sectors such as machine tools. Finally, the export of manufactures from the Japanese economy became increasingly difficult because of competitive pressures from new players and the response of its original competitors; as a result, Japan's overall international competitiveness declined.

As regards FDI outflows, Japan's initial foreign investment was aimed at securing its natural resource supplies. Japanese firms also attempted to maintain their exports of light manufactures by investing in offshore assembly facilities located in lower-wage developing countries. The increasing internationalization of manufactured goods exporters later expresses itself in efficiency-seeking FDI to establish integrated regional and international production systems aimed at maintaining international competitiveness in capital-intensive exports, such as electronics and automobiles (Hamaguchi and Saavedra-Rivano, 1999). These exporters progressively establish internationally integrated production systems in order to consolidate their competitive advantage in all regions of the international market. Lastly, something similar happens with regard to capital goods and R&D-intensive products, such as machine tools. The difference here is that strategic alliances with the technology-generating firms are often more important than implementing or consolidating internationally integrated production systems.

This highly simplified outline of the interrelationship between Japan's industrialization (or industrial upgrading) process and its international competitiveness provides important insights into the nature of Japanese outward FDI, and is an extremely useful complement to official FDI statistics.

Although official Japanese FDI statistics contain deficiencies that detract from their power to explain Japanese outward investment, they do provide a general orientation and are thus necessary but not sufficient. The accumulated stock of Japanese outward FDI during 1965-1998 shows, surprisingly, that Latin America was once the single most important region, accounting for over 25% of the total in 1965. That soon changed, however, and during this period the stock of Japanese FDI in Latin America (about 12% by 1998) was surpassed not only by that of North America (rising from 25% to 44% of the total), but also Asia (which grew from 19% to 28% in 1977-1983 before slipping to about 20%) and Europe (which advanced from 3% to 24% in 1973 before retreating to around 20%). The Japanese FDI stock in the Middle East collapsed from 23% in 1965 to 1% in 1998. These figures suggest that the focus of Japanese FDI during this period was North America, Asia and Europe, while there was a major withdrawal from the Middle East and a relative decline in Latin America and the Caribbean. Regional sales data for the overseas affiliates of Japanese firms in 1996 generally support this regional distribution, with North America (39%) in the lead, followed by Asia (27%) and Europe (25%) in the middle, and Latin America and the Caribbean a long way back at 4% (MITI, 1999).

Figures for Japanese outward FDI flows in the manufacturing sector show that the Latin American and Caribbean share has become even less significant than what is suggested by the accumulated all-sector FDI stock. Table III.2 shows that in the early 1970s, Latin America and the Caribbean (30% of total Japanese FDI outflows) was surpassed only by Asia (40%) in terms of regions receiving (then very small) Japanese FDI flows in the manufacturing sector. North America (16%) and Europe (6%) were far behind. As Japanese outward FDI in the manufacturing sector exploded thereafter, however, to reach US$ 22.7 billion a year in 1995-99, North America (43%), Asia (27%) and Europe (23%) became the main targets, as Latin America's share plummeted (5%) and the region ceased to be a major target for the international expansion of Japanese manufacturing firms.

Figure III.4 shows that manufacturing output by Japanese corporations located in Asia is much more export-oriented (48.6% of total sales) than that of their counterparts in Latin America (26.6%). Exports by Japanese firms located in Asia go mainly to Japan (25.3% of total sales) and other Asian countries (15.2%), while the much lower overall level of exports from those located in Latin America is sent mostly to Japan (5.6%)

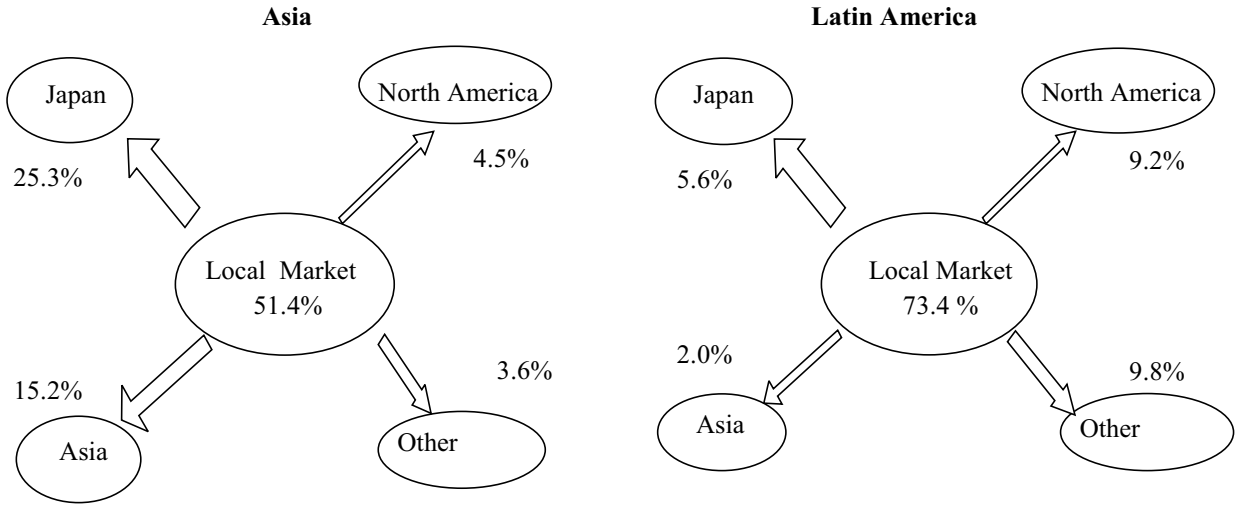
Table III.2
JAPAN: OUTFLOWS OF FDI IN THE MANUFACTURING SECTOR, BY REGION, 1970-1998

Period (fiscal years)	Average annual FDI outflow (US$) billions)	North America (%)	Asia (%)	Europe (%)	Latin America[a] (%)
1970-1974	0.7	16	40	6	30
1975-1979	1.4	20	34	7	19
1980-1984	2.2	40	29	10	15
1985-1989	8.8	62	19	14	3
1990-1994	12.6	41	29	21	4
1995-1999	22.7	43	27	23	5
1995	19.4	40	43	11	2
1996	21.0	43	33	14	7
1997	19.6	43	38	13	3
1998	12.0	36	30	23	3
1999	41.4	46	10	37	6

Source: Institute for European-Latin American Relations (IRELA), "Foreign direct investment in Latin America: Perspectives of the major investors, Washington, D.C., 1998, p. 87, updated with Ministry of Finance data.

[a] Includes offshore financial centres.

Figure III.4
SALES BY JAPANESE MANUFACTURING AFFILIATES IN ASIA AND LATIN AMERICA, FY 1998



Source: Ministry of International Trade and Industry (MITI), *White Paper on International Trade*, 1999. Tokyo, March 1999.

and North America (9.2%), with a relatively minor amount going to all other countries (9.8%). This suggests that Japanese manufacturing enterprises have much more extensive regional systems of integrated production in Asia than in Latin America and the Caribbean.

In a comparative analysis of where transnational corporations (TNCs) have concentrated their international operations among non-industrialized countries, table III.3 (MITI data) shows that Japanese, American and European (German) transnationals have pursued different patterns of geographical specialization, as measured by their sales, number of firms and employees in 1996. Japanese TNCs have tended to specialize geographically in East Asia, while their United States counterparts have concentrated in Latin America, and German ones have focused on Russia and Central Europe. In Latin America, even the operations of German transnationals are more significant than those of their Japanese counterparts, according to these figures.

Opinion surveys run by the Japan Bank for International Cooperation show that just two Latin American countries are considered among the most promising FDI destinations for the medium and longer term (Kaburagi, Noda and Ikehara, 2000). Only Brazil and Mexico feature among the top 10 destinations reported by the most internationally oriented Japanese manufacturing corporations in 1995-1999; moreover, preference for these countries is mainly confined to the automotive sector, and even then they tend to be at the bottom of the list. It is interesting to note that Mexico was also ranked sixth in a similar survey of small- and medium-sized Japanese manufacturers in 1999, which suggests that the larger corporations that already possess internationally integrated production systems involving Mexico may be convincing their Japanese suppliers to accompany them in that country, presumably to meet the requirements of the NAFTA rules of origin.

Latin America and the Caribbean is playing an increasingly marginal role in Japan's foreign trade. In 1970 the region accounted for 7.3% of Japan's total imports and absorbed 6.2% of its exports, but by 1990 those shares had fallen to 4% and 3.1%, respectively (Kuwayama, 1997). By mid-2000, the region's share of Japanese exports had recovered to 4.5%, but its import share had declined to 3.1%. More than half of Japan's imports from the region were concentrated in just six commodities (aluminium, base metal ores and concentrates, iron-ore concentrates, coffee, fresh fish and copper) sourced primarily from Brazil and Chile. Exports went mainly to Panama (manufactures) and Mexico (inputs for the local assembly of manufactured goods).

Japanese outward FDI is undertaken by a variety of different agents, and the leading agent has changed over time. An OECD study claims that:

> During the early post-war period, trading companies made a significant contribution to Japan's exports of relatively standardized manufactures, such as steel textiles and sundries. But with the growth of more sophisticated and highly differentiated consumer goods industries, notably automobiles and electronics products, dependence on trading companies began to decline as manufacturers set up their own sales networks overseas. … although their role as export agents for Japanese manufacturers diminished, the trading companies started to increase third-country or offshore trade intermediation. … the general trading companies have turned into overseas project organizers for large-scale ventures in resource and regional development. Moreover, they have come to play a key role in helping Japanese manufacturers, and particularly small- and medium-sized enterprises, set up shop in labour-abundant developing countries to produce technologically-mature, labour-intensive products by investing jointly and providing needed infrastructural services. (OECD, 1984, p. 13, Italics added)

Thus, the first two cycles of Japanese outward FDI in the context of the country's outward-oriented industrialization process (figure III.3) were carried out by or channelled through the leading trading companies, such as Mitsubishi, Mitsui, Itochu, Sumitomo, Nissho Iwai and Marubeni, while the later stages were implemented by the more independent manufacturers and exporters of automobiles (e.g., Toyota and Honda), and electronics (Sony, Matsushita, Hitachi, NEC, Fujitsu and Canon).[51]

Two of the trading companies' main strengths were their influence over imports entering Japan, given their control over national distribution, and the usefulness of their international sales systems in helping small and

51 Some major electronics and automotive firms (e.g., NEC in the Sumitomo group, Nissan in the Fuyo group) are elements of general trading companies; others (Hitachi and Toyota), while formally part of general trading companies, have more independent relationships with them.

Table III.3
GEOGRAPHICAL SPECIALIZATION OF THE INTERNATIONAL SYSTEMS OF JAPANESE, UNITED STATES AND GERMAN CORPORATIONS OUTSIDE INDUSTRIALIZED COUNTRIES, 1996

Home Country	Sales (US$ billion)	Number of firms	Employees
(a) East Asia			
Japan	298	5 600	1 500 000
United States	222	2 500	940 000
Germany	27	1 400	180 000
(b) Latin America			
Japan	39	800	150 000
United States	224	3 400	1 530 000
Germany	43	1 100	280 000
(c) Russia & Central Europe			
Japan	2	80	60 000
United States	18	400	160 000
Germany	31	2 200	3 800 000

Source: Ministry of International Trade and Industry (MITI), *White Paper on International Trade, 1999*, Tokyo, March 1999, p. 17.

medium-size manufacturers kick-start their internationalization processes. The trading companies focused most of their initial FDI on Asia and Latin America, either to secure sources of raw materials for Japanese industry or to establish low-wage export-processing zones for the investments of Japanese manufacturers, which relied on the trading companies for these reasons. The trading companies clearly lost much of their international competitiveness in light and natural resource-based manufactures many decades ago, and recent attempts to restructure have "lacked conviction" (*The Economist*, 4 November 2000). The leading exporters of electronics, automobiles and capital goods grew stronger and focused most of their FDI on their main markets (North America, Europe) and on neighbouring Asia. They have retained much of their world-class status in those industries by implementing JMT and undertaking major R&D activities in order to hold on to their technological leadership. Several have also made recent attempts to adapt to "new economy" activities in their international operations.[52]

This overview of Japanese FDI outflows to the world generally, and to Latin America and Asia in particular, clearly shows that no single information source provides all the data and details required to understand the determinants of that investment. Relevant factors include exchange rates, official statistics on FDI stocks and flows, and data on the operations (sales, sourcing, number of firms, employees) of Japanese firms, taking into consideration the different agents involved in outward FDI, and all set in the context of Japan's industrialization process. The data reviewed so far confirms that in internationalizing their manufacturing operations in developing countries, Japanese TNCs have tended to specialize geographically in Asia (39% of total outward FDI during 1951-1990) rather than Latin America (15.2% during the same period) (Jun and others, 1993).

All of this makes Japan a very interesting case. Its success has been most evident in the automotive and the electrical machinery and electronic equipment sectors, which are the two most internationalized Japanese industries (Hamaguchi and Saavedra-Rivano, 1999). Considering Japanese manufacturing industry as a whole, 13.8% of total production was located abroad in 1998, with foreign production shares as high as 31.6%

52 Sony is being reorganized to extend its advantages in digital convergence through “coopetition” with foreigners in strategic alliances and venture-capital operations (*Fortune*, 1 May 2000, pp. 143-157). Matsushita is using the Internet to increase efficiency among its suppliers (*The Economist*, 15 April 2000, p. 71). Toyota is using its Gazoo.com site to enter e-commerce, and it has become the second largest shareholder in a new telecom company (KDDI), established to link up its financial services (*Business Week*, 1 May 2000, pp. 143-146).

and 24.1% in the transport equipment and electric machinery industries, respectively. The largest Japanese corporations by foreign assets (table III.4) include some of the more dynamic manufacturers mainly in the automotive and electronic equipment sectors (e.g., Toyota, Honda, Sony, Matsushita, Hitachi), together with the dominant trading companies (e.g., Mitsubishi, Mitsui, Itochu, Sumitomo, Nissho Iwai and Marubeni). The number of Japanese companies among the 100 largest TNCs, as measured by foreign assets, rose from 12 to 17 in 1990-1998, Japan being the only member of the Triad economies (North America, Europe, Japan) to register an increase. Toyota and Mitsubishi Motors were among the 10 largest risers during 1997-1998, while Nissho Iwai, Itochu and Nissan were some of the largest fallers. Many of these Japanese transnationals operate in the electronics and automotive industries, which were the two leading sectors among the 100 largest TNCs, accounting for almost one third of total foreign assets. The Japanese corporations included in the list generally have transnationality indices below the average (53.9%).

In order to gain further insights into the evolution of Japanese FDI generally, and in Latin America in particular, the following sections provide a detailed analysis of the strategies used by some of the leading Japanese companies in these dynamic industries.

Table III.4
LEADING JAPANESE CORPORATIONS BY FOREIGN ASSETS, 1998
(Billions of dollars and percentage)

World rank 1998	World rank 1990	TNI 1998[a]	Corporation	Sector	Foreign assets	Total assets	Foreign sales	Total sales
					(Billions of dollars)			
6	29	50.1	Toyota	Automobiles	44.9	131.5	55.2	101.0
18	63	60.2	Honda Motor Co. Ltd.	Automobiles	26.3	41.8	29.7	51.7
20	15	59.3	Sony Corporation	Electronics	n.a.	52.5	40.7	56.6
24	18	32.7	Mitsubishi Corporation	Trading	21.7	74.9	43.5	116.1
25	46	42.6	Nissan Motor Co. Ltd.	Automobiles	21.6	57.2	25.8	54.4
37	22	34.9	Mitsui & Co.	Trading	17.3	56.5	46.5	118.5
45	40	21.5	Itochu Corporation	Trading	15.1	55.9	18.4	115.3
46	n.a.	26.3	Sumitomo Corp.	Trading	15.0	45.0	17.6	95.0
49	71	24.9	Nissho Iwai	Trading	14.2	38.5	9.1	71.6
55	12	38.9	Matsushita Electric	Electronics	12.2	66.2	32.4	63.7
56	n.a.	34.9	Fujitsu Ltd.	Electronics	12.2	42.3	15.9	43.3
58	n.a.	21.4	Hitachi Ltd.	Electronics	12.0	76.6	19.8	63.8
68	68	25.8	Marubeni Corp.	Trading	10.6	53.8	31.4	98.9
88	n.a.	50.6	Mitsubishi Motors	Automobiles	8.4	25.4	16.6	29.1
92	n.a.	52.3	Canon Electronics	Electronics	7.4	23.4	17.8	24.4
93	79	58.2	Bridgestone	Rubber /tires	7.4	14.7	11.3	17.1
100	64	23.3	Toshiba Corp.	Electronics	6.8	48.8	14.5	44.6

Source: United Nations Conference on Trade and Development (UNCTAD), *World Investment Report, 2000. Cross-border Mergers and Acquisitions and Development* (UNCTAD/WIR/(2000)), New York. United Nations publication, Sales No. E.00.II.D.20; *World Investment Report, 1993: Transnational Corporations and Integrated International Production* (ST/CTC/156), New York. United Nations publication, Sales No. E.93.II.A.14; and PT Smart Tbk, "The Asia Week 1000" (http://www.smart-corp.com/event/asiaweek.htm).

[a] The transnationality index (TNI) is calculated as the average of three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

n.a. = not available.

B. THE JAPANESE CHALLENGE TO THE GLOBAL AUTOMOTIVE INDUSTRY: TOYOTA AND HONDA

The growth of the Japanese automotive industry during the second half of the twentieth century was quite spectacular (figure III.5). Between 1965 and 1990 production skyrocketed from below 2 million units to 13.5 million, and exports blossomed from 200,000 units to around 6 million. The export propensity of the automotive industry jumped from 10% in 1965 to 55% in 1985, before declining somewhat thereafter. By the early 1990s the value of automobile sales was equivalent to 31.4% of sales in the machinery industry and represented 13.4% of total sales in the manufacturing sector as a whole. Motor vehicle exports accounted for about 20% of total exports (JAMA, 1998, p. 30). In 1962, Japan's automobile industry ranked sixth in the world in terms of units produced, but by 1980 it had climbed to first place, overtaking Italy (1963), France (1964), United Kingdom (1966), Germany (1967) and the United States (1980) along the way. The success of Japanese automobile exports is particularly evident in the ASEAN countries, where they have acquired a market share of about 80%, and in the United States (around 30%). In response to the trade restrictions that their exports provoked in the United States and European markets, compounded by exchange-rate volatility and, later, domestic recession following the bursting of the financial bubble, Japanese auto TNCs implemented aggressive internationalization strategies aimed at establishing competitive internationally integrated production systems.[53]

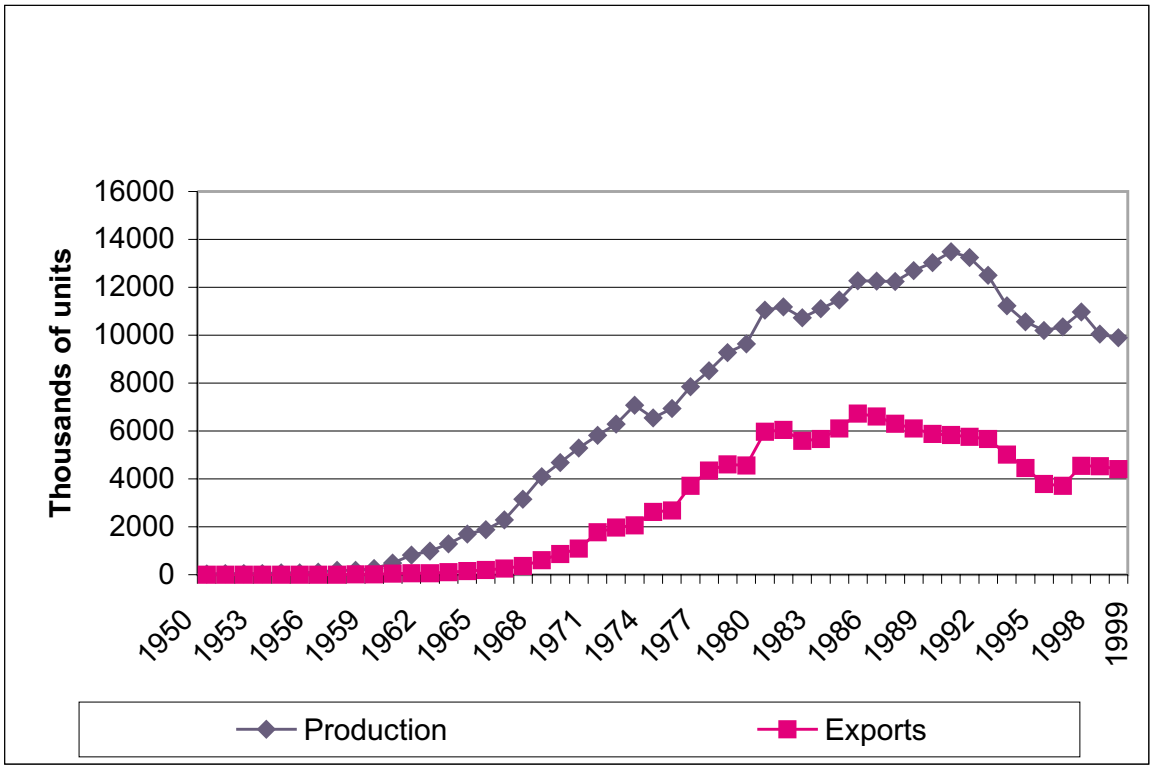
In 1999, the top ten vehicle manufacturers by worldwide sales consisted of five European firms (two from Germany, two from France and one from Italy), three from Japan, and two from the United States that dominated the list (table III.5). These 10 firms accounted for over three quarters of global automobile sales in that year. In the early 1990s, auto-sector TNCs with more internationalized production systems (defined as over 40% of total production located outside their home country) were Ford (58.9%), General Motors (47.6%), Chrysler (45.7%) and Volkswagen (42.8%) (OECD, 1996). Those with moderately internationalized production systems (more than one fifth of total vehicle production located abroad in 1993) included Honda (33.1%), Nissan (31.2%), Fiat (25%), and Renault (23%). Toyota, the third largest motor vehicle manufacturer in 1999, at that time had a production structure that was classified as "not very internationalized". The Japanese automobile industry is one of the major success stories of the 1990s (if not the second half of the twentieth century) especially companies such as Toyota and Honda (Mortimore, 1997). In each of these firms the export cycle from their Japanese production base was followed by internationalization of their production systems via FDI. At the same time, the output for Japan's domestic automotive market shrank from 13.5 million vehicles in 1990 to 9.9 million in 1999.

The success of these Japanese automobile manufacturers was based on superior products, quality and techniques. Following the introduction of the moving assembly line by Henry Ford leading to mass production in the 1920s, the next mainspring for development of the automobile industry in the twentieth century was the "lean production system" pioneered by Toyota. This made economies of scale less crucial for commercial success in the industry (although it was Toyota that stretched them to the limit with models such as the Corolla) and new factors, such as continuous flow manufacturing, constantly improving quality, development of a more efficient supply network, and vehicle customization to better match consumer preferences, became increasingly important. Some of the key elements of the Toyota Production System that reflected Japanese Management Techniques and distinguished it from the original Ford system can be summarized as follows Andersen Consulting, 1994: p.7; "Smoothing the Flow", http://www.global.toyota.com):

- It is based on integrated single-piece production flow with low inventories. Small batches are made just in time.
- Defects are prevented rather than rectified.
- Production is "pulled" by the customer rather than "pushed" to suit machine loading.
- Team work with flexible multi-skilled operators and few indirect staff becomes the basic work organization format.
- Active involvement in root-cause problem-solving is used to eliminate all non-value adding steps, interruptions and variability.

53 It is remarkable that that some of the Japanese auto TNCs succeeded in doing this during the crisis in Japan. Asiaweek commented that "any company that managed to thrive despite the crisis is almost indestructible" mentioning Toyota and Honda by name. *Asiaweek 1000* at http://www.cnn.com/asiaweek/Asiaweek.

Figure III.5
JAPAN: PRODUCTION AND EXPORT OF MOTOR VEHICLES, 1950-1999



Source: Japan Automobile Manufacturers Association Inc. (JAMA).

- Closer integration of the whole value stream is promoted, from raw materials to finished product, through partnerships with suppliers and dealers.

The competitive advantages achieved by Toyota, then copied by other Japanese auto makers, enabled them to make major inroads into the leading automobile markets, firstly through exports and later through FDI. This was the essence of the Japanese challenge to the world automotive industry in the second half of the twentieth century.

In North America in particular, the rapidly growing market shares obtained by Japanese auto TNCs provoked a strong reaction from the United States Government, in the form of voluntary export restraints, which limited their export penetration in the United States market to 1.68 million units in 1981 (rising to a maximum of 2.3 million units in 1985), until they were abolished in 1994. In order to get around these restrictions, Japan's auto manufacturers were forced to invest in new plants in the United States, which resulted in a major change in the composition of production by firm in that country during 1987-1993. While total production of passenger vehicles remained constant in the order of 6 million units, "foreign-owned" domestic automobile production rose from about 0.5 million to over 1.5 million units during 1987-1993 and from 9.1% to 25.7% of the total. Once Volkswagen moved its North American plant to Mexico, foreign participation in United States automobile production consisted entirely of Japanese enterprises, operating either alone or in joint ventures with local producers (Datton, 1991, p. 55). By 1993, Japanese producers controlled nearly 30% of the United States passenger car market (local production plus imports from Japan), and in 1997 the Toyota Camry became the largest selling passenger vehicle in that market. After investing over US$ 16 billion in their North American plants, by 1998 Japanese auto TNCs were producing 2.4 million vehicles and 1.7 million engines, with Toyota (1.1 million vehicles, excluding those produced for General Motors) leading the way,

Table III.5
LEADING MOTOR VEHICLE MANUFACTURERS, BY WORLDWIDE SALES, 1999
(Millions of units)

Company	Production	Company	Production
1. General Motors (USA)	8.3	6. Fiat (Italy)	2.6
2. Ford Motor Co. (USA)	7.2	7. PSA (France)	2.5
3. Toyota (Japan)	5.4	8. Honda (Japan)	2.4
4. Volkswagen (Germany)	4.9	9. Nissan (Japan) a	2.4
5. DaimlerChrysler (Germany)	4.8	10 Renault (France) a	2.3

Source: Toyota Motor Company and Automotive News, 2000.
[a] Renault acquired a 34% holding in Nissan in 1999.

followed by Honda (0.7 million) and Nissan (0.3 million). Whereas Japanese auto TNCs had imported 3.4 million of the 4.1 million vehicles they sold in the United States market in 1986, by 1998 they were importing only 1.3 million out of a total of 3.7 million -in other words, two thirds came from local production. Moreover, about 40% of United States vehicle exports (excluding exports to Canada) were from Honda (25.8%), Toyota (6.6%) and other Japanese automakers operating in that country (see JAMA website http://www.japanauto.com/library/).

In Western Europe there was a similar trend but on a smaller scale. Several European countries (France, Italy, United Kingdom, Spain and Portugal) initially reacted to the Japanese challenge by imposing trade restrictions. The implementation of the European Single Market led to bilateral negotiations between the European Commission and Japan, starting in 1991, aimed at phasing out national restrictions over a transitional period. The initial idea was to allow Japan to export 1.23 million units to Europe annually until 1999, when European Union (EU) commitments to the World Trade Organization (WTO) would require such trade restrictions to be eliminated (the total allowed for vehicle imports was later reduced). As a result, Japanese automobile companies began to invest in local plants, especially in the United Kingdom, with a view to supplying Europe from within. By 1993, Japanese auto manufacturers had captured significant market shares in many European countries either through exports or through local production, or both: Sweden (20.3%), Germany (13.7%), United Kingdom (12.7%), France (4.4%), and Italy (4.2%) (OECD, 1994). Finally, even before the new WTO rules outlawed their trade restrictions, some European governments (e.g., France, Italy) were subsidizing new passenger car sales in order to support some of the local auto makers that were more dependent on national markets (e.g., Renault, PSA-Peugeot Citroen, Fiat). Japanese vehicle production in Europe rose inexorably from 43,200 units in 1985 to 223,200 in 1990 and 777,700 by 1997.

The new element in the Japanese challenge since the mid-1980s has been the progressive establishment of international production systems (Mortimore, 1997). This has been particularly clear in the strategies implemented by Toyota and Honda to expand and extend their international production systems and squeeze additional competitiveness out of their organizational advantages.

The single most important aspect of the Japanese challenge is represented by Toyota's new corporate strategy "to rekindle the killer instinct", involving an investment of about US$ 13.5 billion during the late 1990s. Toyota wanted to "create the industry's first real globally organized player, a company able to use its clout to customize vehicles for regional markets" with an overall annual capacity in excess of 6 million units (*Business Week*, 7 April 1997, p. 104; *The Economist*, 5 March 1997, p. 83-4). Toyota announced its aim of overtaking Ford to become the world's second largest auto TNC (*Business Week*, 21 December 1998, p. 58). Although it has yet to reach 6 million units or overtake Ford, Toyota's successes are impressive. Its April 2000 market valuation of US$ 197.7 billion is by far the highest of all TNCs in the automotive sector; it has the largest market share in Japan and Asia and is achieving record sales in North America and Europe. Its Camry model has been the largest seller in the United States market for three straight years, and its new Yaris model won the Japan Car of the Year Award for 1999-2000 (just as the Prius and Lexus IS had done in 1997-1999 and 1998-1999, respectively). Several of its plants in Japan and North America have topped the production-quality ranking for vehicles sold in the United States market. Its Kentucky, California and Ontario, Canada, plants were voted three of

Table III.6
TOYOTA VEHICLE PRODUCTION[a] BY REGION, 1990 AND 1999

Region	1990 (thousand units)	1990 %	1999 (thousand units)	1999 %
North America (USA and Canada)	382.3	7.8	1 061.9	22.5
Asia (incl. Middle East) & Pacific	199.4	4.0	282.5	5.9
Europe	7.1	0.2	181.5	3.8
Africa	83.8	1.7	68.4	1.4
Latin America & Caribbean	5.1	0.1	16.8	0.4
Overseas Total	677.7	13.9	1 611.0	34.1
Japan Total	4 212.4	86.1	3 118.2	65.9
World Total	**4 890.1**	**100**	**4 729.2**	**100**

Source: Toyota Motor Company.
[a] Excludes Daihatsu production.

the highest quality vehicle plants in North America. Table III.6 shows that while Toyota's production system was heavily based on Japan in 1990 (86.1% of sales), by 1999 the international dimension was becoming increasingly evident (34.1% of sales), following major investments and North America, Europe and Asia.

In this period, Toyota invested a total of US$ 3.3 billion in its North American operations to raise production capacity of the Sienna minivan at its Kentucky plant from 380,000 to 500,000 units; to establish a new US$ 700 million plant in Indiana for T100 pick-up trucks (production capacity 100,000); to start a US$ 400 million engine plant in West Virginia; and to double Corolla production capacity (to 200,000) at the Ontario plant in Canada. This raised Toyota's production capacity in North America to 1.2 million vehicles. Recently, the company also decided to manufacture the Lexus RX300 outside Japan for the first time, at its Ontario plant, shifting production of the Camry Solara to Kentucky and Sienna minivan production to the plant in Indiana. Sequoia SUV production capacity at this plant is also expected to be doubled to 300,000.

A total of US$ 1.9 billion has also been invested in Europe to double production capacity (to 200,000 units) of Carina E sedans and wagons at the Burnaston plant in the United Kingdom, and to set up a new passenger car plant at Lens, France. Yaris production (150,000 units) at that plant is slated to come onstream in 2001, and then total capacity in Europe will exceed 400,000 units.

In Asia, the company has invested US$ 4.6 billion to raise Soluna sedan production capacity (to 190,000) at the Gateway plant at Bangkok, Thailand; to set up an integrated regional supplier network to feed its Thai assembly plants; to set up an engine plant at Tianjin, China; and to open 500 new dealerships in Japan. Production capacity in Japan will rise to over 4 million units, and in the rest of Asia it is set to increase to 600,000 units (equivalent to 25% of the South East Asian market by the year 2000). Toyota has also obtained permission to produce passenger cars in China and diesel-powered family vehicles in India. With these investments extending its international production system, Toyota has clearly thrown down the gauntlet to the rest of automobile industry, and this is provoking reactions from other key players.

The evolution of Toyota's international vehicle production system has been superimposed on its two existing modes of international production. The older of the two consists of assembly plants to supply local markets, mainly in developing countries. The early plants in Latin America, Asia, and Africa all fall into this category, but the small production scale and export volumes generated by such facilities afforded them no significant role in the global extension of the Toyota Production System. The key elements of the new internationally-competitive international production system generally carry the "Toyota Motor Manufacturing" brand-name and involve large-scale production, often generating significant export volumes. These include the NUMMI, TMMK, TMMC and TMMI plants in North America, along with the United Kingdom and French plants in Europe, and the Australian and Thai plants in Asia (see table III.7).

Curiously, Toyota's first overseas production facility was established in Brazil in 1959 to produce a

jeep called the Bandeirante. More than forty years' experience in Latin America failed to convince Toyota to undertake the major investment needed to include Latin America in its international production system, until the Mercosur integration initiative in the 1990s enticed the company to make a major commitment by way of new plants in Brazil and Argentina. Even here the results are surprising, however. The Brazilian plant assembled less than 13,000 Corollas in the period January-November, 2000 (ANFAVEA, 2000), attempting to sell them as quasi-luxury vehicles as they failed to qualify for the local "economical car" programme. In short, until now Toyota has had better investment alternatives in North America, Europe and Asia for expanding its international production system. The question that arises is whether Latin America will be given a higher priority in Toyota's expansion plans, now that the top priority investments of its international integrated production system have been completed.

It is interesting to note that Toyota's challenge has elicited reactions not only from other Japanese automobile manufacturers but also from non-Japanese ones.[54] The reaction by Honda is that of a strong competitor, while Nissan's reflects a weak one. While Honda's sales grew from below 4 trillion to over 6 trillion yen during 1995-2000 (from about US$ 42.5 billion to US$ 57 billion), Nissan saw it sales fall below 6 trillion yen, with production shrinking from over 3 million to under 2.5 million units and its global market share dwindling from 6.6% to 4.9%. Honda reacted to Toyota's challenge with an aggressive expansion strategy involving additional FDI, while Nissan had to seek a foreign saviour and fell into the arms of Renault.

Honda had such automotive manufacturing prowess that by 1995 two thirds of its sales were already outside Japan, rising to 73.6% by 2000. In the 1980s Honda had established an international production system based primarily on the North American market (the Marysville plant for the Accord model, the East Liberty plant for the Civic and the Alliston plant for the Civic, Acura and Odyssey) which it extended to Mexico in 1995 through a facility at El Salto to produce the Accord (table III.8). This model had been the best selling vehicle in the United States market for several years during the 1990s before being overtaken by the Toyota Camry. Honda also extended its international production system to Europe (the Wiltshire plant in the United Kingdom in 1992 for the Accord and the Civic), and to Asia (the Ayuttuva plant in Thailand in 1993 for the C100 and City). By the end of the 1990s, its new strategy was premised on strengthening production for the Japanese market, although it was also expanding production in North America (to 1.16 million units capacity by 2002) and in the United Kingdom, and adding Latin America as the fourth region in its production system through the establishment of its South American headquarters in Brazil, based on the Civic plant at Sumare (it had sales of about 18,000 units during January-November, 2000, according to ANFAVEA, 2000). It plans to export to Argentina, Chile and Peru from its Brazilian base (*Gazeta Mercantil*, 26 November 2000) Thus, Honda looks to be relying more on its South American operations in the future as part of its globalization strategy.

Nissan's recent association with Renault has entailed a rigorous programme of downsizing (closing plants in Japan) and cost-cutting (20% of sales, general and administrative costs), aimed at rapid revival of the company to restore profitability and halve its debt burden by FY2002. The longer term aim is to transform Nissan from a multiregional corporation (see table III.9) into a global one. In the process it plans to reduce its 24 platforms across seven plants to 12 across four, achieving 10 common platforms with Renault by 2010. While Renault's attraction to Nissan was supposedly the good "fit" between their international production systems (Nissan was strong in North America with major plants in the United States and Mexico[55] and Asia, while Renault was strong in Europe and South America), the truth is that Nissan had a relatively well developed production system in Europe with the best-selling Japanese brand. An unforeseen effect of Nissan's problems and its association with Renault has been the consolidation of their joint Latin American production system, where Nissan can take advantage of Renault's operations in Mercosur countries and Renault can make use of Nissan's plants in Mexico.

Thus, some of the major Japanese auto TNCs have had operations of some kind in Latin America for a long time, but they have never shown much interest in seriously expanding them or incorporating them into their global production system. The main reason for this

54 Numerous Japanese auto makers have become linked to the international networks of non-Japanese automobile corporations, usually as a result of situations of distress. Ford owns 33.4% of Mazda, General Motors has stakes of 49% in Isuzu, 20% in Fuji Heavy Industries Ltd. (Subaru) and 10% in Suzuki. Renault picked up 34% of Nissan, while DaimlerChrysler acquired 34% of Mitsubishi Motors and 50% of its European subsidiary, Netherlands Car B.V. (Hamaguchi and Saavedra-Rivano, 1999).

55 In 1999, Nissan formally incorporated its Mexican operations —specializing in the production of the Sentra model— into its North American organization (*Expansión*, 1999).

Table III.7

TOYOTA's INTERNATIONAL PRODUCTION SYSTEM FOR MOTOR VEHICLES, 1999

	Region/country	Subsidiary/affiliate	Vehicles assembled	Production	Exports
(1)	North America-US	New United Motor Manufacturing Inc.-NUMMI (1984)	Corolla, Tacoma	317 129	7 033
	United States	Toyota Motor Manufacturing Kentucky Inc.- TMMK (1988)	Avalon, Camry, Sienna	477 527	24 388
	Canada	Toyota Motor Manufacturing Canada Inc.-TMMC (1988)	Camry, Solara, Corolla	211 081	167 569
	United States	Toyota Motor Manufacturing Indiana Inc.-TMMI (1998)	Tundra	56 164	2 545
(2)	Asia-Australia	Toyota Motor Corp. Australia (1963)	Camry, Corolla	91 003	34 668
	Thailand	Toyota Motor Thailand (1964)	Camry, Corona, Corolla, Hilux, Soluna	84 606	12 202
	Malaysia	Assembly Services Sbn. Bhd. (1968)	Camry, Corolla, Dyna, Hiace, Liteace, Hilux, Land Cruiser, TUV	13 966	-
	Indonesia	PT Toyota-Astra Motor (1970)	Camry, Corolla, Crown, Dyna, Land Cruiser, TUV	26 439	294
	Bangladesh	Aftab Automobiles Ltd. (1982)	Land Cruiser	772	-
	Taiwan	Kuozui Motors Ltd. (1986)	Corona, Tercel, TUV, Hiace	74 910	-
	Philippines	Toyota Motor Philippines Corp. (1989)	Camry, Corolla, TUV	18 455	-
	Pakistan	Indus Motor Co. Ltd. (1993)	Corolla, Hilux	10 116	-
	Turkey	Toyotasa Toyota-Sabana (1994)	Corolla	9 024	-
	Vietnam	Toyota Motors Vietnam Co. (1996)	Corolla, Hiace, Camry, TUV	2 301	-
(3)	Europe-Portugal	Salvador Caetano (1968)	Dyna, Hiace, Optimo	6 020	74
	United Kingdom	Toyota Motor Manufacturing United Kingdom Ltd. (1992)	Avensis, Corolla	178 571	143 363
	France	Toyota Motor Manufacturing France (2001)	Yaris	Under construction	
(4)	Africa- S. Africa	Toyota South Africa Motors (Pty) (1962)	Camry, Corolla, Dyna, Hiace, Hilux, Land Cruiser, TUV	70 379	1 816
	Kenya	Associated Vehicle Assemblers Ltd. (1977)	Dyna, Hilux, Land Cruiser, Hiace	680	-
(5)	Latin America-Brazil	Toyota do Brasil S.A. (1959)	Bandeirante, Corolla	11 528	646
	Venezuela	Toyota de Venezuela C. A. (1981)	Corolla, Dyna, Land Cruiser	9 795	42
	Ecuador	Manufacturera y Armadurias y Repuestos Ecuatorianos (1986)	Stout	655	-
	Colombia	Soc. de Fabricación de Automotores S.A. (1992)	Land Cruiser, Hilux	3 903	1 057
	Argentina	Toyota Argentina S.A. (1997)	Hilux	13 218	4 543

Source: Toyota Motor Company.

Table III.8

HONDA's INTERNATIONAL PRODUCTION SYSTEM FOR MOTOR VEHICLES, 1999

Region/country		Subsidiary/affiliate		Vehicles assembled	Production	Employees
(1)	N. America-U.S.	Honda of America Mfg. Inc.	Marysville, Ohio plant (1979)	Accord	n.a.	7 815
	U.S.		East Liberty plant (1989)	Civic	n.a.	2 788
	Canada	Honda Canada Inc.	Alliston, Ontario plant (1986)	Civic, Acura, Odyssey	n.a.	3 946
	Mexico	Honda de Mexico S.A. de C.V.	El Salto plant (1995)	Accord	n.a.	1 208
(2)	Asia-Thailand	Honda Cars Mfg.	(Thailand) Co. Ltd. Ayuttuya plant (1993)	C100, City	n.a.	1 338
	Pakistan	Honda Atlas Cars (Pakistan) Ltd.	Lahore plant (1993)		n.a.	238
	India	Honda Siel Cars India Ltd.	Gantanbudh plant (1997)		n.a.	805
(3)	Europe-U.K.	Honda of the U.K. Mfg. Ltd.	Wiltshire plant (1992)	Accord, Civic	n.a.	3 114
(4)	L. America-Brazil	Honda Automotores do Brasil Ltda.	Sumare plant (1997)	Civic	n.a.	758

Source: Honda Motor Co.

Table III.9
NISSAN's INTERNATIONAL PRODUCTION SYSTEM FOR MOTOR VEHICLES, 1999

Region/country	Subsidiary/affiliate		Vehicles assembled	Production	Employees
(1) North America- U.S.	Nissan Motor Mfg. Corp. USA[a]	(1959)	Frontier, Xterra, Altima	348 214	5 771
Mexico	Nissan Mexicana SA de CV[a]	Mexico D.F. (1966)	Sentra, Lucino, Pickup, AD Wagon	216 140	9 080
(2) Asia- Taiwan	Yulon Motor Co. Ltd,	(1959)	Sentra, Jin Yong, AD Resort	n.a.	2 600
Thailand	Siam Motors & Nissan Co. Ltd.	(1962)	Sentra, AD Resort	n.a.	321
Philippines	Universal Motors Corp.	Manila (1972)	Pathfinder, Patrol, Terrano, Caravan	n.a.	156
Malaysia	Tan Chsong Motor Assemblies Sdn. Bhd.	K. Lumpur (1976)	Sentra, AD Resort, Vanette, Terrano	n.a.	790
Thailand	Siam Nissan Automobile Co. Ltd.[a]	(1977)	Datsun (Big M)	n.a.	1 196
Philippines	Nissan Motor Philippines Inc.	Santa Rosa (1983)	Cefiro, Sentra, AD Resort, Ad Max, Vanette	n.a.	531
Iran	S.A.I.P.A. Co.	Tehran (1983)	Junior	n.a.	3 000
Iran	Pars Khodro Co.	Tehran (1987)	Patrol	n.a.	2 325
China	Zhengzhan Nissan Automobile Co. Ltd.	Zhengzhan (1995)	Datsun (Pi Ka)	n.a.	2 400
Indonesia	PT Ismac Nissan Mfg.	West Java (1996)	Cedric, Cefiro, Sentra, Terrano	n.a.	-
Pakistan	Ghaodhara Nissan Ltd.	Lahore (1997)	Sentra	n.a.	165
(3) Europe- Spain	Nissan Motor Ibérica SAa	Barcelona (1983)	Patrol, Terrano II, Vanette	105 245	3 900
United Kingdom	Nissan Motor Mfg. (UK) Ltd.[a]	Sunderland (1986)	Primera, Almera, March	288 865	4 200
Spain	Nissan Vehiculos Ind. S.A.	Avila (1995)	Trade, Cabster E, Altson, trucks	n.a.	800
4) Africa- S. Africa	Nissan South Africa (Pty) Ltd.[a]	Pretoria (1963)	Sentra, Sunny Truck, Datsun	n.a.	3 395
Egypt	Nissan Egypt S.A.E.	Six October (1977)	Datsun	n.a.	500
Kenya	Kenya Vehicle Manufacturers Ltd.	Thilea (1978)	Caravan	n.a.	400
Zimbabwe	Willowdale Mazda Motor Ind. Ltd.	Harare (1999)	Datsun	n.a.	740

Source: Nissan Motor Co.
[a] Indicates a major subsidiary as designated by Nissan.

is that they had better investment opportunities in what they saw as the more important markets of North America, Asia and Europe. In Latin America, Mexican operations tend to be efficiency-seeking ones incorporated into the North American system, as opposed to the national market-seeking operations in Mercosur (Mortimore, 1998a and b). Recently, Japanese auto TNCs have been showing more interest in Latin America with a view to establishing a new regional system in South America (Honda); consolidating their relatively limited Mercosur subregional production systems (Toyota directly, Nissan through its new associate, Renault); or further integrating their Mexican operations into the North America production system (Honda and Nissan).[56]

In sum, the Japanese automotive industry is a major contributor to the official statistics on outward FDI, with Toyota and two other Japanese auto TNCs (Honda and Nissan) particularly active in the 1990s. These companies have followed somewhat different corporate strategies, however, while sharing the characteristic of establishing internationally integrated production systems to serve their primary markets (North America, Europe and Asia). Latin America did not play a significant role in those investments, and the internationally integrated production systems do not include any Latin American countries, aside from Mexico, and even then only in a relatively minor way. Japan's automobile manufacturers have concentrated FDI in their priority markets, and Latin America has not been among them. FDI by Japanese auto TNCs in Mercosur is a recent phenomenon, which has been plagued with problems because of continually changing rules and the irregular performance of the industry.

56 Part of the impact of the Japanese auto industry in Latin America occurs indirectly. Mazda designed the legendary Ford plant at Hermosilla, Mexico. Nissan is to start production in Brazil using Renault's infrastructure, while GM plans to bring Suzuki into some of its plants in the region, as it did with Isuzu. Nonetheless, this tends to occur at the request of their western associates, rather than on the independent initiative of the Japanese producers.

C. THE JAPANESE CONSUMER ELECTRONICS INDUSTRY: SONY AND MATSUSHITA ELECTRIC INDUSTRIAL

In In 1970-1985 Japanese electronics firms challenged the global electronics industry in a similar way to their counterparts in the automotive industry. The spearhead of that challenge targeted the consumer electronics sector, but it also embraced semiconductors, computers and telecommunications equipment. One difference from the automotive industry, however, was that by the mid-1990s the once formidable Japanese corporations -at least in the semiconductor and computer fields- seemed disorganized, dismayed and decidedly on the defensive (Borrus, 1997, p. 2), with the major consumer electronics firms reeling from the impact of the recession in Japan. The previous recipe for success among Japan's electronics firms, based on aggressive manufacturing innovation and incremental product improvements, no longer seemed sufficient for the new or renewed competition they now faced. By comparison, the consumer electronics firms appear to have reacted in a more aggressive and ultimately more successful manner.

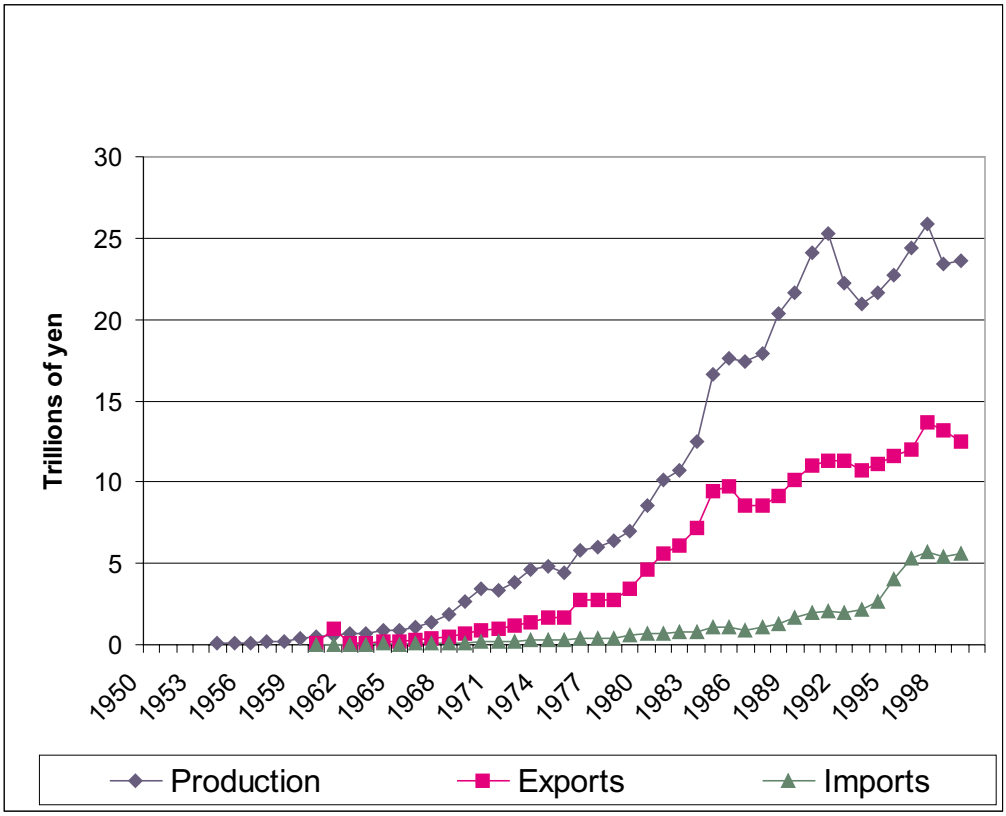
The electronics industry was at the forefront of the globalization process in terms of its reliance on internationally integrated production systems to feed international markets. Many electronics products had become "high-tech commodities" combining the characteristics of mass production with extremely short product cycles and periodic trajectory-disrupting innovations (Ernst, 1997a, p. 6). Heightened competition obliged producers to intensify specialization in their internationally integrated production systems, moving from partial to systemic organization; and it was here that some of the leading Japanese electronics manufacturers stumbled, while their competitors, old (from the United States) and new (from Asia), forged ahead.

This can be clearly seen in the production, export and import figures for the Japanese electronics industry (figure III.6). For much of the 1990s production was flat and the rate of growth of imports (but not their level) was greater than that of exports. In the consumer electronics segment (figure III.7) the competitive situation was more difficult, since production and exports both fell steeply during the 1990s, while imports crept up. Lastly, in the case of colour TVs (CTVs) the spearhead of Japan's successful conquest of international markets (figures III.8 and III.9) the 1990s saw rapid growth in overseas production (rising from 20 to 38 million units) accompanied by a slump in domestic production from 13.2 to 3.5 million units. Furthermore, while the value of exports plummeted from ¥ 207.1 to ¥ 112.6 billion, CTV imports into Japan skyrocketed from ¥ 22.7 billion to ¥ 152.9 billion. Clearly, a huge internationalization effort was in progress, and CTV imports overtook exports in 1996.

These industries are highly concentrated; in 1990 the five largest companies held the following market shares in domestic shipments: 63% in the case of colour TVs, 76% in the case of video cassette recorders (VCRs) and 88% in the camcorder segment (Ostry and Harianto, 1995, p.13, note 2, quoting Hsu). The experiences of two companies Sony and Matsushita Electric Industrial (hereinafter, Matsushita)— very much capture not only the essence of the changing competitive situation among the leading Japanese consumer electronics firms, especially as regards colour television sets, but also the role of FDI in establishing their internationally integrated production systems. Between 1990 and 1998, Sony —the more internationalized of the two— slipped from 15th to 20th and Matsushita —the more domestic market-oriented— slumped from 12th to 55th in the global ranking of corporations by foreign assets (table III.4). Matsushita was 24th and Sony the 30th largest company in the world by sales in 1999, and they took third (Matsushita) and fourth (Sony) place in revenue terms, behind Siemens and Hitachi but ahead of Toshiba and NEC in the *Fortune Global 500* ranking of electronics and electrical equipment companies (http://www.fortune.com/fortune/global500/indsnap/). Meanwhile, AsiaWeek (http://asiaweek/asia1000/listing/) placed Matsushita tenth among the 1,000 largest Asian companies and first in Asia in the appliances segment (http://asiaweek/asia1000/listing/), ranking Sony 11th overall and first in Asia in the consumer electronics segment. In short, these companies were prominent in the global consumer electronics landscape and among the leading players in the colour TV segment.

Sony develops, designs, manufactures and sells various kinds of electronic equipment, instruments and devices for the consumer and professional markets. It had revenues of over US$ 60 billion in 1999 and a global workforce of about 190,000. The company has recently been reorganized into five main subsidiaries: Sony Computer Entertainment, Sony Music Entertainment Inc., Sony Music Entertainment Japan Inc., Sony Pictures Entertainment and Sony Life Insurance Co. Ltd. For several decades it enjoyed continuous success based on innovation in the consumer electronics field

Figure III.6
JAPAN: PRODUCTION, EXPORTS AND IMPORTS OF ELECTRONICS, 1950-2000

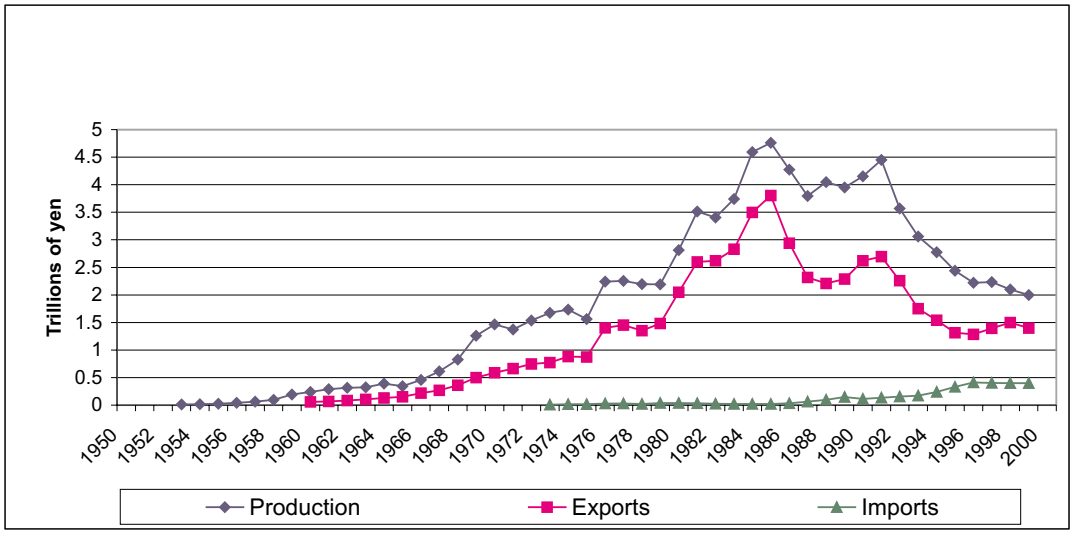


Source: Electronics Industries Association of Japan (EIAJ), *EIAJ Half-Centennial: A Look at 50 Years of the Japanese Electronics Industry*, Gravitas, Inc., Tokyo, May 1998. Updated with data from http://www.eiaj.or.jp/english/index.htm. Since November 2000 this website has belonged to the new Japanese Electronics and Information Technology Industries Association (JEITA).

—transistor radios (1955), the Trinitron TV (1968), the Walkman personal stereo (1979) magnetic recording tape (1979), the compact disc player (1982), the floppy disc (1983), the HandyCam camcorder (1985) the PlayStation (1994), the DVD player (1997) and the Memory Stick (1998)— but it ran into trouble when it entered the motion picture industry by purchasing Columbia Pictures (it wrote off about US$ 3 billion in 1995), and its audio-video lead was eroded by its competitors during the 1990s. Currently, its PlayStation and PlayStation2 products are generating really solid growth (the latter sold 2 million units in three months following its launch in Japan), as is the new FD Trinitron Wega digital TV that has been selling well in Japan and the United States. Nonetheless, Sony is staking its future on the success of its multimedia approach to entertainment —in other words, the combination of hardware, applications and content in a digital format. Despite the company's reorganization to put the emphasis on "entertainment", 50% of its total assets and 65% of its sales in 1999 were still in the electronics field. As part of the reorganization process, Sony announced a stringent downsizing programme to cut staffing by 10% and reduce the number of plants from 70 to 55 by 2003, to enable it to compete more strongly.

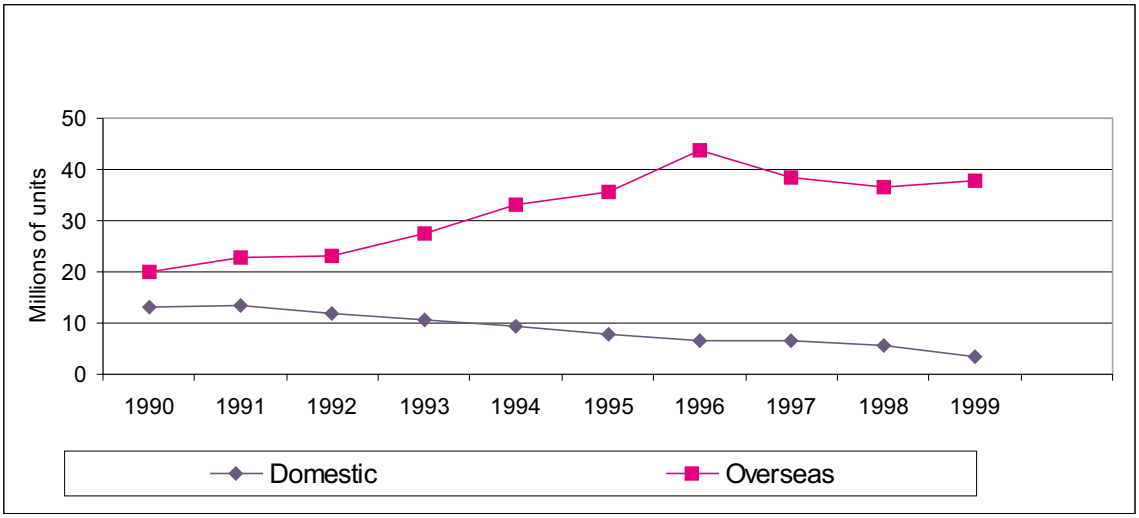
Matsushita Electric Industrial produces electronic and electrical products usually marketed under the Panasonic, National, and Technics brand names (some subsidiaries use the Quasar, Victor and JVC brands). Total revenues exceeded US$ 65 billion in 1999 and it employed a global workforce of around 265,000. The group consists of over 220 companies distributed across 44 countries: five regional headquarters, 43 manufacturing/sales companies, 98 manufacturing companies, 46 sales companies, 12 research organizations and five financial subsidiaries. These cover 16 business clusters and are organized into three major divisions as follows: Consumer Products (video

Figure III.7
JAPAN: PRODUCTION, EXPORTS AND IMPORTS OF CONSUMER ELECTRONICS EQUIPMENT, 1950-2000



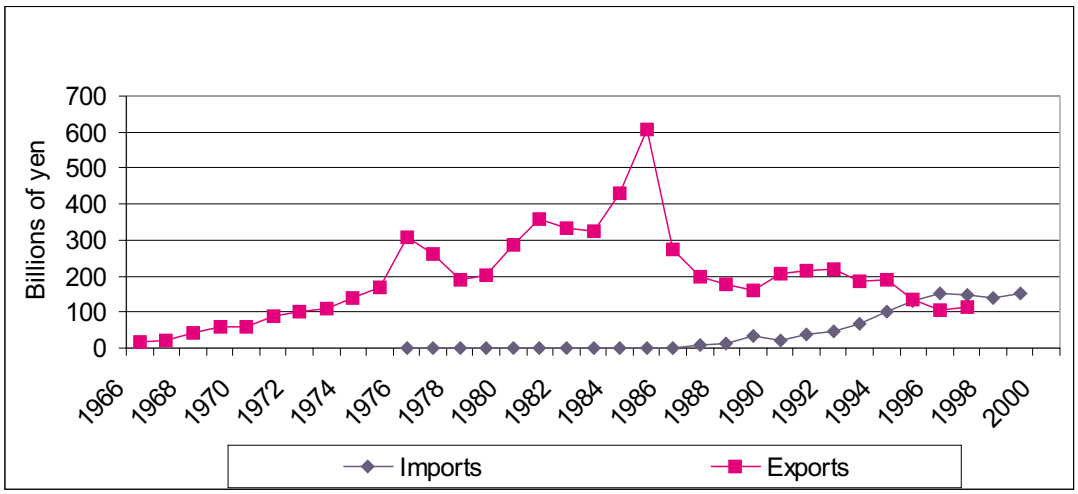
Source: Electronics Industries Association of Japan (EIAJ), *EIAJ Half-Centennial: A Look at 50 Years of the Japanese Electronics Industry*, Gravitas, Inc., Tokyo, May 1998. Updated with data from http://www.eiaj.or.jp/english/index.htm . Since November 2000 this website has belonged to the new Japanese Electronics and Information Technology Industries Association (JEITA).

Figure III.8
JAPAN: DOMESTIC AND OVERSEAS PRODUCTION OF COLOUR TVs, 1990-1999



Source: Electronics Industries Association of Japan (EIAJ), *EIAJ Half-Centennial: A Look at 50 Years of the Japanese Electronics Industry,* Gravitas, Inc., Tokyo, May 1998. Updated with data from http://www.eiaj.or.jp/english/index.htm . Since November 2000 this website has belonged to the new Japanese Electronics and Information Technology Industries Association (JEITA).

Figure III.9
JAPAN: IMPORTS AND EXPORTS OF COLOUR TVs, 1966-2000



Source: Electronics Industries Association of Japan (EIAJ), *EIAJ Half-Centennial: A Look at 50 Years of the Japanese Electronics Industry*, Gravitas, Inc., Tokyo, May 1998. Updated with data from http://www.eiaj.or.jp/english/index.htm. Since November 2000 this website has belonged to the new Japanese Electronics and Information Technology Industries Association (JEITA).

and audio equipment, home appliances and household equipment), Industrial Products (information and communication equipment) and Components. Like Sony, Matsushita has had some notable successes, such as marketing the first colour TV in 1960 and seeing its VHS system win out over Sony's Beta alternative. Nonetheless, it has also had its problems; like Sony, it also had problems with its 1990 entry into the motion picture industry by purchasing MCA, which it sold at a huge loss in 1995. The company introduced a Revitalization Plan in 1994 to restore profitability and enhance cost competitiveness, and it attempted to raise global operating efficiency via supply-chain management cooperation with several overseas mass retailers. Although Matsushita's total work force expanded in the 1990s, the Japanese component shrank from 153,083 in 1995 to 146,675 in 2000. The company has recently defined its new strategic business areas as optical discs, mobile communication equipment, display devices, semiconductors and digital TVs, and it has had some success with its new Tau series of flat-screen digital TVs.[57]

Sony and Matsushita are two of the world's leading CTV manufacturers (the latter selling under the Panasonic brand); in fact according to Sony itself, they are ranked first and third, respectively, and share the top positions in many of the most important regional markets such as the United States, Europe, Japan and elsewhere ("Other") (table III.10). Both companies have made significant efforts to establish and consolidate their international production systems.

Television manufacture is a very important activity for Sony; in fact, TVs are the only individual product it classifies as a sales segment in its own right (table III.11). During the 1990s, Sony saw TVs rise from less than 15% of total sales in 1991 to 18% in 1995, before slipping back to 15% again by the first quarter of 2000. Sales of audiovisual equipment generally lost ground to both Information and Communications activities and Components. Total sales went through a trough in the early 1990s, falling from 3.696 to 3.027 trillion yen between 1991 and 1995 (from about US$ 32 to US$ 27 billion), before recovering to 4.355 trillion yen in 1999 (about US$ 38 billion). The domestic-overseas sales split remained roughly constant at 28%-72% (table III.12), with the United States market holding firm (29%) as the European market softened and "Other" strengthened its share.

57 See "Panasonic Announces New Advanced Television Product Line", (http://www.panasonic.com/pressroom), Panasonic Press Release, July, 2000.

Table III.10
MARKET SHARE RANKINGS OF TOP THREE COLOUR TV MANUFACTURERS, BY REGION, 1999

	World	United States	Europe	Japan	Other
1st	Sony	Sony	Philips	Sony	Sony
2nd	Philips	Philips	Sony	Panasonic[a]	Panasonic[a]
3rd	Panasonic[a]	Thomson	Panasonic[a]	Toshiba	Philips

Source: Kunitake Ando, "Strive for New Growth", Sony Corporation website at http://www.world.sony.com.
[a] Panasonic is one of the brands of Matsushita Electric Industrial Co.

Table III.11
SONY: SALES BY SEGMENT, 1990-1st QUARTER, 2000
(Percentages and billions of yen)

Segment:	TVs	Video equipment	Audio equipment	Components	Information Commun.	Total (billion yen)
1991	14.9	24.6	23.9		36.6	3 696
1992	15.1	22.8	24.1		38.0	3 929
1993	15.9	20.8	23.2		40.1	3 993
1994	16.6	17.9	22.5		43.0	3 734
1995	18.0	22.6	29.7	16.0	13.7	3 027
1996	16.9	22.3	27.4	16.9	16.5	3 283
1997	17.9	20.8	26.2	15.7	19.4	3 930
1998	16.2	19.9	25.8	17.7	20.4	4 377
1999	16.1	22.3	24.8	16.0	21.0	4 355
1st Q. 2000	15	22	19	18	26	

Source: Sony Corporation, Annual Reports.

Table III.12
SONY: SALES BY MARKET, 1990-1st QUARTER 2000
(Percentages and billions of yen)

Market:	Japan	Overseas	United States	Europe	Other	Total (billion yen)
1991	27.7	72.3	28.6	27.5	16.2	3 696
1992	26.9	73.1	28.5	27.5	17.1	3 929
1993	25.8	74.2	30.4	26.0	17.8	3 993
1994	27.4	72.6	30.9	22.3	19.4	3 734
1995	27.6	72.4	28.9	22.7	20.8	3 027
1996	30.0	70.0	27.4	23.0	19.6	3 283
1997	28.1	71.9	29.0	23.0	19.9	3 930
1998	27.3	72.7	31.1	23.2	18.4	4 377
1999	28.1	71.8	31.8	24.5	15.6	4 355
1st Q, 2000	28	72	29	22	21	n.a.

Source: Sony Corporation, Annual Reports.

Sony had successfully built fully integrated local manufacturing systems in Japan, North America, Europe and Asia, ranging from design and materials and parts procurement to cathode ray tube (CRT) production and the assembly of finished products such as colour TVs and displays. The North American component of Sony's international integrated production system is the most important. Sony entered the United States market in 1960, establishing its first major overseas operation in New York as Sony Corporation of America, which today has a work force of just under 26,000. In 1972 it began to manufacture Triniton TVs in the United States, and over the next 30 years the company developed a major electronics manufacturing base. Overall it has invested about US$ 3.3 billion in its North American operations, which now account for nearly two-thirds of Sony Corporation of America's US$ 19.1 billion total sales (FY2000).

The North American system is based on two main manufacturing nodes: the Sony Manufacturing Center at San Diego, California, linked to Mexican assembly operations in Tijuana; and the Sony Technology Center near Pittsburgh, Pennsylvania. The San Diego facility has been rated as one of top 10 manufacturing plants in the United States. Overall, Sony has invested over US$ 1 billion in its San Diego operations and a further US$ 400 million in its Mexican plants. At San Diego it employs 4,000 people and has an annual production capacity of 6 million colour TVs and CRTs. The San Diego plants export the world's most advanced Sony picture tubes to Mexico, Brazil, the United Kingdom, China, Malaysia and Japan. The FD Trinitron Wega HDTV was designed, developed and manufactured in the San Diego/Tijuana region. Several operations in Mexico employing a total of 10,000 people are integrated into the San Diego manufacturing node: Sony de Tijuana Este (over 3 million TV units per year, plus computer displays, components and set-top boxes); Sony de Tijuana Oeste (VCRs, PlayStation, cellular phones); Sony de Mexicali (TVs and components); and Sony Magnético de México (audio tapes, floppy disks and lithium-ion batteries). Sony's other main manufacturing node is the Sony Technology Center near Pittsburgh, which claims to be "the only television manufacturing facility in the world capable of going from sand to glass to cathode ray tube to completed television set in one location."[58] Over 1 million rear projection TVs have been manufactured there. By 2000, Sony had United States market shares of 10.4% for colour TVs, 9.6% for combos (CTVs with integrated VCRs) and 27.5% for projection TVs. The Mexican operations are playing an increasing role in the North American manufacturing system.

The second major component of Sony's international production system is in Asia, where 38 companies, spread across 15 countries, account for 25% of the company's total production volume. Sony's Asian operations are a mixture of local market assemblers (China, Vietnam and India) and specialized export platforms. In 1962, the company opened regional sales headquarters in Hong Kong, and its first manufacturing operation began in Taiwan in 1967. Following that, new regional headquarters were established in Singapore to coordinate the Asian supply network, and production facilities were set up in Korea, Malaysia, Thailand and Indonesia. Nonetheless, the bulk of CTV production takes place at the Sony TV Ind. (M) Sdn Bnd operation in Malaysia.

In Europe, Sony established its regional integrated production system in evolutionary fashion, firstly setting up Sony Overseas (Switzerland) in 1960 to coordinate sales in Europe. An early attempt to establish a manufacturing base in Ireland in 1962 was unsuccessful and the plant was closed in 1968. Sony did establish itself successfully in the United Kingdom, however, and eventually produced more than 10 million TVs and CRTs at its plants in Wales. Its other major TV manufacturing facility in Europe was established in Barcelona, Spain, where it produced over 3 million units. Although a third TV assembly plant was set up in Germany, the main export operations were carried out from the facilities in Wales and Spain. Other specialized operations were established in France (audio and video cassettes), Austria (optical storage disks, compact disks), Italy (audio cassettes) and Hungary (VCR, CD players).

Apart from its substantial operations in Mexico, which form part of the North American manufacturing centre, Sony has never had much of a network in Latin America. With a regional headquarters located in Miami, it established a sales and marketing centre in Panama in 1970, and a sales and assembly operation in Brazil in 1972. Its operations in the Manaus industrial zone assembled colour TVs (over 1 million annually), audio equipment, car stereos and plastic molding for the local market. The main feature of Sony's operations in Latin America (aside from its Mexican plants), is the use of free zones to import its products into national markets (Colon, Panama; Ushuaia, Argentina; Iquique, Chile; Manaus, Brazil; etc.). Sony has shown little interest in incorporating Latin America into its

58 "Sony Technology Center Produces 1 millionth Projection TV", Sony Engineering and Manufacturing News Release, 13 May 1999.

internationally integrated production system, and its investments in the region are essentially aimed at national market access.

Matsushita, by contrast, has a more complex international system in which four divisional companies of Matsushita Electric Industrial Co., together with 11 of its Japanese subsidiaries, have a total of over 220 (listed) foreign subsidiaries employing more than 265,000 people in 44 countries. Overall sales declined from 7.45 to 6.624 trillion yen (from about US$ 65 to US$ 59 billion) in 1992-1994, before recovering to 7.3 trillion yen, or about US$ 69 billion, in 2000. It is difficult to separate TV production from other activities as it is subsumed under Consumer Products in Matsushita's accounts, but overall sales by the Consumer Products Division slipped from 44.2% to 41.3% of total sales in 1994-2000 (table III.13). The proportion of domestic to overseas sales stayed roughly constant at 50% during this period (table III.14), with the European market displaying some momentum (rising from 9.6% to 12.4% of total sales). The Americas and Asia remain more important in sales terms, however.

The North American arm of Matsushita's internationally integrated production system consists of 36 subsidiaries —25 in the United States, nine in Mexico and one each in Canada and Puerto Rico. It began in 1959 with the establishment of Matsushita Electric Corp. of America, which today is listed as one of Matsushita's top 10 subsidiaries worldwide. The company has invested over US$ 1.7 billion in local manufacturing facilities employing 24,000 people (19,500 for Panasonic products), which generate sales of US$ 8.1 billion and exports of US$ 366 million (to Europe, Asia and Latin America). Its TV production facilities (with a capacity of 3 million units), like Sony's, are concentrated in the San Diego, California/Tijuana, Mexico area. San Diego is home to the design and engineering centre, the cathode ray tube plant, and components production. Facilities in Tijuana, Mexico are responsible for producing other components (deflection yoke, flyback transformer and tuner) and for final assembly. Production facilities originally located in Chicago and Toronto were moved to the San Diego/Tijuana area in the mid-1980s; and there is another modern CRT plant located in Troy, Ohio. Between 1993 and 2000 Matsushita increased its United States market shares from 2.3% to 7.3% in colour TVs and from 3.4% to 11.3% in the combo segment; its share of the United States projection TV market rose to 7.1%. Operations in Mexico form part of its North American manufacturing centre.

The second major element of Matsushita's internationally integrated production system is located in Asia, where it possesses "extensive local manufacturing" and 119 listed subsidiaries: China (41), Malaysia (19), Thailand (14), Singapore (10), Indonesia (10), Taiwan (8), India (8), Philippines (3), Australia (2), Iran (1), United Arab Emirates (1) and New Zealand (1). Matsushita's first foreign plant, National Thai Co. Ltd., was established in Thailand in 1961. Its TV production is centred on South East Asia, where it has 30,000 employees in Malaysia alone, and China. Of its 10 leading foreign subsidiaries, Matsushita lists six in Asia. These include its regional headquarters —Asia Matsushita Electric (S) Pte. Ltd.— along with two other subsidiaries in Singapore (Matsushita Electronics (S) Pte. Ltd. and Matsushita Refrigeration Industries (S) Pte. Ltd.), two subsidiaries in Malaysia (Matsushita Television Co. (M) Sdn. Bhd and Matsushita Industrial Corporation Sdn. Bhd.) and one in Taiwan (Matsushita Electric Taiwan Co. Ltd.). Its joint-venture CRT plant in China (Beijing Matsushita Colour CRT Co. Ltd.) increased its exports from 10% of total sales in 1990 to about 50% in 1998, and now supplies Matsushita's international network in North America, Malaysia, Indonesia, Philippines, Thailand, Australia, Brazil, and even Japan itself.

The third key element of the company's internationally integrated production system is in Europe, where Matsushita employs 13,000 people in production and sales, manufacturing locally about 50% of what it sells there. Its first European affiliate was established in Germany in 1962, and it now has 55 subsidiaries located mainly in the United Kingdom (15), Germany (14), Belgium (3), Spain (2) and Ireland (2). Its 10 leading subsidiaries worldwide include its European regional headquarters (Matsushita Electric Europe Ltd.), together with another subsidiary in the United Kingdom (Matsushita Electric (UK) Ltd.) and one in Spain (Matsushita Electric España). These are also the two main CTV production bases (a new plant in the Czech Republic also produces TVs).

In Latin America, where Matsushita Electric does not really have a regional system established, regionwide sales amounted to just US$ 1.1 billion in 1998, compared to US$ 600 million in 1986. Its sales headquarters for the Caribbean and the Andean countries is located in Panama, supported from its Miami office. The company's major manufacturing subsidiaries in Mexico are incorporated into its North American production system, as is the case with Sony. There are 11 subsidiaries in the rest of Latin America, concentrated mainly in Brazil (3) and Peru (2), and their basic purpose is to obtain national market access. These mostly produce dry batteries, although colour TVs and components and other products are also produced in Brazil, with some exports to neighbouring countries.

Table III.13
MATSUSHITA ELECTRIC INDUSTRIAL: SALES BY SEGMENT, 1991-2000
(Percentages and billions of yen)

Segment	Consumer	Industrial	Components	Entertainment	Total (billion yen)
1991	n.a.	n.a.	n.a.	n.a.	
1992	n.a.	n.a.	n.a.	n.a.	7 450
1993	n.a.	n.a.	n.a.	n.a.	
1994	44.2	28.0	19.0	8.8	6 624
1995	43.5	28.4	19.3	8.8	6 948
1996	46.0	32.9	21.0	-	6 795
1997	44.8	35.5	19.7	-	7 676
1998	42.6	37.6	19.9	-	7 891
1999	43.1	37.5	19.4	-	7 640
2000	41.3	37.8	21.0	-	7 300

Source: Matsushita Electric Industrial Corporation, Annual Reports.

Table III.14
MATSUSHITA ELECTRIC INDUSTRIAL: SALES BY MARKET, 1991- 2000
(Percentages and billions of yen)

Market	Japan	Overseas	Americas	Europe	Asia/ other	Total (billion yen)
1991	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1992	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1993	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1994	50.8	49.2	n.a.	n.a.	n.a.	6 624
1995	49.2	50.3	23.0	9.6	17.7	6 948
1996	54.9	45.1	15.7	10.6	18.8	6 795
1997	52.7	47.3	16.3	10.9	20.1	7 676
1998	49.3	50.7	18.5	12.0	20.2	7 891
1999	49.1	50.9	19.8	13.3	17.8	7 640
2000	50.7	49.3	19.0	12.4	18.0	7 300

Source: Matsushita Electric Industrial Corporation, Annual Reports.

None of Matsushita's main worldwide subsidiaries is located in the region.

Broadly speaking, Sony and Matsushita Electric Industrial have quite similar structures, share quite similar problems and have followed a broadly similar internationalization process. Each company faithfully reflects the three stages of the internationalization of Japanese electronics corporations. The first phase, up to the early 1980s, consisted of establishing sales subsidiaries in the leading markets, together with somewhat reluctant investment in production bases for markets that restricted imports of finished products from Japan. This was a "mini-Matsus" system (Ernst, 1997b, p. 4). In general, this was a Japan-centric, relatively closed system, in which sophisticated products and components were manufactured in Japan, while lower-end items were assembled for the local market by foreign subsidiaries. Although this system of stand-alone subsidiaries generated increased sales in modified wild-flying-geese fashion, the pace of technological upgrading in the overseas subsidiaries was very slow. In response to a revival of competition from the United States and emerging Asian competitors, the Japanese dual production system was intensified rather than rationalized, and it eventually lost competitiveness (Borrus, 1997, p. 11).

The boost given to Japan's competitors by the sharp appreciation of the yen led its producers to try to increase

efficiency in labour-intensive activities by setting up offshore export platforms in East Asia. This represented the second phase of their internationalization process. In the consumer electronics segment, these investments were heavily concentrated firstly in Singapore, Malaysia, and Thailand, and then later in China, Indonesia, the Philippines and Vietnam. In 1985-1993 nearly half of the total increase of Japanese manufacturing FDI in East Asia was in the electronics industry (Ernst, 1997a, p. 35). By 1993, nearly 60% of all foreign affiliates of Japanese electronics firms were located in East Asia, along with 70% of their overseas employment. Despite this investment in overseas production facilities, the proportion of total sales produced overseas was no greater than among their main competitors.

The third phase in the international expansion of Japanese electronics TNCs occurred in the 1990s as they attempted to establish internationally integrated production systems, characterized by regional specialization and the internationalization of more activities in their value chain. In the new competitive environment, Japanese firms had to compete both in terms of architectural concepts and on low cost —and also simultaneously in at least three major markets: North America, Europe and Asia. In an age of "high-tech commodities", the survivors were those able to get the right product to the highest-volume market segment at the right time (Ernst, 1997a, p. 6), and this had major implications for international production systems, particularly in terms of organization, procurement and the outsourcing of services.

Japan's electronics firms have reacted by establishing regional headquarters in the main markets and concentrating their production in specific nodes (San Diego/Tijuana in North America, Singapore/ Malaysia/China in East Asia and United Kingdom/Spain in Europe). Procurement is now organized on a regional or international basis. Four different procurement patterns can be seen in Asia, for example (see again figures III.6 through 9): a) the parent company in Japan now increases its imports from Asia, of both final products and components; b) major Japanese electronics companies develop much more systematic regional procurement strategies; c) Japanese component suppliers redeploy production to Asia, with some of them starting to develop their own regional production systems, often in close collaboration with local producers; and d) Japanese affiliates in Asia replace some of their component imports from Japan with procurement from regional or local sources (Ernst, 1997b, p. 7). Lastly, the outsourcing of services such as customization, product design and production technology becomes more evident (Ernst, 1997a, p. 55). All of this significantly strengthens the firms' internationally integrated production systems, which in turn gives them a better chance to regain some of the market shares they have lost since the 1980s.

The situation of Japan's electronics corporations in Latin America stands in stark contrast to what is happening in Asia, North America and Europe. In the first place, the substantial operations in Mexico are functionally integrated into the North American market and not Latin America. Operations in Mexico are impressive for many reasons (see box III.3): (i) the TV cluster in Tijuana uses very modern technologies and organizational practices; (ii) the procurement process used by these TV manufacturers is generating increasingly important manufacturing complexes for finished goods and their main inputs (suppliers are mainly local-based foreign companies); (iii) Japanese maquila (in-bond assembly) operations in Mexico grew steadily during 1986-98, to reach 94 in number, accounting for over 40% of all Asian maquiladoras in that country. Japanese firms accounted for 66 of 145 Asian maquila operations in Baja California, where Tijuana is located, and employed 36,833 out of a total of 43,122 people (Estrada, Carrillo and Contreras, 1999). These operations seem to be generating clusters of global suppliers in Mexico partly as a result of NAFTA rules of origin requiring relatively high subregional (i.e., United States, Canadian or Mexican) content (e.g., the local production of cathode ray tubes). It is not exactly clear how this phenomenon is impacting the local industrialization process.

The other operations in Latin America, apart from Brazil, consist mainly of sales offices or minor local-market production bases (making dry batteries, for example). Even in Brazil, operations are small-scale in relation to the size of the economy, and there is a complete lack of any kind of international or regionally integrated production system. This is partly the result of strategic choices made by the Japanese electronics firms, which clearly felt either they had better investment opportunities in Asia, North America and Europe, or that local conditions were not considered appropriate, or both.

International competition in the electronics industry has been intense, and many electronic products have been converted into hi-tech commodities. This has produced a rush to specialize, and to establish and consolidate internationally integrated production systems. Mexico has become one of the main assembly sites for Asian electronics TNCs supplying the North American market. The San Diego/Tijuana colour TV operations suggest that a

Box III.3

COLOUR TELEVISION RECEIVER OPERATIONS IN TIJUANA: CLUSTER OR FLUSTER?

In 1998, 10 countries accounted for nearly three quarters of worldwide exports of colour TVs (SITC, Rev.2 Item No. 7611), and Mexico had emerged as the world's leading exporter with a global import market share of 23.2%. This is far ahead of other countries either market-share gainers, such as Malaysia (7.8%), the United Kingdom (7.4%), France (5.6%), the United States (5.5%), Spain (5.5%), Thailand (5.1%) and China (3.3%); or market-share losers, such as Japan (7.5%) and Germany (3.2%). Mexico is increasing its CTV import share in virtually all markets, although its main focus is North America:

Import market for colour TVs	Mexico's import market share 1985 Percentage	Mexico's import market share 1998 Percentage
World	2.80	23.24
Industrialized countries:	3.51	26.74
- North America	8.49	70.87
- Western Europe	-	0.01
- Other industrialized	-	1.70
Developing countries:	0.17	7.82
- Developing Americas	2.49	27.84

Source: ECLAC, WorldCAN2000.

Mexico has become the leading global site for colour TV production (Carrillo, Mortimore and Estrada, 1999), with many Japanese TV manufacturers transferring plants there from Asia during 1994-1997 (Hosono, 2000, p.18): Mitsubishi and Hitachi moved facilities from Malaysia, JVC from Thailand, Sanyo from Indonesia, and Toshiba from Singapore. In 1998 Mexico supplied 25.4 million of the 25.7 million units produced in North America (Canada and the United States), and it is expected to produce 34.8 out of the 35.2 million TVs forecast for 2003. While demand remains broadly flat at 33.3 million units, Mexico continues to raise its production level (Carrillo and Contreras, 2000).

One city Tijuana was responsible for nearly half (10-11 million units) of Mexico's total CTV exports in 1998; but what stands out more than the volume of its production is the fact that five of the six leading assemblers in Tijuana are Japanese companies:

Company	Number of plants	Local production [a]	CTV production [b] (mililons units)	Number of employees
Sony (Japan)	5	CTV, CRT, DY, components	3.5	6 500
Samsung (R.Corea)	4	CTV, CRT, DY, components	2.5	3 600
Matsushita (Japan)	1[c]	CTV, DY, components	2.2	3 500
Sanyo (Japan)	3	CTV, components	1.2	2 300
Hitachi (Japan)	1	CTV, components	1	1 400
JVC	1	CTV, components	0.5	500

Source: Jorge Carrillo and Oscar Contreras; "Comercio electrónico e integración regional: el caso de la industria del televisor en el norte de México" October 2000, unpublished, and company interviews.

[a] CRT = cathode ray tube, DY = deflection yoke [b] estimated [c] related suppliers have established local operations.

Box III.3 (concluded)

While these production and trade data suggest that CTV activity in Tijuana is evolving from an export platform into more of an integrated manufacturing centre, serious complaints have also been voiced. The Japanese Maquila Association, which represents 70 Japanese firms with total sales of US$ 11 billion and 57,000 employees in Mexico, is quite pessimistic about Tijuana's competitive future (Masafuma Matsunaga, "Presentation to 21st Convention of CANIETI", October, 2000). It complains that Mexico's new income tax regime will push up production costs, that incentives in Mexico are worse than in most other global production sites, and that the country's wage levels are pricing it out of the market. The minimum monthly wage in Mexico is US$ 123.50, compared to US$ 90.60 in China and just US$ 32.30 in Indonesia. Moreover, comparative production costs (Mexico = 100) are stated to be 93 in China and 91 in Indonesia for tuners, and 79 in Indonesia in the case of flyback transformers. From the producers' viewpoint, this suggests that Mexico is becoming steadily less competitive. In addition, the local academic community questions the impact that maquila operations have on the local industrialization process, given that value-added in Mexico, wages notwithstanding, remains very small. It also believes the CTV industry is taking too long to lay down local roots. There is a marked contrast between the evident success of these operations as measured by past international competitiveness (i.e., import market shares) and the opinions of these two interested parties, each of which points to serious but distinct shortcomings.

new kind of manufacturing centre in the context of NAFTA is replacing the existing export platform, based on the simple assembly of imported inputs under production sharing (United States) and maquila (Mexico) policies. Operations in the rest of Latin America are either sales outlets or relatively non-competitive assembly operations, usually aimed solely at supplying the national market.

D. BEYOND TRADING: MITSUBISHI CORPORATION

The Mitsubishi Corporation is an outstanding example among Japanese trading companies, and is still the largest in terms of foreign assets (table III.4), despite dropping from 18th to 24th place in the world ranking during the 1990s. Traditionally, Japanese trading companies operated as members of corporate groups that undertook a wide variety of interrelated tasks —especially import-export activities— and were characterized by group coordination, and even cross-shareholding. They have been key elements in Japan's entry into (and increasing presence in) the international economy over the last 125 years. As a latecomer to international trade, Japan did not possess global companies that could act as "majors" in the most traded items; trading companies arose to meet the need for a Japanese presence in the international market and to resolve problems associated with languages, cultures, contacts and procedures. They imported much-needed raw materials, and their national distribution systems gave them a major influence over what was brought into Japan. They began mostly to export manufactures, and their global sales system became useful for helping small Japanese manufacturers reach foreign customers.

Mitsubishi claims that it has not been a trading company since at least 1996 (President's Message, Annual Report, 1996, p. 4), but in a formal sense this has been the case since the end of World War II when Allied Forces obliged the dominant existing zaibatsu to be broken up into separate entities. The companies that carry the Mitsubishi name or operate within the orbit of the Mitsubishi Group today are listed below (http://www.micus.com/docs/other):

Asahi Glass Co. Ltd.
The Bank of Tokyo-Mitsubishi
Dai Nippon Toryo Co. Ltd.
DC Card Co. Ltd.
Kirin Beer
Meiji Life Insurance Company
Mitsubishi Aluminum Co. Ltd.
Mitsubishi Auto Credit-Lease Corporation
Mitsubishi Cable Industries, Ltd.
Mitsubishi Chemical Corporation
Mitsubishi Construction Co., Ltd.
Mitsubishi Corporation
Mitsubishi Electric Corporation
Mitsubishi Estate Co. Ltd.
Mitsubishi Gas Chemical Company, Inc.
Mitsubishi Heavy Industries, Ltd.
Mitsubishi Kakoki Kaisha, Ltd.
Mitsubishi Liquefied Petroleum Gas Co., Ltd.
Mitsubishi Logistics Corporation
Mitsubishi Materials Corporation
Mitsubishi Nuclear Fuel Co., Ltd.
Mitsubishi Motors Corporation
Mitsubishi Office Machinery Co., Ltd.
Mitsubishi Oil Co., Ltd.
Mitsubishi Ore Transport Co., Ltd.
Mitsubishi Paper Mills Limited
Mitsubishi Petroleum Dev't Co., Ltd.
Mitsubishi Plastics, Inc.
Mitsubishi Precision Co., Ltd.
Mitsubishi Rayon Co., Ltd.
Mitsubishi Research Institute, Inc.
Mitsubishi Shindoh Co., Ltd.
Mitsubishi Space Software Co., Ltd.
Mitsubishi Steel Mfg. Co. Ltd.
The Mitsubishi Trust and Banking Corp.
Nikon Corporation
Toyo Engineering Works, Ltd.
Nippon Yusen Kabushiki Kaisha
Shin Caterpillar Mitsubishi Ltd.
The Tokio Marine & Fire Insurance Co. Ltd.
Mitsubishi Heavy Air Conditioning and Refrigeration Systems Corp.

There is no single central holding company, and in principle these firms are independently owned and operated; nonetheless, they still have many common activities, involving numerous joint projects, and they do a substantial volume of trade with each other. They also have important cross-shareholdings: for example, some of the main shareholders of Mitsubishi Corporation in 2000 were group members like: The Tokio Marine and Fire Insurance Co. Ltd. (6.11%), Meiji Life Insurance Co. (5.14%), The Bank of Tokyo-Mitsubishi Ltd., (5%), The Mitsubishi Trust and Banking Corporation (4.7%), Mitsubishi Heavy Industries Ltd. (3.12%), The Mitsubishi Trust and Banking Corp. (Trust Account) (2.18%).

Perhaps the real sense of no longer being a general trading company has more to do with the need for change and renewal in Mitsubishi Corporation than with its formal structure and functions. Mitsubishi Corporation fell on hard times in the 1990s, mainly because the import side of its import-export activities were hit hard by the prolonged economic crisis in Japan, and because the export side weakened as manufacturers steadily cut out intermediaries and established their own internationally integrated production systems. Over the 1992-2000 period, Mitsubishi Corporation's gross trading profits went into a secular decline, with total assets falling from 10.3 to 8.1 trillion yen (from about US$ 81 to US$ 77 billion), and although total shareholder equity rose from 727.7 to 1,171,6 billion yen (from US$ 6 billion to US$ 11 billion approximately) in 1996, it had fallen back to 905.7 billion yen or about US$ 8.5 billion by 2000. The value of its total trading transactions dropped from 15.826 to 13.113 trillion yen (from about US$ 124 to US$ 121 billion) during 1998-2000. In its 1996 annual report (p. 3), Mitsubishi noted that competition had intensified in all its markets and that it could no longer pursue a 'do everything' strategy. In its 2000 annual report (p. 3), Mitsubishi Corporation stated,

> "Manufacturers are attempting to deal directly with customers, bypassing traditional channels in the New Economy. In some quarters, people are of the opinion that the change being wrought is so fundamental that it threatens the very existence of intermediaries. Our existence."

In the face of such difficult times, in 1996 Mitsubishi Corporation attempted to shift more of its activities into investments and investment-related business. Nonetheless in October 1998 it was deemed necessary to implement a tough new business strategy —MC2000— in order to improve its dismal performance, and by 2000, Mitsubishi Corporation still felt the need to shed its high cost structure and become a leaner, more goal-driven company.

To add insult to injury, some of the more prominent members of the Mitsubishi Group confessed to questionable practices and dangerous products, which had the effect of undermining the Mitsubishi brand. In August 2000, Mitsubishi Motors admitted to covering up customer complaints about its vehicles for over 20 years (*The Economist*, 26 August 2000, p. 50), and in September 2000 Mitsubishi Electric recalled 45,000 defective television sets that were liable to catch fire (*The Economist*, 16 September 2000). This appears to lend credence to the view that trading companies have great difficulty emulating successful manufacturers.

In terms of its "core" activities, the Mitsubishi Corporation's companies,

> "… operate predominantly in a single industry commonly classified as general trading companies. The companies' general trading activities consist principally of performing purchasing and marketing functions in domestic and international markets, providing direct or indirect financing arrangements for purchasers and suppliers, and organizing and coordinating industrial projects primarily in conjunction with purchasing and marketing activities. In their general trading activities, the companies deal in a wide variety of raw materials for and products of the manufacturing, extractive, agricultural and marine, and service industries." (Mitsubishi Corporation, Annual Report 2000)

In 1999 measured by sales, Mitsubishi Corporation was the seventh largest corporation in the world (*Fortune Global 500*), the second largest Japanese and the second largest Asian company (Asian Week). By 2000, however, it was apparently no longer an advantage to be either a general trading company or one of the world's most diverse enterprises.

According to a statement posted on its own website, Mitsubishi Corporation believes it still has significant competitive advantages:

> "Mitsubishi has decades of experience doing business around the world, experience that has made it more than just a leader in international trade. The company's extensive network and wide-ranging activities give it a decisive edge in gathering the timely, accurate market information vital to success. The company's 7 business groups New Business Initiative, IT & Electronics Business, Fuels, Metals, Machinery, Chemicals and Living Essentials—work closely with clients to develop new business opportunities. Project coordination, sourcing of raw materials, capital investments and development of sales channels are just a few of the ways that Mitsubishi Corporation create value for business partners, customers and shareholders."

Figure III.10 gives an outline of the organizational structure of Mitsubishi Corporation; a brief description of each element follows.

The New Business Initiative Group represents an attempt to bring Mitsubishi Corporation into the New Economy, in this case with e-commerce activities, or what Mitsubishi Corporation calls "dot com business". The goal of this business group is to help modernize the company and develop new activities. The Information Systems and Services Group deals with computers, telecommunications and aerospace, among other things. It operates DIRECTV in Japan and provides satellite broadcasting services. The Fuels Group works with the leading oil- and gas-producing countries and with multinational oil conglomerates to ensure stable, long-term energy supplies to customers in Asia and around the world. The Metals Group participates in all business areas related to the iron and steel industries and non-ferrous metals. These include natural resource development, and the manufacture, marketing and distribution of metal products. The Machinery Group engages in a wide array of projects in large-scale power generation, chemical and steel plants, shipbuilding, automobiles, construction equipment, industrial machinery and real-estate development. The Chemicals Group has activities ranging from basic and specialty chemicals to novel synthetic fibre materials, petrochemicals and non-organic chemicals and fertilizers. The Living Essentials Group is the consolidation of the group' food-related, textiles and apparel operations, lumber and paper, and other business fields.

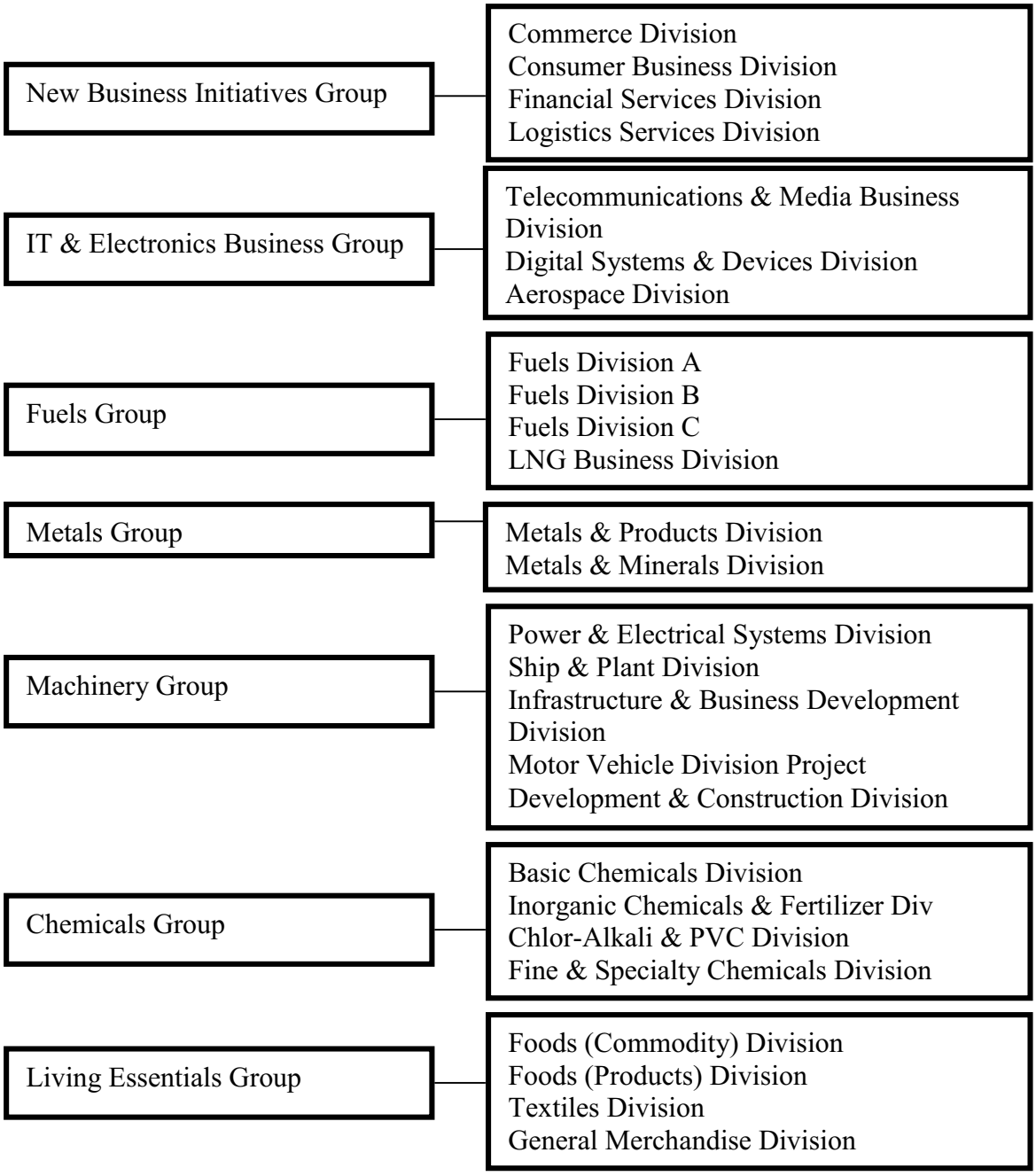
Mitsubishi Corporation does not possess an internationally integrated production system similar to the large manufacturing transnationals, but instead has a network of subsidiaries, affiliates and business investments corresponding to each of its Business Groups. In its global network as of 1 October, 1999, Mitsubishi Corporation had 72 foreign subsidiaries and 82 overseas offices distributed as follows:

Region	Subsidiaries	Offices
Asia & Pacific	22	34
North & Central America	21	2
Europe	14	18
South America	10	3
Africa	3	13
Middle East	2	12
Total	**72**	**82**

Source: Mitsubishi Corporation (http://www.mitsubishi.co.jp/outline2/en/network.html).

At that time, the New Business Group had three financial subsidiaries (located in the United States, the Netherlands and the United Kingdom). The IT & Electronics Group had two quite special subsidiaries -an Irish one specializing in aircraft leasing and financing, and a United States subsidiary dealing with IT investments. The Fuels Group comprises numerous firms mainly in the raw materials field: in liquid natural gas (LNG) (Brunei, Australia, Malaysia), liquid petroleum gas (LPG) (China-2) and petroleum (Hong Kong, United States and Singapore). The Metals Group

Figure III.10
ORGANIZATIONAL STRUCTURE OF MITSUBISHI CORPORATION



Source: Mitsubishi Corporation, *Annual Report, 2000.*

consists of a large number of enterprises involved in iron and steel (United States - 4, Canada - 2, China and Thailand); copper (United States and Chile), aluminium (Australia - 2); coal (Australia) and metal dealing (United Kingdom). The Machinery Group encompasses numerous companies in many and varied activities, including automotive-related (Thailand - 2, Philippines, Australia, Portugal, Germany, Indonesia and United Kingdom); and elevators (Colombia, South Africa and Indonesia). The Chemicals Group has subsidiaries for petrochemicals in the United States, food containers in the United States, solar salt in Mexico, methanol in Venezuela, and fluorochemicals in Italy. Finally, the Living Essentials Group has subsidiaries for wood pulp in Canada (2), citric acid in Thailand, specialty vegetable oils, pork, cement, and printing and photographic materials in the United States, and food wholesaling in the United Kingdom.

It is extremely difficult to assess the importance of the different subsidiaries and affiliates within this tremendously diverse organizational structure. Nonetheless, the information posted on the Mitsubishi Corporation website suggests that Mitsubishi International Corporation, or MIC (United States), Mitsubishi Corporation (Singapore branch) and Mitsubishi (China) are three of the most important foreign entities from an organizational perspective. MIC was established in 1954 in New York, and in 1998 it had sales of US$ 7.2 billion (down from US$ 8.8 billion in 1997) and 650 employees. It engaged in two broad activities: global trading (commodities, consumer and industrial products, technology), and dealmaking (investing, financing, matchmaking and marketing, project management, technology transfer, and mergers and acquisitions). As well as reflecting the organizational structure of its parent company, MIC had additional functions, such as running a Representational Office in Washington to liaise with international institutions (World Bank), as well as regional (Inter-American Development Bank) and national ones (US Export-Import Bank), and to oversee the Americas Task Force. This Task Force brings together regional and sectoral/industrial specialists with experts in finance, risk management and project co-ordination in a targeted effort to seek out and develop large-scale infrastructural and other projects in Latin America. MIC's activities are an important element in Mitsubishi Corporation's overall operations, reaching beyond the North American market itself.

Since the 1970s, co-coordinated visits have been made to China by the presidents of numerous Mitsubishi Group companies (including Mitsubishi Corporation, Mitsubishi Heavy Industries, Bank of Mitsubishi, Mitsubishi Material, Mitsubishi Electric Industrial, Asahi Glass, Mitsubishi Kasei). In 1984 a contract for a science and technology exchange was signed between 32 Mitsubishi Group companies and the Chinese Science and Technology Centre; and by September 2000 Mitsubishi Corporation had one subsidiary, 14 offices, one investment company, four free trade zone enterprises and 127 affiliates operating in the country. It has 72 affiliates operating in the manufacturing sector: food (14), apparel (11), chemical (13), metals (16), electronics (4), machinery/equipment (7) and other (7). The remainder are involved in logistics/warehousing (10), trading/retail/distribution (18), real estate (40), services (10), finance/insurance (30), and investment and holding companies (10). Like MIC, the operations in China are a major element in Mitsubishi Corporation's overall activities, but unlike MIC they are limited to the host market.

Mitsubishi Corporation has also taken on a major commitment in Singapore, where it has been operating since 1955. As well as representing the panoply of Mitsubishi Business Groups, its Singapore arm has also been involved in a large amount of local infrastructural work (airport, satellite communications, sewerage, shipping and land transportation). It has also been heavily involved in regional initiatives, such as industrial parks in Vietnam and China. Lastly, Mitsubishi Corporation established subsidiaries in Singapore to carry out distribution and financial functions (MC Tran Singapore Pte. Ltd. and MC Capital Asia Pte Ltd., respectively). The former provides total logistics and trading services to its clients, ranging from the development of infrastructures for transporting raw materials to the distribution of finished products, launching JB Distripark and MK Distripark both in Johor (Malaysia) for that purpose. The direct investment that MC Capital Asia Pte Ltd. undertakes in ASEAN member countries, represents an important regional initiative by Mitsubishi Corporation, not only in the context of the ASEAN integration scheme but also further afield.

Latin America is clearly not a priority area compared to Asia or North America, and in fact, Mitsubishi Corporation's main North American subsidiary co-ordinates much of its activities in the region. The company's organization chart shows that it considers North America and Central America (including Mexico) as a single organizational unit. Even so, Mitsubishi Corporation does have a few important interests in Latin America. In Chile, it has a 10% stake (through its JECO subsidiary) in the La Escondida copper mine owned by BHP and Rio Tinto Zinc, and a 15% holding (in association with Mitsubishi Materials) in the Las Pelambres copper mine belonging to the local Luksic group. The first of these is the world's largest

copper mine and accounts for more than one third of Chile's copper exports. The second is just starting its activities but will eventually become one of the ten largest copper mines in the world. Mitsubishi Corporation also has a 10% stake in the Antamina copper/zinc mine in Peru, and sells its output to Japan and the rest of Asia. In the petroleum sector, Mitsubishi Corporation in association with another Japanese trading company, Itochu, signed a US$ 2.5 billion loan agreement to develop the Barracuda-Caratinga deepwater oil field owned by the Brazilian State petroleum company, Petrobras. It has also been involved in a number of electric power generation projects in Mexico, usually on a BOT (Build, Operate and Transfer) or BLT (Build, Lease and Transfer) basis.

Clearly, the kind of subsidiary, affiliate or business venture that Mitsubishi has in Latin America is nothing compared to what it possesses in other parts of the world where its business is more concentrated, such as North America (MCI) or Asia (China or Singapore, for example). Although it participates in some important natural resource projects in Chile, Peru and Brazil, along with electric power generation in Mexico, aside from these natural resource-seeking activities, Mitsubishi Corporation's presence in the region is mainly limited to trading activities, and, like other major Japanese trading companies, its primary interests lie elsewhere.

The foreign direct investment undertaken by the general trading companies has a logic that is completely different from that of the competitive manufacturers. It is based on import-export operations and the search for natural resources, rather than the establishment of internationally integrated production systems. Despite these basic differences, FDI undertaken by the general trading companies and by the manufacturers shares the fact of being concentrated in their main markets, with little of it placed in Latin America. The Business Groups in the trading company seem to operate independently in the sense that corporate organization is functional rather than geographic. This means that Mitsubishi's FDI in Latin America is the sum of numerous separate investment decisions, rather than the execution of a comprehensive corporate strategy for the region.

E. AN INNOVATIVE NEWCOMER: NTT-DOCOMO POSITIONS ITSELF IN THE GLOBAL TELECOMS INDUSTRY

In a world where telephone companies have proved good at voice communications but not so good at internet, and the performance of the telecoms industry in general has become more and more disappointing (see chapter IV of this report), NTT DoCoMo (hereinafter, simply DoCoMo) has been the exception. DoCoMo is the largest wireless telecommunications company in Japan with 47 subsidiaries and 11 affiliates. Its activities include: mobile phone services (cellular, packet communications, satellite mobile, in-flight telephones and equipment sales); Personal Handy Phone Services (PHS —a new kind of small, lightweight portable telephone system particularly suitable for data communications which was developed in Japan and operates like a cordless telephone base unit but with a much larger transmission range); paging services; and miscellaneous services such as international dialling. DoCoMo has been described as the "most successful Net phone company anywhere" (*Business Week*, 16 October 2000), and its most successful application, "i-mode"[59] could become the "biggest consumer phenomenon since Sony's Walkman in the 1980s" (*Fortune*, 18 September 2000). Its operating revenues shot up from 1.2 to 3.7 trillion yen (from about US$ 12 billion to US$ 35 billion) between March 1996 and March 2000; and the figure for March 2001 is expected to come in at 4.6 trillion yen (around US$ 40 billion) (DoCoMo, Annual Reports, and "NTT DoCoMo Inc. First-half results for FY 2000", 14 November 2000). Its cellular service subscribers grew in number from 4.9 to 29.4 million during the same period and are forecast to reach 35 million by March 2001. The proportion of i-mode subscribers among all subscribers

59 According to DoCoMo's FY2000 *Annual Report* "i-mode services generally fall into two categories: (1) Communication - With i-mode, subscribers can communicate via conventional voice transmissions as well as e-mail (i-mode mail) using packet transmissions over the internet; and (2) Provision of Information - An i-mode handset is a gateway to the i-mode portal sites offered by partners that have agreements with DoCoMo as well as other non-partner sites designed to be compatible with i-mode. The i-mode recommended sites cover a broad spectrum of services covering transactions, information, databases, and entertainment."

rose from 19.1% in March 2000 to an estimated 57.1% in March 2001. Such statistics speak for themselves.

Two other factors make DoCoMo special in the context of this report. Firstly, DoCoMo is a somewhat curious latecomer (1992). The company emerged from the deregulation of the non-competitive and defensive Japanese telecoms industry then dominated by the partially privatized State telephone company, Nippon Telegraph and Telephone (NTT). The latter is DoCoMo's parent company, holding two-thirds of its shares. DoCoMo is an interesting case because, even though it is owned by a defensive and bureaucratic firm majority-owned by the State (59%), it has managed to retain its dynamism and innovation to stay atop a rapidly changing industry (*The Economist*, 15 March 1997; 3 July 1999; 13 May 2000; 22 July 2000). In this sense, DoCoMo is really a merger of two companies: a traditional telecom business with heavy investment costs and long payoff periods, and a mobile-media enterprise where creativity and speed are of the essence (Fortune, 18 September 2000). So far the combination has worked.

DoCoMo possesses clear competitive advantages —especially technological ones, which it is starting to use to establish a global footprint via an integrated international expansion policy. Furthermore, DoCoMo's international expansion is backed by chip makers, software houses, systems integrators and Japan's marketing and advertising industry (*The Economist*, 15 December 2000). As a result, it has become a factor in Japan's foreign direct investment outflows.

DoCoMo's global strategy "Vision 2010" rests on three characteristics: mobile, wireless and personal. The essence of the strategy involves enhancing its core voice communications business and establishing mobile multimedia as a second growth point. This entails developing its person-to-person (voice, e-mail), person-to-machine (net browsing, i-mode) and machine-to-machine (tele-metering and automatic and remote control) communications. In its own words, DoCoMo's Vision 2010 is based on the following (DoCoMo Annual Reports found at http://www.nttdocomo.com/ir/operate.html):

- For the existing cellular and PHS services, DoCoMo aims to achieve high levels of consumer satisfaction by maintaining and improving network quality, providing more advanced terminals and handsets, and offering more attractive rates to customers.
- To respond to the continuously growing demand for mobile multimedia, DoCoMo will further develop cellular phone handsets with Internet access and e-mail capabilities, and promote other new services such as music distribution and video distribution.
- To prepare for the launch of IMT-2000 services slated for the end of May 2001, which will be an indispensable part in being able to provide full-scale mobile multimedia in the future, DoCoMo is actively constructing the network infrastructure and developing various applications and services that will be offered on this network. Furthermore, DoCoMo continues its research and development activities for the fourth and subsequent generations of mobile communications technologies to further advance its services.
- To globalize its businesses, DoCoMo will seek opportunities to make investments in overseas telecommunications operators and/or multimedia-related businesses and form alliances with various players in the field, in efforts to facilitate the dissemination of IMT-2000 and the introduction of mobile media services.

DoCoMo's competitive advantages are manifold and varied. It is large (with a market capitalization of around US$ 280 billion); it is cash-rich, thanks to its highly profitable i-mode services (DoCoMo, "First Half Results for FY2000", 14 November 2000); and it can afford a formidable research and investment effort employing 1,000 R&D staff. According to company president, Keiji Tachikawa, "Mobile-voice-communications competition is basically over. When it comes to coverage, tariff levels, and improved handsets, there is no real differentiation among competitors" (*Fortune*, 18 September 2000). DoCoMo seems to be focused on larger targets; its shorter-term advantages are centred on getting benefits out of its i-mode technology, but its longer-term advantages are concerned with defining future broadband standards.

DoCoMo's extraordinary success at implementing the i-mode function in the value chain had more to do with branding, marketing and content than frontier technology (Wieland, 2000). While DoCoMo claims that the "i" stands for interactive, internet and information, "i" in Japanese means love. The i-mode service filled a void especially in the Japanese market where, unlike North America and Europe, the high-cost of fixed-line internet access made mobile phones a more feasible option (*The Economist*, 15 December 2000). DoCoMo currently provides access to web sites, mail and internet, but the installation of Java as from 2001 will additionally enable e-commerce, intranet access, news and games. Other new services are expected to include music and video downloading, making i-mode a favourite among Japanese youth who have so far mainly used it for paging and sophisticated text messages. Its popularity derives from its ease of operation (two-digit codes for messages), price (it is based on packet

transmission, rather than an open line) and content (its HTML format enables linking by voluntary websites, which expanded from 5,052 to 18,259 between January and July 2000). This makes it convenient for major computer, advertising and telecom firms to include i-mode in their repertoire of services. In other words, in a telecommunications world replete with grandiose but unfulfilled schemes for "killer" applications, DoCoMo has designed and implemented an exceedingly practical and functional service that has swept the Japanese market and could do the same internationally.

DoCoMo's broadband lead based on the W-CDMA technology alternative is what will probably provide long-term growth for the company (see "W-CDMA —The Technology that Makes Mobile Multimedia a Reality" at http://www.nttDoCoMo.com/r_d/cdma.html). The new technology is fast (2MB per second transmission speed) and large (it is seen as the leading candidate to become a first global standard providing a seamless W-CDMA service network worldwide). DoCoMo was the first telephone company to apply for a third generation (3-G) license in Japan, which it acquired free of charge, thereby gaining a huge lead over others in the field. Japanese competitors (KDDI and J-Phone) will be hard pressed to match DoCoMo's 1 trillion yen capital expenditure programme to cover the entire Japanese market by March, 2004. Internationally, competitors in the United States, for example, are unlikely to catch up for another 6-8 years. DoCoMo is playing a major role in the IMT-2000 common standards initiative of the International Telecommunication Union, by promoting the W-CDMA protocol through its Freedom Of Mobile Multimedia Access (FOMA) initiative. To consolidate its lead in broadband, DoCoMo has also established a new global strategy based partly on FDI in the operations of its foreign associates.

DoCoMo's overall strategy is to become a major player in the global cellular/mobile multimedia market, by exploiting its competitive advantages in order to establish an international system. These advantages include its business expertise in i-mode and other services, its superior R&D capabilities, its W-CDMA lead, the leverage its enjoys through its customer base, and its influence over standardization trends, supported by its strong financial profile and ability to secure funding. The formal goals of its foreign investment are to establish partners in the W-CDMA infrastructure; to expand operations and services, such as i-mode, worldwide; and to accelerate the mobile multimedia revolution (DoCoMo, FY2000 Report, 2000). An interesting aspect of DoCoMo's global strategy, considering the major role that mergers and acquisitions have played in consolidating the telecoms industry over the last few years, is that DoCoMo's initiative relies more on strategic partners than acquiring their competitors. From this perspective, DoCoMo believes it can help its strategic partners make efficient investments based on the transfer of its technology and know-how (thereby strengthening its management base, providing the technology and business expertise for i-mode and 3-G networks as well as sharing content and/or applications on demand) in return for royalties and opportunities related to access to their customer base (DoCoMo, "NTT DoCoMo. Inc.", September 2000).

DoCoMo's international expansion embraces a variety of elements and shows that the firm is carefully positioning itself in the mobile/multimedia telecoms industry. Its strategy includes collaboration in the JIMM forum with eight other major operators. It also has alliances with Microsoft, Sun Microsystems, Symbian, 3Com and America Online (AOL) (DoCoMo, "Partnership between NTT DoCoMo and America Online, Inc.", 27 September 2000). In addition, it has venture-capital investments in Japan (Mobile Internet Fund), Asia (Java Fund) and the United States (Advent, Century and Ignite); and it has fully-owned regional subsidiaries in Brazil (1994) for technology transfer; Europe (1998) for standardization; United States (1999) for research and development; China (2000) for technology and information; and a financial subsidiary in the United Kingdom (2000). It is also establishing a new advisory board for its United States operations (DoCoMo, "NTT DoCoMo. Inc.", September 2000). Another particularly interesting aspect of DoCoMo's international expansion is its policy of taking minority stakes in the some of its strategic partners' most relevant activities.

In this context, DoCoMo has made investments in Asia (Hong Kong and Taiwan), United States, Europe (Holland) and Latin America (Brazil) over the last few years. It paid 42 billion yen (about US$ 400 million) for a 19% stake in Hutcheson Communications (Hong Kong) Limited-HTCL and initiated a i-mode type of service in May 2000. It invested 60 billion yen (about US$ 570 million) to acquire 20% of KG Telecom of Taiwan, thereby extending the W-CDMA presence in Asia (DoCoMo, "Global Strategy and Investments in United States and Taiwan", 30 November 2000). In Europe, DoCoMo paid 4 billion euro for a 15% stake in KPN Mobile of the Netherlands, giving it access to KPN's mobile licenses not only in the Netherlands, but also —after establishing a joint venture with KPN in September 2000— in Belgium, Germany, Ukraine, Hungary and Indonesia (and possibly also France). That investment, together with another on the order of £1.2 billion for a 20% holding in Hutchison 3G (UK), gave

DoCoMo a major influence on mobile communications in Europe through its strategic partners KPN Mobile and Hutchison Whampoa. In the United States, DoCoMo made a major investment of approximately 1.08 trillion yen (around US$ 10 billion) to acquire 16% of AT&T Wireless in November 2000, with the aim of jointly promoting W-CDMA technology in that market (in competition with the CDMA2000 alternative backed by Qualcomm and Verizon Wireless) (*Business Week*, 11 December 2000). The final piece in the DoCoMo international system was actually one of the first to be executed, in September 1998: an investment of 95 million Brazilian real for a 3.6% stake in the mobile subsidiary formed by Telefónica de España (and others) to purchase the Telebras companies providing mobile services in the Rio de Janeiro and Espíritu Santo region of Brazil.

One problem that has arisen for DoCoMo is that its policy of international expansion based on acquiring minority stakes in its partners' operations, rather than setting up its own subsidiaries, has not resulted in the expected level of influence in its partners' management and investment decisions. One impact of this could be to erode DoCoMo's advantage in 3-G technology (*Nikkei Business*, 2000).

Just as we saw in the analysis of corporate strategies among several others of the major firms making a significant contribution to Japan's outward FDI, the Latin American component (Brazil) of DoCoMo's intricately designed international expansion does not really mesh with the rest of its strategy. This is because its level of participation does not give it a significant influence in management and technology decisions, and because its partners in Brazil are not the same as those in Europe. It will be interesting to see whether DoCoMo remains in the Brazilian market when the time comes to renew the license. DoCoMo has no presence in the rest of Latin America, having largely missed the massive privatization and deregulation processes that took place there during the 1990s, which suggests once again that Latin America was not a priority. Better investment alternatives were available for this Japanese telecoms major, and its expansion cycle did not coincide with the liberalization process in the region.

F. CONCLUSIONS ON JAPANESE INVESTMENT IN LATIN AMERICA AND THE CARIBBEAN

The performance of the Japanese economy during the second half of the twentieth century was very impressive, until it entered the prolonged crisis of the 1990s. The nature and environment of Japan's economic evolution were quite different from those of other countries, and they do not fit into simple categories. The Japanese metaphor of wild flying geese (and its more recent adaptations) was invoked in an attempt to capture the special relationship between industrialization, international competitiveness and outward foreign direct investment that characterized Japan's progress. Although the statistical information on Japanese FDI is plentiful, it is not very useful for understanding the outward FDI process unless combined with complementary data on corporate strategies in specific industries.

There have been at least three identifiable bursts of Japanese FDI. One was centred on the natural resource-seeking FDI of the general trading companies, such as Mitsubishi Corporation. The general trading companies also facilitated the initial wave of FDI by Japanese manufacturers with export ambitions. The second wave had more to do with the internationalization of consumer electronic corporations, such as Sony and Matsushita Electric Industrial, and the third was based on the establishment of internationally integrated production systems by automotive giants such as Toyota and Honda. DoCoMo may represent the start of a fourth burst based on its positioning in the global mobile-multimedia telecoms industry. The extent to which these separate outflows have overlapped is not clear. Outward FDI by the general trading companies mostly seems to have preceded that of the leading exporters of manufactured goods. The FDI outflows by the major manufacturers broadly consisted of two spurts: a smaller initial one in which they made market-seeking investments in national economies that were wholly or relatively closed to imports of electronic and automotive products; and a much larger second burst, in which they made efficiency-seeking investments to establish export platforms or internationally integrated production systems to supply the main global markets.

Latin American countries seem to have received a substantial portion of the relatively small initial FDI wave, in which the general trading companies played the pivotal role. But, except for Mexico, they did not receive

a significant part of any of the subsequent surges of Japanese FDI. During the period of market-seeking investment by the major manufacturing exporters (1970-1990), particularly in the consumer electronics and automotive industries, most Latin American countries were experiencing serious economic difficulties stemming from the exhaustion of the import-substituting industrialization model, and later as a result of the debt crisis. The subsequent explosion of efficiency-seeking FDI by the leading Japanese manufacturers, especially in the consumer electronics sector, failed to reach Latin America (apart from the maquila industries in Mexico) because the trade liberalization policies implemented by nearly all countries in the region made it feasible to export to them. Exporting was the manufacturers' preferred alternative, and national industrial policies in the region for the consumer electronic industry did not require them to expand their existing investments. The automotive industry was a special case since the two main integration schemes in the region —the North America Free Trade Agreement (NAFTA) and the Southern Common Market (Mercosur)— each had defined, but distinct, automotive policies. Most Japanese corporations organize themselves regionally in a way that includes their Mexican subsidiaries (and sometimes those in Central America) as part of their North American production systems. The fact that "Latin America" often means South America for Japanese transnationals reflects their view of opportunities in the region. In telecoms, DoCoMo's FDI in Brazil seems somewhat anomalous in the context of its well-defined global strategy.

Japan's transnationals had FDI cycles that did not coincide well with the evolution of Latin American economies, except for Mexico's maquila programme. The manufacturers had better opportunities and different priorities for establishing both local market-serving affiliates and subsidiaries for their integrated regional production systems in North America, Europe and Asia. Inclusion of Mexico in the North American production system reduced the overall size of the Latin American market compared to the three other regions mentioned above. Apart from DoCoMo, which came on the scene late, Japanese investors were not generally in tune with the main attractors of inward FDI to South America during the 1990s, namely privatization of telecommunications, electric power generation and distribution, and other infrastructural activities; and mergers and acquisitions among financial service or oil companies. There were also other factors discouraging them from establishing export platforms or regionally integrated production systems in South America. First, the necessary inputs (a competitive environment, skilled human resources, capable local suppliers, facilities for export processing, modern telecommunications and infrastructure) were not always sufficiently available, either in quantity or in quality. Secondly, the tariff liberalization process, coupled with a relaxation of industrial policy requirements, made it easier for a transnational to supply many national markets by exporting from other sites within its internationally integrated production system. Lastly, in the case of general trading companies, many of the core banks in their keiretsu groups had been badly burned in the Latin American debt crisis and did not have a very positive opinion of FDI opportunities in the region. Moreover, the Japanese manufacturers increasingly carried out their internationalization process in an independent fashion, without relying on those general trading companies.

This interplay between factors driving the Japanese outward FDI, the availability of investment opportunities elsewhere, and the policy environment in Latin America resulted in an extremely low level of Japanese FDI in Latin America. Might different policies have produced a different outcome? Aside from the obvious fact that fewer crises, coupled with better macroeconomic management and clearer national policies and priorities, would have helped, there are clear limits to the impact of policy in this domain. A more active national policy (aside from better information and improved image-making) would not necessarily have led to greater natural resource-seeking FDI by the Japanese trading companies or higher levels of national market-seeking FDI by its manufacturers. Both the general trading companies and the manufacturers continually evaluate their investment alternatives, and the main factors in their investment decisions are the magnitude of the natural resources or the national market in question, compared to other possibilities. Policy would not normally make a significant difference here.

An active government policy might have made a difference to efficiency-seeking FDI by the leading Japanese manufacturers. In Asia, Japanese corporations were accustomed to active host country policies, both in terms of macroeconomic management and in terms of specific industrial policies, such as the formation of local supply chains (Kagami, 1995, pp. 44 and 47). The investment calculus relies heavily on factors that governments can influence, such as the competitive situation of the country (a favourable business environment, a functional foreign investment law, skilled human resources, capable local suppliers, facilities for export processing, modern telecommunications and infrastructure), and mechanisms for channelling FDI to priority projects (financial or fiscal incentives). Although Mexico did not

pursue an overly active policy in this regard, there was significant coincidence of interests between the corporate strategies of the major Japanese consumer electronics corporations and Mexico's export processing facilities (maquilas), together with its privileged access to the United States market (HTS 9802) and the benefits of the North American Free Trade Area. NAFTA rules of origin were also important in enticing the global suppliers of the Japanese manufacturers that had invested in Mexico to do the same. The Tijuana electronics cluster is a vivid example of this. Perhaps the most salient lesson for policymakers in Latin America is that if industrial development is a priority objective of FDI policy, then specific measures going beyond mere investment attraction are called for. Japanese investment in Asia was very important for that region's industrial development, and Latin America sorely misses that kind of FDI (Kagami, 1995).

With regard to Japanese FDI in Latin America's service industries (excluding tax-haven and ship-registry activities) the major new opportunity of recent years has been in telecommunications. Unfortunately, the telecoms deregulation cycle in Japan itself, and the emergence and international expansion of DoCoMo, did not coincide well with the privatization and deregulation cycle in Latin America. Although DoCoMo did catch the tail-end of that cycle via a minor participation in the Telefónica de España purchase of some of Telebras' mobile telephony subsidiaries, this initiative did not square well with its subsequent global strategy for rapid international expansion in 1999-2000. In view of this, now might be the right time for Latin American policy makers to reassess the degree to which their national goals in the licensing of mobile operators coincide with the corporate strategy displayed by DoCoMo, to see whether a more active and focused policy might be warranted.

Lastly, the Japanese Government has not generally been in favour of the plethora of free trade agreements signed over the last decade, and has tended to prefer a multilateral approach. Nonetheless, it recognizes that such agreements are an increasingly standard feature of the Latin American policy environment, and has taken several steps in this direction, including conversations with Mexico (JETRO, 2000a; Solis, 2000) and a formal project with Chile (JICA/Ministerio de Economía, Minería y Energía de Chile, 2000). Other Latin American Governments might be well advised to take these initiatives into account in designing policies to promote Japanese FDI in their respective economies.

IV. TELECOMMUNICATIONS: INVESTMENT AND CORPORATE STRATEGIES IN LATIN AMERICA AND THE CARIBBEAN

A. TELECOMMUNICATIONS AND GLOBALIZATION

Since the late twentieth century the telecommunications industry has been one of the most dynamic in the world. The spectacular development of this sector in the 1990s reflects the best and worst of globalization. On the positive side, there are the impressive benefits that this process can yield, such as the way it has turned telecommunications into a powerful engine of growth, largely because of the enormous amounts of FDI this industry has received.[60] These benefits are demonstrated by the following figures: over the period 1990-2000 the number of main telephone lines increased from 520 million to 970 million, international traffic rose from 33 billion to 110 billion minutes, the number of mobile telephone subscribers increased from 11 million to 650 million and the number of Internet users grew from 2.6 million to 385 million. Over the same period, total capital spending on telecommunications services was in excess of US$ 1.637 trillion, a sum that reflects the

60 According to information from the United Nations Conference on Trade and Development (UNCTAD), in the 1990s cross-border mergers and acquisitions in the transport, storage and communications industry totalled US$ 302 billion, representing some 12% of the US$ 2.491 trillion of cross-border mergers and acquisitions seen in all industries over the same period (UNCTAD, 2000). In 1999 alone, operations in the telecommunications sector were worth almost US$ 168 billion, accounting for some 23% of the total for that year. FDI has been used not only to carry out the large-scale mergers and acquisitions that have been a feature of the sector's development, but also to finance vast expenditures on equipment and services for the purpose of extending and upgrading networks and to purchase licences, particularly for third-generation (3G) mobile telephony.

strength of the investment process. The annual sales of telecommunications companies increased from US$ 396 billion to US$ 840 billion over the period and are expected to stand at US$ 925 billion in 2002. Between 1990 and 2000 the proportion accounted for by mobile telephony rose sharply —from under 3% to over 27%— while the share accounted for by basic telephony fell from almost 90% to under 55% (ITU, 2001a). From the user's point of view, the main benefits yielded by the globalization of telecommunications include falling prices, a greater range of services, better quality and wider geographical coverage.

Outside the industry, too, the actual benefits are significant and the potential ones enormous. Modernization of telecommunications can lead to major improvements in the systemic competitiveness of the countries concerned and enable them to integrate more rapidly and effectively into the international economy. These developments have therefore fostered hopes that the large gaps separating developed and developing countries may be narrowed. According to 1999 data, the former account for around two thirds of all main telephone lines and mobile telephone subscribers, the other third being accounted for by developing countries.[61] Again, in developed countries telephone density ranges from 38.1% to 64.5% in the case of main lines and from 21.9% to 44.9% in the case of mobile telephones, while in developing countries the proportions range from 2.4% to 7.6% for main lines and from 1% to 8.1% for mobile telephones (ITU, 2001b). Mobile telephony is growing rapidly in both industrialized and developing countries, the difference being that in the former it generally supplements fixed-line telephony while in the latter it is steadily supplanting it (ITU, 1999). Mobile telephony now accounts for over a third of all telephone connections, and the number of mobile telephone users is very likely to overtake the number of traditional fixed-line subscribers over the next 10 years (Kelly, 2000c).

Recent developments in the telecommunications industry also show up some of the worst aspects of the globalization process, which are associated with financial instability and risk-taking by economic agents and national governments. In an episode reminiscent of the rout of "dot com" companies in 2000 (when the Goldman Sachs Internet index fell from about 700 to 200 or so), some of the largest transnational telecommunications companies have lost more than 50% of their market value (Deutsche Telekom, British Telecom, AT&T Corporation and WorldCom) and others around 25% (France Télécom, Telefónica de España and Telecom Italia) (AHCIET, 2000a). From 1999 to 2000 these companies increased their borrowings so much that the share of telecommunications companies in the European syndicated loan market rose from 7.4% to over 35%, something that indicates an increase in the systemic risk of the industry (*The Economist*, 2000a). Again, a number of transnationals in the sector (British Telecom, Deutsche Telekom, France Télécom and Telecom Italia) have had to dispose hurriedly of real estate and other assets (Jacobs, 2001).

Among the main causes of this instability were the exceptionally high prices paid by companies in European auctions for high-speed, high-capacity (3G) mobile telephony licences to ensure they were not left out of the most dynamic and promising segment of the telecommunications industry. It is estimated that the total cost of European licences to operate in this segment could reach US$ 150 billion, with total expenditure by the industry, including infrastructure, totalling some US$ 300 billion. Thus, it has been said that this process "…may prove to be the biggest gamble in business history" (*The Economist*, 14 October 2000).[62] Something different, although possibly with similar effects, is happening in the United States, where there has been an overallocation of spectrum. Part of the bandwidth required for (3G) licences has already been allocated to ultra-high frequency (UHF) television channels, which could make 3G licences very expensive (*The Economist*, 2000b and Buckley, 2000). Leaving aside the spectrum problem, it is significant that in the United States the first

61 The distribution of Internet servers is heavily concentrated in the United States (76.1%) and Europe (14.2%) (Beca, 2000).

auctions (January 2001) for second-generation (2G) PCS[63] mobile telephony licences for blocks C and F yielded almost US$ 17 billion (FCC, 2001). Auctioning off mobile telephony licences has yielded substantial revenue for governments but has brought greater instability to the sector and to the economy.

As has been seen, the development dynamic of the telecommunications industry is complex, and globalization of this industry is having both positive effects (particularly in terms of countries' development) and negative ones (chiefly, greater instability and financial risk). For this dynamic to be better understood it is indispensable to have a clear view of exactly what the globalization of telecommunications means. This process may be envisioned as a long-term tendency towards the establishment of a single world market (Mortimore, 2000) and it has at least three main aspects: technological change, increased competition and transnationalization of the largest companies. Analysing these three elements helps to clarify the nature of the telecommunications globalization process.

1. Technological change

The telecommunications industry is clearly identified with the "new economy", and it played an important role in modernizing and boosting the world economy towards the end of the twentieth century. Before this, telecommunications was a public fixed-line service (natural monopoly), was generally operated by the State or heavily regulated, relied on copper networks using hybrid (analogue/digital)[64] circuit-switched[65] systems, charged by distance and by the minute, and operated in an environment where computers were a luxury item and information a scarce resource. In today's "new economy", computers are a consumer item, information is plentiful and the new networks use fully digital systems based on broadband[66] technology and packet switching.[67] These networks charge progressively by megabyte regardless of distance, are generally privately controlled and run, and are subject to the oversight of independent supervisory authorities and to levels of regulation that vary by market segment and the degree of competition (Kelly, 2000d and World Bank, 2001).

The new telecommunications industry is international, and competition is increasing in everything from basic telephony to new services (digital mobile, cable television, Internet/multimedia). It includes more and more companies that operate in related fields, such as infrastructure and equipment manufacturing (satellites, submarine and overland cables, networking equipment, mobile telephones and so on), software provision (e-mail, portals, m-commerce, etc.) and the supply of content (entertainment, transactions, etc.). It is important to distinguish between these segments —basic, mobile and value-added services— of the telecommunications industry, as in many cases premises or statements that are valid for one of them will not be applicable to the rest.

Technological change provides transnational corporations with a powerful competitive advantage. In

63 There are other opinions on this issue: "…for players that have not achieved success in 2G markets, it may be the last chance to make a significant business in the mobile market of a given country. This rationale probably constitutes the primary driver for major European operators to bid for 3G" (Goulam, 2000) and "Companies are spending the way they are for these licences because there is so much demand for growth in wireless services and because they think, rightly, that being left without a licence means being marginalized in five years' time" (Runkle, 2001).

63 PCS (Personal Communications Service), which operates in the 1,850 MHz to 1,990 MHz frequency range in Latin America and North America, provides a wide range of new digital standards for mobile telephony. It has higher transmission speeds and greater geographical coverage, which means that it allows greater mobility than traditional cellular service.

64 The analogue technology originally used for telephony works by converting air vibrations into analogue electrical sequences. Digital technology is based on electronic circuits that accept and process binary data in accordance with the rules of Boolean logic (TechEncyclopedia, www.techweb.com/encyclopedia/).

65 Circuit-switched networks use the old system of keeping an active line open between the two parties to a telephone conversation for the entire duration of the call. This is less efficient than the new packet-switched method, but is still more reliable for voice communications (TechEncyclopedia).

66 Lines or services with greater capacity, higher speeds or both (1.544 Mbps) (TechEncyclopedia).

67 Packet switching networks use a new system for sending communications (voice, data, video, Internet) broken up into individual packets. Because these packets can be sent by different routes and reassembled on arrival, these networks are more efficient than those that require an open line (circuit switching) (TechEncyclopedia).

the telecommunications industry, technological change has been so rapid and fundamental that it has required companies to renew and upgrade their networks and infrastructure constantly, if not to replace them altogether. The transition from basic telephony to mobile telephony and value-added services has increased the competitive pressure on companies in the industry.

In the basic telephony segment, one of the main differences between the "new" and "old" telecommunications networks lies in the progress made towards digitalization and the increased capacity available for transmitting voice, data and pictures. The "old" fixed copper-wire networks are preventing the new convergence from taking hold as rapidly as it might because they physically restrict the spread of the digital revolution. The challenge for the leading companies in the fixed telephony segment is to modernize their networks, which they can do by investing heavily in new fibre optic networks,[68] using DSL (digital subscriber line)[69] technology or joining forces with television operators that use cable, satellite or other transmission systems. For the companies that own the old copper-wire networks, technological renewal has become indispensable if they are to prevent the new alternative technologies from bypassing local networks to reach the end user (mobile telephony, wireless local loop or WLL[70] and other systems).

In the mobile telephony segment, the speed of technological innovation has been much greater still. Replacing first-generation analogue networks with 2G digital systems led to phenomenal growth in the telecommunications industry. This expansion brought an unprecedented commercial, financial and stock-market bonanza to the companies leading the process, whose competitors were obliged to adopt this new technology in order to survive. Mobile telephony services are creating more and more options, not only for providers (the ability to extend their networks to a growing number of businesses, expand the geographical footprint[71] of their digital services and increase capacity without forfeiting service quality) but for users (prepayment cards, international roaming and new mobile data services, among other things) and countries (rapid modernization and faster access to telephony). It is expected that 3G technologies will provide these benefits on an even greater scale as regards data transmission, entertainment services and computer networks, strengthening the links between network operators and the providers of applications with more value added, content and services. Some of the frenzy currently surrounding 3G licences stems from the perception that companies that fail to enlarge their digital footprint by purchasing new 3G licences will be unable to compete fully in the next stage. One of the basic premises driving today's huge investments is the idea that implementing 3G mobile telephone technologies will permit the spectacular growth of the telecommunications industry to continue, once again yielding an unprecedented commercial, financial and stock-market bonanza for the main participants.

One of the factors underlying the rapid progress of the telecommunications industry is technology. In cellular mobile telephony, three basic 2G technologies are competing to dominate the transition to the third generation: GSM (global system for mobile communications), TDMA (time division multiple access) and CDMA (code division multiple access). The main differences between these lie in the fact that GSM is an integrated cellular system whereas the other two are techniques for sending multiple signals down a single line simultaneously (multiplexing). The shift from 2G (basically voice transmission) to 3G (voice, data and high-speed multimedia) technologies entails an intermediate stage involving techniques to increase the speed of data transmission, improve e-mail service and increase the speed of Internet access. Each of the technologies is backed by transnational corporations or groups of companies seeking to ensure that their option is the one that ultimately prevails. Figure IV.1 shows the stages in the transition from 2G to 3G mobile telephony, as envisaged by the International Telecommunication Union (ITU).[72]

GSM, a cellular digital technology developed in Europe in the 1980s, was implemented there by seven countries in 1992. It is a TDMA-compatible circuit

68 Fibre optic cables improve the transmission of digital information (voice, data, video). They may eventually use optical circuits instead of electrical ones (TechEncyclopedia).

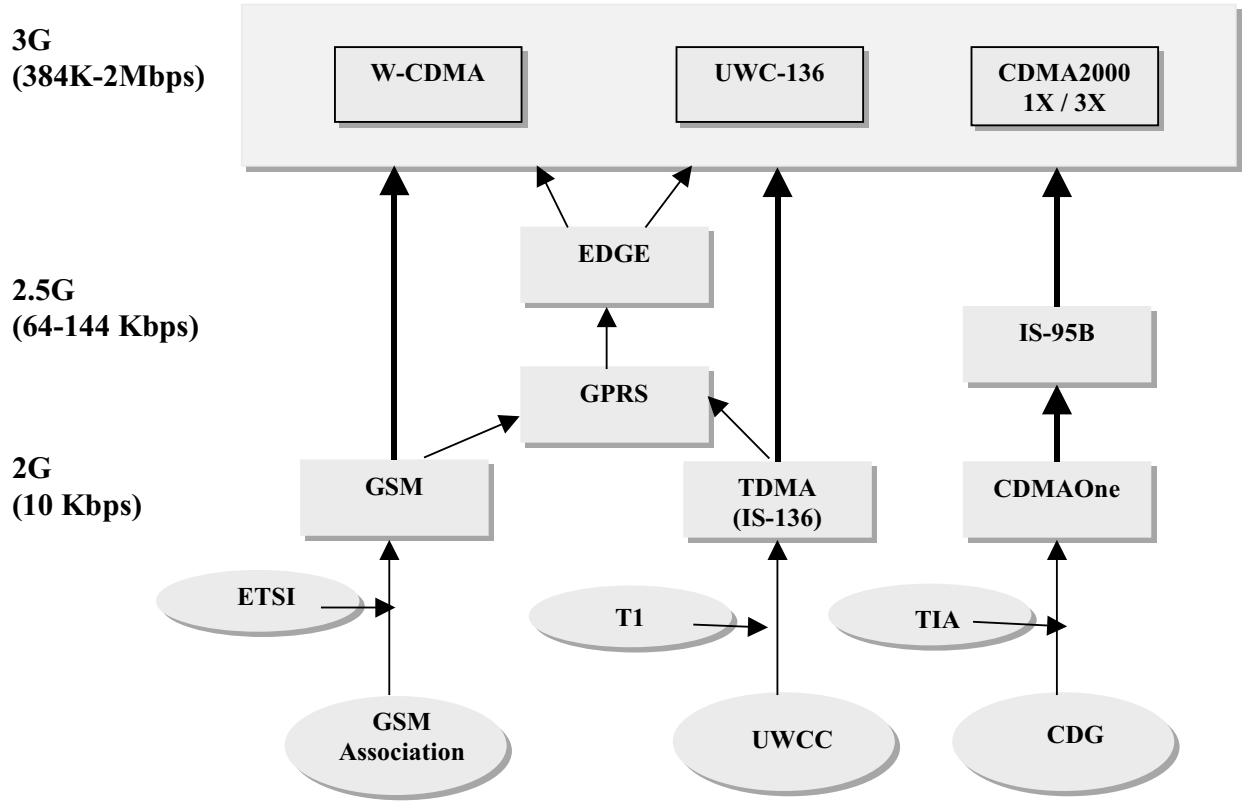
69 The digital subscriber line system is a way of increasing the capacity of existing fixed copper cables so that they can handle high-speed transmissions.

70 With a wireless local loop the end user can be reached without the need to pass through the existing fixed line network.

71 The "footprint" of a wireless telephone services provider is the total geographical area within which it can supply services using its own facilities. Operators with a large digital footprint can achieve greater efficiency and economies of scale than those with a smaller footprint.

72 The ITU International Mobile Telephony-2000 (IMT-2000) programme aims to achieve agreement on technical standards to facilitate interoperability or compatibility between the different technologies. This would open the way to interconnection between local, cellular and satellite systems, and thence to global coverage.

Figure IV.1
ROUTES TOWARDS THIRD-GENERATION MOBILE TELEPHONY



Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the International Telecommunication Union (ITU), "The road to IMT-2000", 2000 (http://www.itu.int/imt).

switching system that divides each 200 kHz channel into eight 25 kHz bands. The GSM Association, founded in 1987 and representing network operators, manufacturers and regulatory and administrative bodies, has the objective of promoting the use of this technology around the world. The European Telecommunications Standards Institute (ETSI), which was set up in 1988, is backing this initiative.

The main advantages of GSM are its geographical reach and its interoperability. Its weaknesses are its high cost (30% more expensive than the TDMA and CDMA options, according to Buckley, 2000) and its current speeds, which are not high enough to transmit data packets. The GPRS (General Packet Radio Service) and EDGE (Enhanced Data Rates for GSM Evolution) stages are designed to remedy these shortcomings until 3G W-CDMA (Wideband CDMA) is brought in (see box IV.1 and figure IV.2).

As well as being supported by the European governments, this option has the backing of the region's largest telecommunications operators (Deutsche Telekom, France Télécom, Telecom Italia, British Telecom and Vodafone, among others) and equipment makers (such as Siemens, Nokia and Alcatel). By January 2001, GSM had 456.7 million subscribers around the world and accounted for 70.6% of the digital market and 63.9% of the wireless market. In February 2001, the GSM Association had 519 members in 162 countries. The international GSM network is concentrated more in Europe (37.3%) and Asia (32.9%) than in North America (16.5%) and Latin America (9.4%). In addition to the European companies, members

Box IV.1

THE GSM ROUTE TO THIRD-GENERATION (3G) MOBILE TELEPHONY

First generation: analogue mobile telephones that can transmit only voice, not data.

Second generation (2G): this is the mobile telephony now in use, capable of transmitting voice and text over digital networks. The countries of the European Union (EU) have adopted GSM (global system for mobile communications) as their sole standard for digital mobile telephony. The maximum transmission speed of 2G networks is 9.6 kbps, which is considerably slower than the 56 kbps allowed by cable telephony and the 1 megabyte that cable modems are capable of. Solutions to these bandwidth problems are provided by 2.5G and 3G mobile networks. Some of the applications designed for this technological platform are now beginning to be used on a mass scale. In 2000, prepaid services accounted for 80% of the increase in GSM use (interview with Rob Conway in http://www.gsmworld.com).

- SMS (short message service) is a way of sending small amounts of information (text and numbers), known as “text messages”, to mobile telephones. SMS was the first technology to permit text to be sent via a mobile telephone. Although messages can be no longer than 160 characters and have to be written with the numeric keypad, SMS has become surprisingly popular, particularly among young people in Europe. As well as being a convenient way to send short messages to and from mobile telephones, SMS technology is secure and is rarely affected by high network use at peak hours. Its most important role has been as the first step in the development of mobile text transmission.
- WAP (wireless access protocol) allows larger amounts of more complex information to be sent to mobile telephones. As well as being superior to SMS in this respect, WAP technology gives mobile telephone users access to interactive content on the Internet and to other services such as video conferencing, video on demand and e-commerce. Information sent using WAP needs to be written in a special language, WML (wireless mark-up language), and it reaches the user through a “micro explorer” that operates like a personal computer Internet browser. The main characteristic of WAP is that it works independently of the wireless device (Palm Pilot, Psion) or mobile telephone used and is compatible with most wireless networks and operating systems. Although WAP is not the only technology of its kind, it is supported by most telecommunications, Internet and software companies, which are represented in the WAP Forum. Technologies that compete with WAP are HDML (handheld device mark-up language) and WebClipping, from Palm.
- So-called i-mode technology, introduced by one of Japan’s largest mobile operators, NTT DoCoMo, offers permanent Internet access through specially configured mobile telephones. Although this is available only in Japan, it is currently one of the most interesting on offer owing to the large number of people using it (20 million mobile telephone users in early 2001). The success of i-mode is due to three main factors. The first is ease of use, as users have only to press a button on their mobile telephone. The second is cost, since information is transmitted in packets and payment is therefore made only for information received. Thirdly, unlike WAP, i-mode does not require a special language like WML, but uses a simplified form of HTML (hypertext mark-up language) known as compact or cHTML. This enables content providers to develop applications quickly and easily. Because of this, i-mode provides access to around 500 major service providers in Japan and to another 4,000 unofficial i-mode sites set up by private individuals.
- Web Clipping is the Internet access solution developed by 3Com and Palm Computing for the PDA (personal digital assistant) market in the United States. It is currently available only with the Palm VII, a device that incorporates a modem providing integrated wireless service capabilities, although it has the same limitations as mobile telephones in terms of screen size and bandwidth. Web Clipping was developed to minimize these requirements by “clipping” relevant sections of HTML. Like many mobile technologies, Web Clipping is a packet switching system that sends only the portion of information that the user requests. Through a fixed Internet connection that they synchronize with their Palm terminal, users download a range of Web Clipping applications supplied by a given content provider. The applications downloaded are used as an interface with the Internet through which users request the information they require. User requests are received at palm.net, a network set up specifically for this service which selects or “clips” the relevant data from the Internet and sends them to the Palm VII terminal.

Box IV.1 (concluded)

Generation 2.5 (2.5G): the first solution found was to update existing 2G networking technology with intermediate technology known as 2.5G. Using WAP or other protocols, such as Japan's i-mode, with digital networks provides access to more complex services such as text and graphics transmission, fax, limited Internet access and basic e-commerce.

- HSCSD (high-speed circuit-switched data) is an enhanced GSM technology providing data transfer at a speed of 57.6 kbps. All it requires is software updating, which does not entail major new investment in the existing GSM network. It is based on circuit switching technology similar to that used in conventional telephone lines (a connection between two points that cannot be accessed by any other user while it is set up).
- GPRS (general packet radio services) allows information to be sent in packets at speeds of up to 115 kbps. It is also the first technology to offer permanent connectivity at an affordable price, as the user is charged only for information downloaded. The greater bandwidth of GPRS means it can be used for video conferencing, Internet access, e-commerce and other applications similar to those of portable computers. However, it requires a special terminal, and there are currently some doubts as to whether this will reach the market quickly enough to sustain the GPRS services now being tried out by companies such as Cellnet (British Telecom), T-Mobil (Deutsche Telekom), Sonera and Nokia.
- EDGE (enhanced data rates for GSM evolution) is the latest stage in the shift to 2.5G. It provides data transfer rates of up to 384 kbps over the same packet network as GPRS. It is capable of providing greater bandwidth and more sophisticated multimedia capabilities than GPRS. It is these features of EDGE that are stressed by network operators that wish to offer broadband services but have not yet obtained 3G licences.

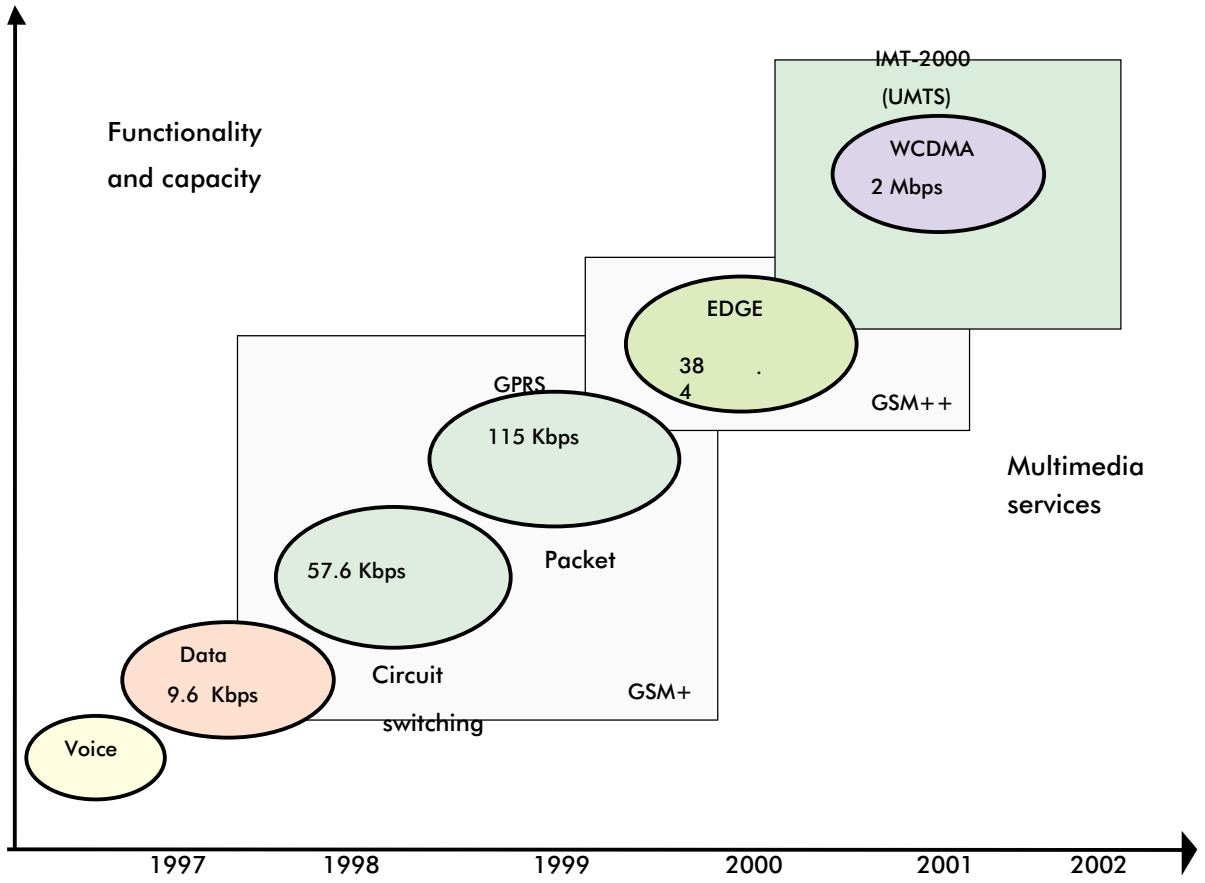
Third generation (3G): this is the next stage in the development of mobile networks to overcome the bandwidth constraints of GSM and other digital mobile networks. 3G is a completely new mobile network, known as UMTS (universal mobile telecommunications system). A standard is now being developed for this 3G system in Europe and other parts of the world. The International Telecommunication Union (ITU) is coordinating a harmonized international standard for 3G; its work in this area is based on the concept of a family of standards (IMT-2000) that can provide the greatest possible interoperability, rather than a single standard. One of the standards proposed for IMT-2000 is UMTS, which combines W-CDMA (wideband code division multiple access), TDMA (time division multiple access) and CDMA (code division multiple access). UMTS will allow text, digitalized voice, video and multimedia data to be sent at speeds of up to 2 megabytes per second and will have the bandwidth potential needed for video on demand, video conferencing and television.
UMTS differs from other mobile technologies in offering permanent, high-quality access to the Internet and other multimedia platforms. Mobile operators are currently trying to obtain, or have already obtained, 3G licences in Europe. As regards launch dates, Japan is expected to begin the service in 2001, followed by Europe and, later, the United States.

Source:ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the Hispano-American Association of Centres of Telecommunications Research and Enterprises (AHCIET), "Evolución de la telefonía móvil", 2000 (http://www.ahciet.es), and 3G Generation, 2001 (http://www.3g-generation.com).

of the GSM Association include Japanese firms such as NTT DoCoMo and J-Phone, and United States ones such as Voicestream, AT&T Wireless, BellSouth PCS, Omnipoint and Powertel. Latin American members include subsidiary or allied companies of Telecom Italia (Bolivia, Chile, Peru) and France Télécom (Dominican Republic), among others. GSM technology seems to be winning over new adherents, including some very important ones, such as AT&T and BellSouth, which had been determined backers of the TDMA (time division multiple access) option, but joined the GSM Association along with 59 other new members at the meeting held in Montreux, Switzerland, in October 2000.

TDMA is a digital mobile communications technology that allows each channel to be split into three sub-channels so that multiple communications can be sent simultaneously. TDM (time division multiplexing) technology has played a historically important role in the development of telephony because it has facilitated the

Figure IV.2
DEVELOPMENT OF GSM IN MOBILE TELEPHONY



Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by A. Macarrón, "La convergencia de Internet and las telecomunicaciones móviles: ¿la próxima 'killer application'?", PPT presentation, Cartagena de Indias Summit of the Hispano-American Association of Centres of Telecommunications Research and Enterprises (AHCIET), 6-7 November 2000 (http://www.AHCIET.net.es).

transition from analogue networks to digital ones by making it possible to use the existing long-distance network. It has been backed by UWCC (Universal Wireless Communications Consortium) ever since this association —which now has over 100 members— was founded in Washington in 1996. Moving TDMA towards 3G status involves two stages: IS-136 and IS-41. In late 1998, efforts began to be made to achieve the convergence of the TDMA and GSM technologies, which up until then had been rivals: on 11 December 1998, an agreement was reached between UWCC and ETSI (which backs GSM); on 19 December 2000, the Consortium recognized the ultimate goal of UMTS; on 11 January 2001, the Global Roaming Forum of the GSM Association included TDMA as a central component, and on 21 February 2001, at its world conference in Cannes, France, the GSM Association declared the wireless war over as a result of the above-mentioned agreements.

TDMA has a number of advantages. According to UWCC, it is the most cost-efficient option for switching from an analogue to a digital mobile system. Implementing TDMA-136 would require an investment of US$ 155 million, as against a cost of US$ 272 million for CDMA (UWCC, 2001). Furthermore, its compatibility with GSM means it has the potential for greater worldwide coverage. It is not very suitable for data transmission, however, without EDGE enhancement.

TDMA is the dominant technology in North America and Latin America. The main operators that

support this option and that are represented on the UWCC Executive Committee are large United States corporations such as the partners in Cingular Wireless (SBC Communications and BellSouth) and AT&T (since October 2000, AT&T and BellSouth have also been members of the GSM Association). Its promoters also include the Latin American subsidiaries and allied companies of these firms and of European enterprises such as Cable & Wireless, Telefónica de España and Telecom Italia. Some equipment manufacturers such as Lucent Technologies, Nortel Networks, Motorola and the United States subsidiaries of Nokia, Ericsson and Alcatel are also represented on the Executive Committee of the Consortium. The number of TDMA subscribers rose from 9.2 million in 1997 to over 53 million in the third quarter of 2000, and they are becoming increasingly concentrated in North America (up from 43.4% in 1997 to 51% in 2000) and Latin America (up from 29.3% in 1997 to 45% in 2000). By the end of 1999 there were 18.3 million subscribers in the United States, accounting for 41% of all digital mobile telephones in that country (FCC, 2000b). According to UWCC, Latin America is the greatest potential market for the TDMA option (UWCC, 2001).

CDMA (code division multiple access) is a digital technology for mobile communications that allows the signal to be combined with a code so that multiple messages can be sent simultaneously. This initiative is being promoted by the CDMA Development Group (CDG), which was set up in 1995 in Costa Mesa, California, and currently has 120 members. CDG is supported by the Telecommunications Industry Association (TIA), which was founded in Arlington, Virginia, in 1988.

According to McCaffery and Buckley, CDMA is a better technology than GSM or TDMA; it would be cheaper to implement, have greater capacity (between three and five times the call capacity), be more secure and provide a simpler route to 3G, and it is virtually ready now (McCaffery, 2000; Buckley, 2000 and). Nonetheless, this option has not become the dominant technology. If it does prove to be the superior technology and nonetheless fails to take the lead, the situation may be reminiscent of the struggle between the VHS and Beta technologies for video cassette recorders in the 1980s, in which VHS —the technologically inferior option— ultimately prevailed. The CDMA growth path to 3G entails two stages: IS-95B and CDMA2000 (see figure IV.1). The latter stage consists of two phases, the first of which is almost ready.

CDMA is most widely used in Asia, North America and Latin America. The main operators backing this option are the North American companies Verizon Wireless (produced by the merger of Bell Atlantic and GTE, plus the assets of AirTouch, a United States subsidiary of the British company Vodafone),[73] Sprint PCS, BellSouth International, Bell Canada Mobility and Leap Wireless, along with Telmex of Mexico and a number of Asian companies, including Hutchison of Hong Kong, SK Telecom and KT Freetel of the Republic of Korea, and KDDI of Japan. CDMA is also supported by subsidiary and allied companies of these firms and affiliates of others, such as Telefónica de España in Latin America. A number of equipment manufacturers, such as Lucent Technologies, Motorola, Nortel, Ericsson, Samsung, Hyundai and LG, are also with CDG. In 1997 this technology had 4.3 million subscribers, a figure that had risen to 71 million by September 2000. In 1997 these subscribers were mostly in Asia (79%) and, to a lesser extent, North America (21%), but growth was subsequently faster in North and Latin America, and by September 2000 these two regions had come to account for 37.2% and 14.2%, respectively, of all subscribers, whereas Asia's share had fallen to 47.2%. In 1999, the CDMA option had 15.8 million subscribers in the United States, accounting for 36% of all digital mobiles in that country, according to the Federal Communications Commission (FCC). The promoters of CDMA2000 (the third generation of CDMA) have recently been insisting that their network will be ready for implementation fairly soon in some Asian countries and the United States (before the UMTS network in Europe): during 2001 in The Republic of Korea (SK Telecom and KT Freetel) and Japan (KDDI), and in 2002 in the United States (Verizon and Sprint) (*TotalTelecom*, 22 February 2001). Great efforts in this regard are also being made in Latin America, particularly Brazil.

By late 2000 there were 637 million digital operating technology subscribers in all. The GSM option accounted for 440 million or 69.1% (as against 46 million in 1996), TDMA/I-136 for 64 million or 10% (9.2 million in 1997) and CDMA for 82 million or 12.9% (4.3 million in 1997). As already mentioned, the GSM system is dominating in Europe and Asia, while in North America and Latin America, TDMA and CDMA are the strongest options.

If it is assumed that none of these technologies is intrinsically superior to the others, then the operators' strategies will ultimately be the deciding factor (*Telecomunicaciones Online*, 2000). From the point of

73 Vodafone is carrying out GSM/CDMA interoperability trials in Europe.

view of corporate strategy, for example, the purchase of the United States company Voicestream by Deutsche Telekom is a concrete step towards establishing the GSM system worldwide, while the alliance forged by NTT DoCoMo with Hutchison 3G, KPN Mobile NV and Telecom Italia is an effort to establish the company's i-mode technology in Europe (see the section on DoCoMo in chapter III). The decision by Vodafone to integrate its United States AirTouch assets into Verizon Wireless could be a way of achieving a strong position both in GSM in Europe and Asia and in CDMA in North America and Latin America. BellSouth may be aiming for something similar by joining the GSM Association while maintaining its position in TDMA in North America and Latin America. It seems clear that the technological decisions being taken today will affect the competitiveness —and perhaps the survival— of the operators of tomorrow.

Technological change thus provides a powerful competitive advantage for the companies that drive it, while at the same time it increases the level of risk and uncertainty in the telecommunications industry. If successful, the innovator threatens the position of companies that do not quickly adopt the new technology, but it also takes the risk that its initiative may be a commercial failure. In telecommunications, the most innovative segment recently has been cellular mobile telephony. In the space of just 15 years, the industry has established first-generation analog mobile telephony and moved on successfully to 2G digital telephony, and the launch of the third generation is in the offing. This move to a more sophisticated generation has given rise to fierce competition between companies as they strain to keep up with the pack or, in some cases, simply to avoid falling prey to "killer applications", i.e., commercially viable innovations with so many competitive advantages that they literally destroy or "kill off" the competition, thereby introducing a destabilizing element into the industry.[74] The intense struggle being waged by telecommunications operators in Europe to obtain a competitive digital footprint for the third generation has led them to spend vast sums of money on licences (to which they will have to add the even vaster sums needed to build the infrastructure) and is destabilizing the entire industry, as well as overshadowing the future of the third generation (*Total Telecom,* 2001b and *Le Monde*, 2001a).

Operators' efforts to be among the first to offer 3G mobile services are intertwined with the competition among the different technological options being backed by the various companies. As has been seen, there are a number of technological routes to the third generation, and the issue of which choice is to prevail is a highly strategic one. Companies are striving to see their technological option win out over the rest and thus to form part of the group that will help shape the industry and markets of the future and draw up the rules and standards for the sector. In sectors that are highly technology-intensive, new types of knowledge-based oligopolies are emerging (UNCTAD, 1999c). These new oligopolies are dynamic and seek to reduce risk and uncertainty by adopting a flexible approach that enables them to cope with inevitable change, rather than a rigid determination to defend the status quo. Instead of concentrating on ways of creating static entry barriers based on size, they seek to take the lead in marking out the shifting frontiers of the sector and in controlling and setting the direction for technology, production standards and competition rules. They are made up of networks of companies rather than individual firms, and strategic alliances are what constitute their basic structure and main building blocks (UNCTAD 1999c).

Competition among telecommunications companies, both in the race towards 3G and in the struggle to establish the different mobile telephony technologies, could drive the industry towards levels of risk and uncertainty that would threaten the stability of the world economy. As the ITU IMT-2000 initiative suggests, it would be desirable for this competition to be channelled into a quest for compatibility and interoperability of the different technologies, something that would also bring greater benefits to users.

2. Increased competition

Another factor driving the globalization of the telecommunications industry has been its attractiveness for FDI owing to the privatization of almost all the dominant national operators, which has

74 Not all "killer applications" are successful, and many of them have not yet borne fruit (video conferencing, video on demand, interactive television, WebTV and others) (Macarrón, 2000).

lifted the entry barriers for private operators, and the auctioning of mobile telephony licences. Most countries are now at the stage of opening up the sector to more competitors. The results have varied considerably, both between different telecommunications market segments and between different countries and types of companies.

Competition has not emerged to the same degree in all market segments. In the local fixed-line segment, privatization of the dominant operator has generally resulted in the public-sector monopoly being replaced by a private-sector one, even though the ultimate objective may be to open up the market to competition. In the long-distance segment, competition has increased around the world, bringing down prices to such a degree that this service has come to be classed by some as a "commodity" (*TeleGeography*, 2000 and Minges, 1999). In the mobile telephony segment, competition was generally greater during the industry's early years, as there was no need to use the networks of other operators. It might be concluded that there is an inverse relationship between the maturity of a segment and the level of competition to be found there; in other words, the newer segments are more competitive (see figure IV.3).

Not only have the effects differed between segments, but change has not happened in the same way or at the same time in major markets such as the United States and the European Union (EU). In Latin America, there have also been large differences between countries.

In the twentieth century, federal authorities in the United States questioned the dominance of AT&T Corporation in basic telecommunications (AT&T, 2001). In 1913, AT&T was obliged under the Kingsbury Agreement to give outside companies access to its network and to dispose of its interests in the Western Union telegraph company. In 1956, a ruling negotiated between AT&T and the Department of Justice restricted the company's activities to regulated telephony in the national telephone system, prohibiting it from acting in other areas or industries. These restrictions were lifted in 1982, at which time it was agreed that AT&T would be split up. As a result of this break-up, which was implemented in 1984, the company's regional basic telephony subsidiaries were spun off as independent corporations, giving rise to the Regional Bell Operating Companies (known as "Baby Bells").[75] From then on, these new companies were to provide basic telephony while AT&T specialized in long-distance services. In 1993, the United States Congress ruled that competition should be a fundamental objective in what it termed "commercial mobile radio services" (FCC, 2000b). In the new telecommunications act of 1996, an attempt was made to enhance this process by allowing greater competition between long-distance and local telephony. In exchange for opening up their markets to greater competition, local telephone operators were offered the chance to enter the long-distance segment. Thus, competition was introduced into the basic telephony segment of the United States telecommunications industry by way of a long, incremental process that centred on antitrust measures and initiatives to promote greater competition in other segments.

For all the efforts to boost competition in the United States, little has been achieved, although the results vary between market segments.

In local telephony, the actual changes achieved were far smaller than anticipated and did not match up to the expectations created by the 1996 telecommunications act, one of whose objectives was to stimulate competition among the seven Baby Bells in their respective regional markets. What has actually happened has been the complete reverse: instead of trying to win market share in their rivals' regions, the Baby Bells have merged with one another, with the result that their number has now fallen to four,[76] and have confined themselves to their respective "domains" in regional local telephony.[77] Newly entering competitive local exchange carriers have not succeeded in attaining a significant market share (in 1999 they accounted for less than 6.7% of all main lines) (FCC, 2000a). The result is that service prices have barely changed at all. In fact, according to FCC data, they

75 In 1984, AT&T was split up into eight companies: a long-distance service provider (AT&T) and seven regional local service providers (the Baby Bells). The Baby Bells were Ameritech, Southwestern Bell (SBC), Pacific Telesis, Nynex, Bell Atlantic, BellSouth and US West.

76 SBC bought Pacific Telesis and Ameritech, and Bell Atlantic bought Nynex. The four Baby Bells now remaining are Verizon (the name adopted by Bell Atlantic after it absorbed GTE, another telecommunications company), SBC Communications, US West and BellSouth.

77 William Kennard, President of the United States Federal Communications Commission until early 2001, has said: "…In the United States, the courts decreed that transmissions across our state lines, what we call long distance, be made competitive, but it took 15 years to make that a reality. Now we are trying to create the same kind of competition in the local telephone market, inside our state borders. Today that market is where long distance was 15 years ago, but we do not have the luxury of 15 more years to make this happen. The same industry that shook our hands in 1996 handed us lawsuits in 1997. This year, some companies have used the budget process to try to undo agreements industry made with us earlier in the year. Industry tries to achieve in a lawmaker's office what they could not achieve in open hearings before our agency." (Kennard, 2000).

actually rose by 3% over the 1990s (CNNfn, 2001a and 2001b).

In long-distance telephony, the dominance of AT&T as a service supplier has greatly decreased. Before 1984 the company had more than 90% of the market, but by 1999 its share had fallen to less than half (40%), and new entrants had established a stronger presence, with WorldCom accounting for 25% of the market and Sprint for 10% (FCC, 2001). There had also been a proliferation of smaller operators. This increased competition has driven down prices substantially, particularly for international calls. Between 1992 and 1999, average revenue per minute for operators in the long-distance segment fell from US$ 1.04 to US$ 0.56 at current prices for international calls, and from US$ 0.15 to US$ 0.11 for national ones (FCC, 2001). Progress towards a more competitive market in long-distance telephony has been substantial, and although concentration is still high (three large operators have 75% of the market between them), there is no sign of any movement towards consolidation among the firms that are currently dominant. Rather, the tendency is towards greater fragmentation.

In the cellular mobile telephony market, where competition between operators has been possible from the outset, 88% of the United States population can currently choose between three or more different mobile telephony service options, but the tendency lately has been for a few operators to take an increasingly large share of the market. Mergers and acquisitions have left just three companies with almost two thirds of all subscribers: Verizon Wireless, owned by Verizon/ Vodafone (30%); Cingular, owned by SBC/BellSouth (19.2%); and AT&T Wireless, owned by AT&T and DoCoMo (12.9%) (FCC, 2000b).[78] Service rates had fallen substantially (from US$ 96.83 a month in December 1987 to US$ 39.43 in December 1998), but then began to trend upward in 1999. Recently, in January 2001, 422 mobile telephony licences were auctioned off in the United States. The three main operators named above bought 236 of them for sums amounting to 80% of the total raised by the auction.[79] To prevent too high a proportion of the licences from falling into the hands of the three dominant companies, FCC had placed some of them off limits by reserving them for small operators. The three companies circumvented this restriction, however, by entering into partnerships with some of these small operators (CNNfn, 2001c).

Thus, although one of the countries that pioneered competition in telecommunications has indeed made some progress in this area, the results have varied by market segment and have not been entirely satisfactory overall. It is undeniable that the thrust of regulation in the sector has been to enhance competition, but the mergers and acquisitions carried out by the dominant companies, and endorsed by the authorities, have to some extent cancelled out the effects of this approach.

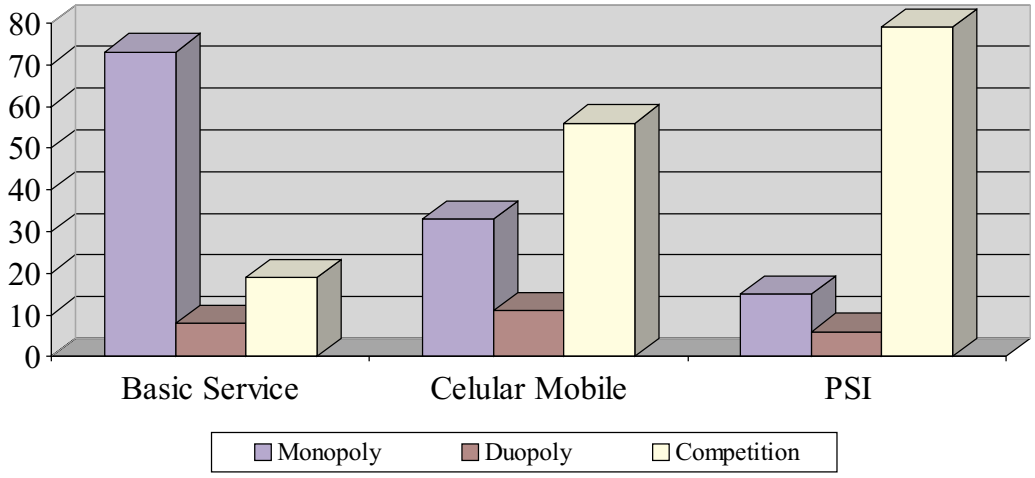
In the EU, by contrast with the United States, the dominant operators have traditionally been State companies. Great Britain was the first country to introduce competition when it awarded Mercury, a private-sector company owned by Cable & Wireless, a licence to operate the full range of services nationally. This step, which was taken in 1982, was followed in 1984 by full privatization of British Telecom (BT). The two companies —BT and Mercury— operated as a duopoly until 1991, when the market was opened up to competition (AHCIET, 1999). In addition, the concept of "asymmetrical regulation" was introduced to favour new entrants that had to compete with the established operators. In other European countries, by contrast, the dominant operators were privatized later (second half of the 1990s) and in a gradual and incomplete fashion, and market opening was gradual. To counterbalance this, measures were introduced to limit anticompetitive practices by the dominant basic telephony operators, which took the form of high charges and interconnection fees and cross-subsidies. In 1997, regulatory changes in the home countries of the main transnational telecommunications corporations were reflected at the multilateral level in the Fourth Protocol to the World Trade Organization (WTO) General Agreement on Trade in Services (GATS), which was signed by 69 countries. The aim of this protocol is to open the way, in the basic telephony segment, to privatization of dominant operators, access to their facilities for outside companies and greater competition through market liberalization.

The new regulations designed to encourage greater competition did affect price levels and supply concentration in the countries of the EU; between 1997 and 1999, the national and international long-distance market shares of the dominant operators fell substantially (from 93% to 81% and from 97% to 88%,

78 Deutsche Telekom, which planned to enter the United States mobile telephony market by purchasing Voicestream, has been held up by the fact that under United States law special approval from Congress is required in cases where companies are more than 25% State-owned (the German Government owns a large share (over 50%) of the company).

79 Verizon paid US$ 8.8 billion for 113 licences, Cingular US$ 2.3 billion for 79 licences and AT&T US$ 2.9 billion for 44 licences (CNNfn, 2001c).

Figure IV.3
TELECOMMUNICATIONS: THE COMPETITIVE SITUATION IN DIFFERENT SEGMENTS, 1999
(Percentages of countries)



Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by L. Mannisto, "Examining the Opportunities and Challenges for ISPs in Developing Countries", document presented at the ISP forum, IIR, Amsterdam, 30 November 1999 (http://www.itu.org).

respectively). In local telephony, however, the changes were smaller (from 99% to 96%). There was also an appreciable reduction in long-distance rates, particularly in the international segment. Between 1997 and 2000, average prices in the EU countries, weighted by the number of inhabitants, fell by 32% or so for households and by 34% or so for businesses. For national long distance, the reduction was smaller, the figures being 9.5% and 20%, respectively. By contrast, local telephony rates rose over the same period, with the weighted average price of a three-minute call increasing by 15.1% and that of a 10-minute call by 7.5% (European Commission, 2000). The divergent paths taken by local and long-distance rates are largely the result of more accurate cost allocation and the ending of cross-subsidies between telephony segments, which had made local calls artificially inexpensive.

Since growth in cellular mobile telephony, by contrast with fixed-line telephony, has not been constrained by the need to use the facilities of third parties,[80] progressively increasing competition has been a feature of the segment since the outset. The EU is creating a universal mobile telecommunications system within the framework of the ITU IMT-2000 initiative to support the introduction of coherent mobile systems from 1 January 2002. As part of this process, 43 new licences (four to six per country as a rule, valid for 15 to 20 years) have been awarded (generally by auction, but in some cases by a comparative evaluation process) for 3G mobile telephony[81] (see table IV.1).

In Europe, the sector's attention is focused entirely on these new cellular mobile telephony licences and the companies that have purchased them. The most prominent purchasers of these are two corporations that have the potential to achieve a very large digital footprint in the EU: Vodafone (with eight licences, in Austria, Germany, Italy, the Netherlands, Portugal, Spain, Sweden and the United Kingdom) and France Télécom (with seven licences, in Austria, Germany, Italy, the Netherlands, Portugal, Sweden and the United Kingdom). At an intermediate level are four companies

80 Except for calls ending in the fixed-line network.

81 The latest auctions held in Italy, Switzerland and France did not attract many bidders, presumably because of the high cost involved and the difficult financial situation of the main international operators, which have been severely affected by falling share prices.

Table IV.1
THIRD-GENERATION (3G) LICENCES IN THE EUROPEAN UNION

Country / - Selection method - Number of licences - Validity (years)	Total value (millions of dollars) - per capita	Current situation	Companies awarded licences	Known corporate affiliation
Austria - auction - 6 - 20	714 - 88	Awarded in November 2000	Connect Austria [a] Hutchison Tele.ring Max.mobile [a] Mobilkom [a] 3G Mobile	France Télécom Hutchison Vodafone Deutsche Telekom Telekom Austria Telefónica (Spain)
France - official evaluation		Suspended in January 2001		
Germany - auction - 6 - 20	46 214 - 562	Awarded in August 2000	T-Mobil [a] Mobilcom [a] VIAG [a] Group 3G D2 [a] E-Plus	Deutsche Telekom France Telecom British Telecom Telefónica / Sonera Vodafone Hutchison
Italy - auction - 5 - 15	10 084 - 175	Awarded in October 2000	Omnitel [a] Ipse Andala Wind [a] TIM [a]	Vodafone / Verizon Telefónica (Spain) Hutchison ENEL / France Télécom Telecom Italia
Netherlands - auction - 5 - 15	2 515 - 160	Awarded in July 2000	Libertel [a] KPN Mobile [a] Dutchtone [a] Telfort [a] 3G Blue	Vodafone KPN (Neth.) / DoCoMo France Télécom British Telecom Deutsche Telekom
Portugal - official evaluation - 4 - 15	357 - 36	Awarded in December 2000	Telecel [a] TMN [a] Oni Way Optimus [a]	Vodafone Portugal Telecom Varias France Télécom
Spain - official evaluation - 4 - 20	No cost	Awarded in March 2000	Telefónica [a] Airtel [a] Retevisión [a] Xfera	Telefónica (Spain) Vodafone Telecom Italia / Endesa Vivendi / Sonera
Sweden - official evaluation - 4 - 15	0.04	Awarded in December 2000	Europolitan [a] Tele2 [a] Orange Hi3G Access	Vodafone NetCom France Télécom Hutchison
United Kingdom - auction - 5 - 20	35 411 - 595	Awarded in April 2000	British Telecom [a] Vodafone Orange One-2-One TIW	British Telecom Vodafone France Télécom Deutsche Telekom Hutchison / TIW (Can.)
EU total 43 licences	95 295 - 394			

Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the International Telecommunication Union (ITU), "Status of IMT-2000 (UMTS) 3G licensing in Western Europe: situation at February 2001", 2000 (http://www.itu.org), and 3G Generation, 2001 (http://www.3g-generation.com).

[a] Existing GSM operator.

with smaller digital footprints: Hutchison (United Kingdom), a subsidiary of the Hutchison Whampoa Group based in Hong Kong SAR (with five licences, in Austria, Germany, Italy, Sweden and the United Kingdom), Deutsche Telekom (with four licences, in Austria, Germany the Netherlands and the United Kingdom), Telefónica de España (with four licences, in Austria, Germany, Italy and Spain) and British Telecom (with three licences, in Germany, the Netherlands and the United Kingdom). Lastly, there are companies that have just one or two licences and that have not been able to put together Europe-wide systems.

Vodafone and France Télécom have significant competitive advantages over other operators, such as Deutsche Telekom and British Telecom. There are two main reasons for this: on the one hand, they have more licences, which gives them a larger digital footprint, and on the other, they have acquired not only licences with an extremely high per capita cost (Germany and the United Kingdom), but also some relatively cheap ones (Austria, Italy, the Netherlands, Portugal, Spain and Sweden), which means there is scope for cross-subsidization between countries. By contrast, the 3G digital footprints of Deutsche Telekom and British Telecom are heavily concentrated in countries where licences were very expensive. Another striking aspect of this process is the entry of Hutchison Whampoa Group from Hong Kong SAR. While some analysts, such as Forrester Research (*The Economist*, 3 February 2001), suggest that the mobile telephony industry in Europe will end up in the hands of just four operators (Vodafone, Deutsche Telekom, France Télécom and British Telecom), Hutchison's partnership with DoCoMo of Japan and KPN Mobile of the Netherlands could give DoCoMo a foothold in the European 3G market. At the same time, it would seem that the competitive position of companies such as Telefónica de España and Telecom Italia is not as strong as it might be.

To sum up, it can be seen that in the United States and the EU, efforts have been made to foster greater competition in the telecommunications industry. Progress in this respect in long-distance telephony, for example, has been substantial. By contrast, enhancing competition in basic telephony has proved more difficult, despite the break-up of AT&T and the privatization of dominant operators in Europe. As regards mobile telephony, the extra competition created by awarding new licences seems to have been partly offset by a simultaneous process of consolidation among the leading companies. In other words, any evaluation of progress in strengthening competition in the telecommunications sector needs to distinguish between segments, countries and companies.

The Latin America and Caribbean region has not been unaffected by the huge changes that have taken place in the world telecommunications market. Most State-owned operators in Latin America have been privatized over the past 10 years, and the level of private-sector involvement in the telecommunications sector is extremely high, with the major international operators playing a particularly important role (see boxes IV.2, IV.3, IV.4 and chapter II). Between 1990 and 1999, the telecommunications industry made considerable progress in the main countries of the region. In almost all of them, the number of main and residential lines per 100 inhabitants doubled over the period, while in the case of Chile it almost trebled; the number of cellular telephone subscribers per 100 inhabitants rose spectacularly; the number of faults per 100 inhabitants fell, albeit less so in Chile; and service charges and costs tended as a rule to decline in all the countries, although in Argentina monthly charges for business lines and cellular telephones rose in relative terms, while in Mexico business connection charges remained high in comparative terms (see table IV.2). It can thus be seen that, although with large differences between countries, the performance of the telecommunications industry in Latin America improved substantially during the 1990s.

In the early 1990s, the authorities saw privatization of public-sector assets as an opportunity to improve the delicate economic situation then existing in many of the region's countries. With the notable exception of Brazil, increasing competition was not one of the prime objectives of privatization policy in the Latin American telecommunications sector.[82] Rather, the aim was to maximize FDI inflows and regain access to international financial markets (Argentina) or to defend an important national operator (Mexico) (see boxes IV.2 and IV.3). In fact, the long exclusivity periods granted to companies participating in these processes ran counter to all recommendations for achieving greater competition in the sector. Generally speaking, furthermore, there were no formal arrangements for policy analysis or even regulation: the rules governing the sector were generally established by decree; specific legislation and regulatory authorities were often created only after State

82 In the case of Chile, which pioneered telecommunications privatization in Latin America, although the new legislation (1982) does not countenance a legal monopoly in any service, in practice the market had monopoly characteristics until 1994 in long distance, and still does in basic telephony. In an initial stage, which lasted until 1990, the emphasis of regulation was on the sale of State-owned enterprises. In a subsequent stage, during the 1990s, the focus was on the structure of the sector, and particularly on competition (see chapter II).

Box IV.2

ARGENTINA: THE COST OF PRIVATIZATION WITHOUT COMPETITION

In 1989, at a time of deep economic crisis, the authorities appointed by the newly elected President of the Republic, Carlos Menem, decided to privatize telecommunications. Their intention was to make privatization of the Empresa Nacional de Telecomunicaciones (ENTEL) a "test case" that would convince international investors of the firmness of their commitment to economic liberalization and thereby open the way to FDI and access to international financial markets. Greater priority seemed to be given to setting deadlines for the operation than to laying down sectoral objectives; however, and within 13 months, the legal framework for privatization, the specifications and the international tender conditions were all in place, and ENTEL was transferred to its new owners in November 1990.

For the purposes of local fixed-line telephony services, the country was divided into two areas, a southern zone and a northern zone, each of which had to be operated by a different consortium. To be awarded a zone, a consortium had to include at least one operator with international experience. In an initial stage, 60% of the capital of ENTEL was transferred. Then, in 1992, another 30% of the company was floated on the stock market, with the remaining 10% being distributed to employees. For the sale of the 60% stake, a minimum cash payment of US$ 214 million was required. The winning consortium would be the one that offered the largest quantity of debt securities in addition to the cash amount. Telefónica of Argentina (a consortium headed by Telefónica de España in partnership with CEI -an alliance between Citibank and the local Banco República group- and other local groups, such as Pérez Companc, Techint and Soldati) prevailed in both zones. It chose the southern one, and the northern zone then went to Telecom Argentina (a consortium led by France Télécom and Telecom Italia). In addition to the cash amount, Telefónica paid out US$ 2.72 billion in debt securities (with a market value of US$ 416 million) and Telecom US$ 2.308 billion (US$ 353 million at market prices). In addition, the two consortia were authorized to operate international long-distance services as a shared monopoly through Telintar, a jointly owned company. They were awarded a seven-year exclusivity period, with the option of a further three years subject to certain targets being met (expansion of the network and improvements in service quality). The reason for splitting the country into two zones was to create two companies of similar size that would be in a position to compete with one another at the end of the exclusivity period and that could be compared for the purposes of performance measurement.

In the cellular mobile telephony segment, the licences were awarded in such a way that the country was divided into two main areas: the "Area Múltiple Buenos Aires" (AMBA) or Buenos Aires Multiple Area and the "interior" area, covering the rest of the country. In AMBA, the first licence was granted in 1988 to Radiocomunicaciones Móviles Movicom, controlled by BellSouth, which operated as a monopoly until 1993. In the "interior" area, the first licence was obtained by the Compañía de Teléfonos del Interior (CTI), a consortium whose members were the United States companies GTE and AT&T and a local group, Agea/Clarín, which operated as a monopoly until 1996. Initially, the two companies that were dominant in mobile telephony -BellSouth in AMBA and GTE in the "interior" area- were able to operate exclusively in their respective areas; then it was decided to move from monopoly to duopoly by authorizing the companies that dominated basic telephony to enter the mobile communications segment. It was thus that, in 1993, Miniphone, a company jointly owned by Telefónica of Argentina and Telecom of Argentina, acquired a licence to operate the second cellular telephony frequency band in AMBA, in duopoly with Movicom. Later, in 1996, the "interior" area was divided into northern and southern zones. In the former, Telecom Personal (owned by Telecom of Argentina) obtained two licences, while in the latter, Unifón (Telefónica of Argentina) purchased two as well, which meant they could operate in the very regions where they had a monopoly position in the basic telephony segment.

The restructuring of the sector was carried out without any changes to the telecommunications act in force since 1978, and the sale of State assets to private companies predated the creation of a regulatory framework. The sectoral regulator the National Commission of Telecommunications (CNT) was created by decree, rather than by an act of Congress, shortly before ENTEL was transferred to the private sector and only came into operation after the transfer had taken place. CNT was subsequently subjected to government intervention on a number of occasions, and functions and responsibilities were systematically stripped from it and transferred directly to the national executive.

The original concession contracts were amended repeatedly, which triggered renegotiations and produced a very troubled atmosphere in the sector. One example of this is the series of changes to the rules on pricing. The tender invitation stated that the mechanism chosen to regulate rates was the price cap, i.e., pre-set rate reductions from a starting price

Box IV.2 (continued 1)

consumer price index (CPI) minus a predetermined coefficient of efficiency. The basic rate at the start of the process was to be one that guaranteed a minimum return of 16%. If this percentage were exceeded, rates would have to be reduced until this level of return was reached. When the transfer documents were signed (by which point the basic rate had already been increased very substantially), at the winning companies request provision was made for service rates to be adjusted for exchange rate movements and the rate of return adjustment was discontinued. According to calculations by the American Chamber of Commerce, the rate of return for the financial years 1990/1991 (10 months), 1991/1992, 1992/1993 and 1993/1994 was 41.3%, 42%, 42.4% and 36%, respectively (Abeles, Forcinito and Schorr, 1999). In March 1991, indexation mechanisms were outlawed with the passage of the Convertibility Act. Despite this, Decree 2585/91 allowed pulse values to be set in United States dollars and adjusted for half-yearly changes in the United States CPI. The same decree also provided, among other measures, for a rate restructuring that allowed reductions in long-distance rates (which were subject to "call back" competition) to be offset by price increases for urban service, a cross-subsidy mechanism that was illegal under Decree 677/90. These provisions opened the way to a reweighting of telephone rates in January 1997 (by virtue of Decree 92/97) that raised the cost of urban calls and reduced the cost of long-distance ones.

Decree 92/97 also prepared the ground for the award of PCS mobile telephony concessions. The two companies that dominated basic telephony were excluded from this process, but a subsequent measure (Decree 266/98), lifted this prohibition, and allowed them to participate in the bidding. By favouring the two main operators at the expense of users, these successive changes to the rules governing the sector have been instrumental in damaging its image in the country.

During the exclusivity period, the two main operators made substantial investments that resulted in considerable growth in the sector: according to CNT data, US$ 16.674 billion was invested between 1990 and the first quarter of 1998, of which 74.9% went into basic telephony (CEP, 1999); telephone density increased from 9.3 in 1990 to 20.1 in 1999 (see table IV.2); and the percentage of the network that was digitalized rose from 13.2% in 1990 to 100% in 1998 (ITU, 2000c). As regards the way the companies are run, they have reduced employment overall, by 34% in the case of Telefónica and 35.1% in that of Telecom (CEP, 1999). Cutbacks in staff and investment in network expansion have been reflected in strong productivity growth: the number of lines per employee rose from 74 in 1990 to 336 in 1998 (Abeles, Forcinito and Schorr, 1999). These improvements in the companies' efficiency led to substantial profit growth and also, although to a lesser extent, lower rates. Between 1991 and 1997, the profits of Telefónica and Telecom rose by 249.8% and 411.7%, respectively (CEP, 1999). During the period 1991-1998, in fact, the two companies accrued profits of US$ 4.776 billion (Abeles, Forcinito and Schorr, 1999). This performance has propelled both firms into the ranks of the country's largest business enterprises in terms of sales and profits.

Between 1990 and 1998 overall telephone costs fell by 23.5% (calculated on the basis of a weighted basket of residential and business telephone costs), when measured in current dollars. However, residential and business prices moved in very different directions: while the cost of the business services basket fell by 44.2%, that of the residential basket rose by 11.3% (CEP, 1999). This difference became particularly pronounced from 1997 onward, owing to the reweighting of rates and increased competition in the provision of data services to businesses: during the three-year period 1996-1998, residential costs rose by 25.9% in current dollars while business costs fell by 20.9% (CEP, 1999).

When the seven-year exclusivity period ended in November 1997, the Government designed the Telecommunications Liberalization Plan (Decree 264/98), a programme of market opening administered and agreed upon with the two licensees. Under this plan, exclusivity was renewed for a further two years, until November 1999, at which time the licence areas were extended to cover the whole country. This was accompanied by gradual liberalization: public, rural and semi-rural telephone services were opened up in March and June 1998, data transmission within Mercosur was liberalized during 1999, and two new operators were allowed to enter the local and long-distance service segments in November 1999. Then, in November 2000, local telephony was opened up to full competition, with all companies applying for licences being authorized to operate in the segment.

The market opening conditions of the Telecommunications Liberalization Plan were set on "the basis of the rights of existing providers being recognized" (Decree 264/98). The intention was to reward those who had already invested in the country, but the corollary was that new investors were discouraged from entering the market. Thus, the "prior existence" condition, for example, stipulated that to be able to apply for basic telephony licences in November 1999, operators had to have held licences to provide telecommunications services in the country since before May 1998, which closed the door to new entrants. This desire to favour existing operators was also reflected in a series of regulatory

Box IV.2 (continued 2)

provisions or omissions that created major barriers to the entry of new competitors in both basicand mobile telephony. These barriers included the rigorous requirements and commitments imposed on new entrants (particularly the requirement to construct a network of their own and provide a certain minimum level of coverage); high interconnection fees and the absence of number portability.

The liberalization timetable and the conditions that had to be met by new entrants were designed to prevent the problem of market skimming, fragmentation that might prove counterproductive (in terms of economies of scale and scope) as well as "ruinous competition", and to ensure the solidity of the companies operating in the market. The end result was that the companies which obtained local and long-distance service licences in November 1999 were the two mobile telephony service providers that were not linked to Telefónica or Telecom: Compañía de Teléfonos del Plata (created by BellSouth-Movicom) and Compañía Telefónica Integral (GTE-Clarín).

Some five months previously, the same four basic telephony licensees had shared between them the 12 PCS mobile telephony licences auctioned off in June 1999, which, in accordance with Decree 266/98, covered the AMBA and the southern and northern zones of the "interior" area (four licences per area). Of the two highest-frequency bands in the AMBA, one was acquired by a consortium led by Telefónica and Telecom and the other by a consortium headed by GTE. The two lowest-frequency bands were secured by Movicom (BellSouth) and Miniphone (Telefónica/Telecom). In the southern zone of the interior, the first two bands went to Telecom and Movicom, and the other two were awarded to Unifón (Telefónica) and CTI. Lastly, in the northern zone, the high-frequency bands were awarded to Telefónica and Movicom, and the low-frequency ones to CTI and Telecom.

The change of Administration in late 1999 led to renewed debate over the methods used to liberalize the telecommunications market. The points at issue were mainly the licensing system, interconnection fees and number portability. At length, in August 2000, a new decree was signed, providing, among other measures, for liberalization of the licensing system to allow any operator to enter the market without preconditions, a 53% cut in interconnection fees, number portability and the creation of a special Universal Service Fund, to which operators were to contribute 1% of their turnover. The licences awarded are general telecommunications licences under which services and markets can be integrated. By the month chosen for market liberalization, November 2000, 20 new companies had obtained licences to operate basic (local and long-distance) telephony services. Of these, the most active are Impsat (an Argentine company), Techtel (alliance between Telmex and Techint) and Keytech (AT&T), all of which were already providing data transmission services to companies beforehand and which, now that the new regulatory framework allows them to diversify and introduce new services, are building infrastructure that will enable them to provide long-distance services in the larger cities and within Mercosur.

According to official estimates, telecommunications investment in 2000 totalled around US$ 4 billion, double the annual average for the sector over the previous five years. The Government expects the new entrants to invest between US$ 4 billion and US$ 5 billion in 2001 and 2002, on top of the investments made by the established firms.

After a decade characterized by exclusivity in basic telephony and limited competition in mobile telephony, the telecommunications sector in Argentina is entering a new phase in which there will be no legal impediments to the entry of new operators. The long period of exclusivity in basic telephony has chiefly benefited two companies: Telefónica of Argentina and Telecom of Argentina, which accrued large monopoly profits while making major investments that paved the way for substantial growth in the sector. The lack of competition not only kept prices relatively high, but also allowed these companies to establish a position of solid dominance in the sector by building up substantial first-mover advantages that have enabled them to construct high entry barriers. To improve conditions for new entrants at the current stage of liberalization, one of the priorities of the regulatory authorities should be to counteract the first-mover advantages built up by the two dominant operators.

Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by Martín Abeles, Karina Forcinito and Martín Schorr, "Las telecomunicaciones en Argentina. Regulación, poder de mercado y ganancias extraordinarias frente a la liberalización", Informe de coyuntura, year 9, No. 82, Buenos Aires, Buenos Aires Research Centre, September-October 1999; Daniel Azpiazu, "Las renegociaciones contractuales en los servicios públicos privatizados ¿Seguridad jurídica o preservación de rentas de privilegio?", Realidad económica, No. 164, Buenos Aires, 16 May to 30 June 1999; Marcelo Celani, "Determinantes de la inversión en telecomunicaciones en Argentina", Reformas económicas series, No. 9 (LC/L.1157), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), November 1998; Production Research Centre (CEP), "Infraestructura: una reseña de los años 90", Buenos Aires, Secretariat of Industry, Commerce and Mining, 1999; Andrés Chambouleyron, "Las telecomunicaciones en

Box IV.2 (concluded)

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Box IV.3
MEXICO: THE COST OF DEFENDING A NATIONAL CHAMPION

Teléfonos de México (Telmex) is the largest company of its kind in Mexico and one of the few genuinely national telecommunications operators remaining in the region. Telmex is also the only Latin American telecommunications company to appear on the list of the world's largest telephony operators by revenue (see table IV.3), where it figures among the top performers in the fixed-line and international telephony segments. It is also the largest company on the Mexican stock exchange. In 2000, Telmex sales were in excess of US$ 11.7 billion, a figure not exceeded by any other Mexican company with foreign stakeholders, including General Motors of Mexico and Daimler-Chrysler of Mexico. Telmex has changed ownership many times. It began trading in 1948 as a foreign-owned private company (a subsidiary of Ericsson), before becoming a Mexican-owned private company in 1958. The State took a minority shareholding in 1962, converting this into a majority holding in 1972. Telmex was privatized in 1990, becoming once again a private telephone company. When the Administration of President Salinas de Gortari announced the firm's privatization in 1989, reference was made to the need to improve services, extend coverage and guarantee the rights of Telmex workers. In order to facilitate the privatization arrangements, a substantial proportion of the company's outstanding external debt was converted into national public debt. Under the existing share distribution system, the Government owned the class-AA shares, which had 51% of the voting rights, while the remaining 49% were traded on the stock market. This system was replaced by one involving the creation of class-L shares, which had limited voting rights and represented 60% of the company's assets by value, even though control remained in the hands of class-AA shareholders. There were also class-A shares, representing 19.6% of the company's value. When Telmex was privatized in 1990, the two main objectives were very clear: to extend and modernize existing networks, and to consolidate a local company as the dominant telecommunications operator before the market was opened up to competition. In 1990, a consortium formed by the Mexican Carso group (10.4%), Southwestern Bell (5%) and a subsidiary of France Télécom (5%) paid US$ 1.757 billion for the class-AA shares that controlled Telmex voting rights. During the period 1990-1995, regulatory functions were exercised, on a discretionary basis, by the Secretariat of Communications and Transport. It awarded Telmex a long-term concession to operate basic telephony (up to 2026, with the possibility of a further 15-year extension), with a six-year exclusivity period for the provision of national long-distance and international services. Specific limits were also placed on foreign shareholdings in telephone companies (a maximum of 49% and a limit of 10% for any one investor). In return, the company undertook to meet certain binding targets for investment in modernizing and extending its national network. Telmex was awarded all long-distance services

Box IV.3 (continued)

until August 1996, while for mobile services it was granted nine licences that enabled it to operate in every one of the country's nine regions through a subsidiary, Telcel. Since Telcel operated in duopoly with different regional companies, it was the only operator capable of providing national coverage. During this initial period, prices were adjusted in line with inflation, without regard to productivity improvements.

In mid-1995, as the exclusivity period was drawing to an end, the new Telecommunications Development Programme was implemented. The aims of this programme were to develop and modernize the sector and to open it up gradually to competition. The sectoral objectives were to foster integration and technological modernization, to improve the quality and range of services, and to increase the number of users (through more accessible pricing and wider coverage). The liberalization programme's goals in this sector were to limit anticompetitive practices, chiefly by ending exclusive contracts, and to regulate use of the dominant operator's networks and interconnection fees. A new regulatory framework for telecommunications was created, as was a regulatory body, the Federal Commission of Telecommunications (Cofetel), whose immediate tasks were to implement asymmetrical regulation in the concentrated segments of the market and to begin the gradual process of opening up long-distance services (60 major cities in 1997, 100 in 1998 and 150 in 1999). In February 1998, as a result of the new commitments entered into by Mexico at WTO under the Fourth Protocol to GATS, Telmex came under pressure to offer new interconnection services, and foreign investors were allowed to acquire more than 49% of the assets of cellular telephony companies, subject to approval by the National Foreign Investment Commission. In the late 1990s, local telephony began to be opened up with the granting of concessions to new companies (Axtel, SPC, Amaritel) to operate in the segment, while in mobile telephony, measures such as the "caller pays" system were implemented and new licences were awarded with a view to encouraging more operators to enter this market. Thus, in 1998 four PCS concessions were auctioned in each of the nine regions. Although Telmex once again obtained a licence in each region, this time it was not alone in doing so: Pegaso, a partnership between a local group and the United States company Leap Wireless International, also obtained the licences it needed to provide national coverage.

The new regulatory policy of gradually opening up the sector began to attract new operators in the second half of the 1990s. Among those entering the long-distance segment were the Mexican Alfa and Bancomer groups, which formed Alestra in partnership with AT&T, and Banamex-Accival, which joined forces with MCI WorldCom to create Avantel. These new companies succeeded in reducing prices by 30% and capturing 25% of Telmex's market share. New investments totalling around US$ 5.6 billion were planned for international long-distance services in 1996-2001. Avantel, Alestra and Iusacell (a company operating in mobile telephony) invested in fibre optic cable, the better to compete with the dominant operator. Bell Atlantic went into partnership with the Iusacell group to provide cellular telephony services and subsequently, in 2001, Vodafone became a part-owner of Iusacell by purchasing the 34.5% share of that company held by the Peralta group. In 1998, Pegaso emerged as a strong competitor with national mobile telephony coverage, and in October 2000 Telefónica de España paid US$ 1.799 billion for Motorola's four cellular licences in the north of the country, thus becoming another heavyweight competitor.

When the experience of Mexico is evaluated, it can be said, firstly, that the goal of consolidating the position of a local company as the dominant operator in the market has been achieved: by 2000, Telmex still had very large market shares, despite the new entrants: 95% in local telephony, 66% in long distance, 72% in mobile and 60% in data/Internet. As regards the second important goal, that of extending existing networks, success has not been so great. Although Telmex, among other investments, put over US$ 18 billion into installing new lines and extending universal service during the 1990-1996 exclusivity period and up to 1999, thereby doubling telephone density (main lines per 100 inhabitants), this progress does not look so impressive when compared with what has been achieved in other countries of the region, particularly considering the high cost paid in terms of monopoly revenue for the dominant company. Mexico started off in 1990 with the same telephone density (6.5) as Chile and Brazil (which restructured its sector only in the late 1990s), but by 1999 it was lagging behind these countries in this respect, the figures being 11.2 in Mexico, 14.9 in Brazil and 18.6 in Chile (see table IV.2). Furthermore, if Mexico is compared with the members of the Organisation for Economic Co-operation and Development (OECD), the country's prices are high and the disparity between penetration levels is increasing. In terms of monopoly rents, Telmex has been able to make substantial profits thanks to advantages such as tax incentives and an exclusivity period that enabled the company to consolidate its network and diversify and integrate its activities. Thus, when competition came, it was able to charge high interconnection fees (compared with the OECD countries) and apply cross-subsidies (which enable it to

Box IV.3 (concluded)

cross-subsidies (which enable it to deal with competition in a more open segment by raising prices in less exposed ones, such as the local call segment).
The dominant position of Telmex, which is the result of deliberate policy choices by the Mexican authorities, is now perceived as a serious obstacle to the development of competition in the telecommunications market. The regulatory body set up in 1995, one of whose goals was to create the conditions for greater competition, has been heavily criticized. In general terms, the complaints are that its operations lack transparency, that it is too dependent on the executive and that it does not have the powers necessary to oversee and regulate Telmex. Thus, in December 1997, the new Federal Commission of Competition (CFC) warned that Telmex had a dominant position in five market segments (local telephony, interconnection service, national long distance, international long distance and resale of long-distance services), but Cofetel did not have the powers it needed to correct or alleviate this situation. In 1999, when Cofetel tried to apply restrictions to Telmex as the dominant operator, the company went to court and won. The dominant position of Telmex in Mexico has also had adverse effects on the company's international activities in the United States, on the one hand, while on the other it has caused serious international problems for the Government of Mexico. Thus, the US FCC fined one of the United States subsidiaries of Telmex US$ 100,000 because the parent company in Mexico would not allow two competing joint ventures, Alestra (AT&T) and Avantel (WorldCom), to connect to its network. Subsequently, Charlene Bershefsky, the former United States Trade Representative, lodged a complaint against the Government of Mexico at the WTO, alleging that it had failed to exercise regulatory control over Telmex practices deemed to be anticompetitive, such as refusing to re-sell long distance services and charging high interconnection fees that did not reflect its costs. In February 2001, the complaint was suspended -but not withdrawn- at the request of the United States, following the change of Administration in Mexico. In the telecommunications industry, Mexico has succeeded in creating and defending a national champion that has not only managed to extend and modernize the country's networks -although the results could have been better, as has been seen- but that has also transnationalized by branching out into the United States and other Latin American countries (Argentina, Brazil and Guatemala) (see: Telecom América plus BellSouth, below). The price the country has paid has been the maintenance of a monopolistic market in almost all telephony segments during the initial exclusivity stage, and a highly concentrated one in the following stage which has meant that tariffs have been higher there than in other countries. Now that the sector is being opened up, and Mexico is under pressure to act on the international commitments it made regarding competition in the telecommunications market, the challenge for Telmex is to find a way to continue growing in an environment that can be expected to become more and more competitive.

Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by Rebeca Escobar de Medécigo, "El cambio estructural de las telecomunicaciones y la inversión: el caso de México", Reformas económicas series, No. 17 (LC/L.1174), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), November 1999; United States Office of Telecommunications Technologies, "Mexico: telecommunications market", 2001 (http://infoserv2.ita.doc.gov); Organisation for Economic Co-operation and Development (OECD), "Regulatory reform in Mexico", OECD Reviews of Regulatory Reform, Paris, August 1999; Ahmed Galal and Bharat Nauriyal, "Regulating Telecommunications in Developing Countries: Outcomes, Incentives and Commitment", Policy Research Working Paper, No. 1520, Washington, D.C., Policy Research Department, World Bank, October 1995 (http://www.worldbank.org/html/dec/Publications/Workpapers/wps2136); Scott Wallsten, "An Empirical Analysis of Competition, Privatization, and Regulation in Telecommunications Markets in Africa and Latin America", Policy Research Working Paper, No. 2136,Washington, D.C., Policy Research Department, World Bank, June 1999 (http://www.worldbank.org/html/dec/Publications/Workpapers/wps2136); ECLAC, Foreign Investment in Latin America and the Caribbean, 1999 (LC/G.2061-P), Santiago, Chile, February 2000, United Nations publication, Sales No. E.00.II.G.4; and E. Melrose, "La telefonía móvil en América del Norte. El caso de México", 2000 (http://www.AHCIET.net/inalambricos/IIFATICMS.asp.).

Box IV.4

BRAZIL: THE BENEFITS OF LEARNING FROM OTHERS' MISTAKES

Telecommunications privatization took place later in Brazil than in other Latin American countries (except for Central America) and was preceded by a longer preparation and gestation period. In August 1995, the National Congress passed an amendment to the Federal Constitution making it permissible for private investors to be awarded licences to operate telecommunications services of any kind. In July of the next year, Act 9,295 authorized the use of private capital for the provision of a range of services, including cellular mobile telephony (in this case with majority Brazilian ownership), data transmission and value added. A year later, in July 1997, the General Telecommunications Act was passed, opening the way to restructuring and privatization of the Telebrás system and creating the National Agency of Telecommunications (Anatel). A year after this, in July 1998, privatization of Telebrás began.

Before privatization, the Telebrás system belonged to a holding company in which the Federal Government owned 51.79% of the voting shares (the rest being held by 6 million private shareholders) and 22% of the total equity. The system comprised 27 telephony operators (fixed-line and band "A" mobile telephony services), Empresa Brasileira de Telecomunicações (Embratel), which provided long-distance services, and four independent operators: one State and two municipal companies, and one private firm controlled by a local group, Algar.

In deciding how the telecommunications sector was to be organized, Brazil drew on the experience of other countries in the region, seeking to learn from their successes and mistakes. "Universalization of services and the immediate introduction of competition were stressed as key reform objectives, to which the objective of selling shareholder control in the State companies for the best possible price was to be subordinated" (Herrera, 1998a). It was believed that competition, rather than a temporary monopoly at the outset, offered the best prospects for achieving the objective of universal service provision and that competition was very difficult to introduce where there had once been a local network monopoly.

Between 1994 and 1997, prior to privatization in 1998, Telebrás invested close to US$ 20 billion (BNDES, 1997 and ITU, 2000c). Subsequently, but still prior to privatization, two important measures were taken: (i) Telebrás was broken up into 12 independent companies: a long-distance one (Embratel), three local fixed-line companies (Telesp, Tele Centro Sul and Tele Norte Leste) and eight band "A" cellular mobile telephony enterprises; and (ii) the whole radio spectrum was split into bands, and five different frequency bands were allocated to mobile telephony (from lowest to highest, A, B, C, D and E). Then, between 1997 and 1998, 10 band "B" cellular mobile telephony licences were auctioned off in accordance with Act 9,295 for 10 different geographical areas, and the operators obtaining them could therefore compete with the band "A" companies, which at that time were still part of the Telebrás system. The Government undertook not to award the highest frequency bands in the mobile telephony market before the end of 1999, and the first PCS licences in bands "C", "D" and "E" are only being awarded now, in early 2001.

To introduce competition in basic telephony, four licences were auctioned in 1999 so that four companies (known as "mirror" companies) could be created to compete with the four basic telephony operators privatized from the Telebrás system: a long-distance one and three local fixed-line firms. Until the end of 2001, no area can have more than one licensee and one mirror company providing basic telephony services (long distance and local), except in the case of intraregional services, where there may be up to four companies. From the end of 2001 there will be no restrictions on the number of licences for the provision of basic telephony services.

Lastly, it was decided that nine PCS mobile telephony licences would be auctioned off in three operations (bands "C", "D" and "E" at 1800-1900 MHz) between February and March 2001. The first auction (band "C") closed on 2 February without any buyers having come forward (this would appear to have been due in part to the fact that companies operating in fixed-line telephony could not participate), so there will be a further auction at a date to be determined. The second auction (band "D") was held on 13 February, with more success. At the third (band "E"), which took place on 13 March, just one buyer came forward for one of the three licences.

Throughout the process of reorganizing telecommunications in Brazil, one of the main concerns of the regulatory authorities has been to lay the foundations for a system in which, as far as possible, there is competition in every segment of the market. For example, the reason for breaking up Telebrás was to bring into being a number of telecommunications companies that had enough access infrastructure of their own and were on a sufficiently equal footing to compete with one another. To supplement this measure and prevent it from being neutralized by subsequent mergers and acquisitions, a number of rules were drawn up to restrict cross-ownership, expansion into new areas and diversification. "The General Telecommunications Act

Box IV.4 (continued)

specifically stated that antitrust-type legislation was fully applicable to the telecommunications sector, reaffirmed the powers of the body responsible for implementing it the Administrative Council for Economic Defence (CADE) and stipulated that, in this sector, Anatel was to exercise a range of legal functions supplementary to those of CADE, giving it wide powers to regulate and oversee the sector for the purpose of monitoring, preventing and remedying breaches of the regulations" (Herrera, 1998a).

In the Brazilian law, a great deal of care was taken to ensure that the regulatory body would be independent and its rulings transparent. Although linked to the Ministry of Communications, Anatel enjoys a special form of autonomy characterized by administrative independence, financial freedom and the absence of any hierarchical subordination. In addition, it has a fixed mandate and a stable corps of senior officials, who are appointed by the executive subject to ratification by the Senate. Furthermore, under the Brazilian law there has to be public consultation before any preceptive measure is taken by the regulatory agency; its officials have to explain why they voted as they did; meetings have to be held in public when issues involving conflict between parties are dealt with; and the minutes of meetings of the Agency's Executive Board have to be made available to the public. It also stipulates that a Consultative Council, containing representatives of different civil organizations, should operate within the Agency (Herrera, 1998b).

Asymmetrical regulations were implemented with a view to achieving universal service goals, while measures taken to prevent anticompetitive practices included requirements for operators to provide interconnection facilities on reasonable terms for all competitors, avoid cross-subsidization, remove obstacles to users wishing to switch operators (for example, by making numbers portable) and guarantee equality of access to different operators, among other things.

The State's stake in the 12 independent companies of Telebrás (51.79% of the voting capital, 22% of total equity) was sold in 1998 for US$ 18.944 billion (not including the debt transferred to the new owners, which totalled US$ 2.125 billion), which was 64% more than the reserve price. The sale of band "B" cellular telephony licences, carried out between 1997 and 1998, generated US$ 7.612 billion in revenue, 130% more than the reserve price. Lastly, the sale of licences for the “mirror" companies yielded US$ 99 million. Total revenue from privatization and the sale of licences was US$ 26.655 billion (without counting transferred debt). About 60% of this was foreign capital, most of it from Europe (around 70%) -chiefly Spain (31%) and Portugal (26%)- and the United States (23%), while the rest came from Canada, Japan and the Republic of Korea. The recent auction of three band "D" licences generated US$ 1.327 billion, an average of 20% more than the reserve price. Telecom Italia paid 57% of this total for two licences, one in São Paulo and the other in the south, while the remaining 43% was paid by Telemar, a locally-owned company, for one licence in the north. In the band "E" auction, of the three licences only one, for the northern region, found a buyer: Telecom Italia purchased it for 940 million reais (around US$ 470 million), bidding 5.32% more than the reserve price. A discount of 470 million reais will be applied to this value because the company will have to hand back licences in the states it is already operating in. At some stage a new date will be set for auctioning off the licences that found no buyers.

Segment/Area	Price (millions of dollars)	Winning bidders
1. Basic telephony	**12 077**	
Telecomunicaçoes de São Paulo (Telesp)	4 970	Telefónica de España / Portugal Telecom / Iberdrola / BBVA
Telesp (mirror)	41	Bell Canada / Qualcomm / Libermann / WLL Holding
Telemato	1 779	Telecom Italia
Telemato (mirror)	...	GVT
Telemar	2 951	Andrade Gutierrez
Telemar (mirror)	30	Bell Canada / WLL Holding
Embratel (long distance)	2 278	MCI WorldCom
Embratel (mirror)	28	National Grid / France Télécom / Sprint
2. Cellular mobile: band "A"	**6 980**	
Telesp Celular	3 084	Portugal Telecom
Telemig Celular	650	Telesystem Wireless
TeleSudeste Celular	1 169	Telefónica / Iberdrola / Itochu / NTT
Tele Celular Sul	602	Telecom Italia / Bradesco
Tele Centro Oeste Celular	378	Splice
Tele Nordeste Celular	567	Telecom Italia / Bradesco
Tele Norte Celular	162	Telesystem Wireless
TeleLeste Celular	368	Telefónica / Iberdrola

Box IV.4 (concluded)

Segment/Area	Price (millions of dollars)	Winning bidders
3. Cellular mobile: band "B"	**7 612**	
Area 1: City of São Paulo	2 453	BellSouth
Area 2: State of São Paulo	1 223	Telia / Erline / Lightel
Area 3: Rio de Janeiro	1 327	Lightel / Korea Telecom
Area 4: Minas Gerais	457	Telecom Italia
Area 5: Paraná, Santa Catarina	729	Motorola / Nissho Iwai / DDI
Area 6: Rio Grande do Sul	315	Bell Canada / Telesystem Wireless
Area 7: Goias, Matto Grosso, Rondônia	314	Bell Canada / Telesystem Wireless
Area 8: Roraima, Pará, Amazonas	50	Inepar / Splice
Area 9: Bahia	232	Telecom Italia
Area 10: Ceara, Pernambuco, Alagoas	512	BellSouth / Splice
4. Cellular mobile: band "C"		
No bidders	-	
5. Cellular mobile: band "D"	**1 326**	
State of São Paulo	500	Telecom Italia
North and North-East region	556	Telemar
Centre-South region	270	Telecom Italia
6. Cellular mobile: band "E"		
North region	470	Telecom Italia

The restructuring of telecommunications in Brazil led to very strong growth in telephone access: (i) in fixed-line telephony, the number of installed lines rose strongly and steadily from 1995 onward -by 10.5% in 1995, 12.5% in 1996, 14.1% in 1997, 17.6% in 1998, 25.5% in 1999 and 39.9% in 2000; (ii) in mobile telephony, growth was much faster: 87.6% in 1995, 93.8% in 1996, 65.8% in 1997, 61.9% in 1998, 104% in 1999 and 52.2% in 2000; (iii) the number of public telephones also grew considerably: by 7% in 1995, 16.8% in 1996, 21.5% in 1997, 13.25% in 1998 and 25.6% in 1999. In January 2001 there were 38.9 million installed fixed lines, of which 31.5 million were in service, and 23.6 million cellular mobile telephone users, of whom 60% used the prepayment system. Privatization of the Telebrás system and restructuring of the telecommunications industry attracted a great deal of investment, particularly FDI. Between 1998 and 1999, the telecommunications sector (including privatization of the Telebrás system and the licence auctions) took more than a third of all FDI inflows into the country. Between 1990 and August 2000, almost 47% by value of all mergers and acquisitions in the Latin American telecommunications industry took place in Brazil. In April 2000, Anatel produced a forward-looking study, "Perspectivas para Ampliação e Modernização do Setor de Telecomunicações (PASTE)", in which it forecast that a total of 112.2 billion reais, or about US$ 62 billion at April 2000 exchange rates, would be invested during the period 2000-2005. Of this total, 47% was expected to go into fixed-line telephony, 34% into cellular mobile telephony and 19% into mass communication services. The case of Brazil has clearly demonstrated that a developing country wishing to reform its telecommunications sector by attracting private capital can do so without necessarily having to grant monopoly advantages or give up the influence it can exercise, where it considers it to be necessary, over the way the market is structured through orderly reorganization and appropriate sectoral regulation.

Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information provided by the Hispano-American Association of Centres of Telecommunications Research and Enterprises (AHCIET), La regulación de telecomunicaciones en Iberoamérica, Madrid, Standing Commission on Regulation, 1999; National Agency of Telecommunications (ANATEL), "Brasil já tem 23,6 milhõnes de telefones móveis celulares e 38,9 milhõnes de fixos instalados", 22 February 2001 (http://www.anatel.gov.br), and "Perspectivas para ampliação e modernização do setor de telecomicações", April 2000 (http://www.anatel.gov.br); National Bank for Economic and Social Development (BNDES), "Privatização", 2001 (http://www.bndes.gov.br/pndnew), and "Telecomunicações", Cadernos de infra-estructura, Edição Especial, September 1997; ECLAC, Foreign Investment in Latin America and The Caribbean, 1999 (LC/G.2061-P), Santiago, Chile, February 2000. United Nations publication, Sales No. E.00.II.G.4, and Foreign Investment in Latin America and The Caribbean, 1998 (LC/G.2042-P), Santiago, Chile, December 1998. United Nations publication, Sales No. E.98.II.G.14; Alejandra Herrera, "Reforma del sector de telecomunicaciones en Brasil: asimetría regulatoria, competencia y universalización de los servicios", December 1998, unpublished, and "Competencia y universalización, ¿Qué hay de nuevo en la regulación?, los casos de Bolivia y Nicaragua", Caracas, Latin American Centre for Development Administration (CLAD), 1998; La Nación, "Brasil: exitosa licitación de telefonía celular", 14 February 2001; O Globo, 14 March 2001 (http://oglobo.globo.com/economia/eco98.htm); José Claudio Pires, "Estratégias empresariais e regulacão no setor de telcomunicacões brasileiro", ECLAC consultant's report, November 1999, unpublished; Thomson Financial Securities Data, 2000; United States Office of Telecommunications Technologies, "Argentina: telecommunications market", 2001 (http://infoserv2.ita.doc.gov).

Table IV.2
INDICATORS OF TELECOMMUNICATIONS SERVICE PERFORMANCE IN FOUR LATIN AMERICAN COUNTRIES, 1990-2000

	Country	1990	1995	1999
1. Main lines per 100 inhabitants	Argentina	9.3	15.9	20.1
	Brazil	6.5	8.5	14.9
	Chile	6.5	12.7	18.6
	Mexico	6.5	9.4	11.2
2. Residential lines per 100 inhabitants	Argentina	27.1	49.4	61.0[d]
	Brazil	17.8	22.4	28.6[d]
	Chile	22.4	45.3	66.2[d]
	Mexico	23.7	35.3	34.5[d]
3. Cellular telephone subscribers per 100 inhabitants	Argentina	0.04	0.98	12.12
	Brazil	0.02 [a]	0.83	8.95
	Chile	0.11	1.38	15.05
	Mexico	0.08	0.73	7.94
4. Faults per 100 main lines				
	Argentina	42.4 [b]	29.5	17.3[d]
	Brazil	4.7	3.2	3.8[d]
	Chile	97 b	57	52.0[d]
	Mexico		4.6	4.6[d]
5. Business line: monthly charge (dollars)	Argentina	43.2	29.7	36.4[d]
	Brazil		10.2	11.6[d]
	Chile		19.6	16.3[d]
	Mexico	12.1	13.7	19.3[d]
6. Cellular telephony: monthly charge (dollars)	Argentina	67.3	34	43.00[e]
	Brazil		29	14.81[e]
	Chile			28.01[e]
	Mexico	36	27	37.67[e]
7. Charge for residential connection (dollars)	Argentina	2155	500	150[d]
	Brazil		1215	43[d]
	Chile	258 [c]	82	159[d]
	Mexico	495	279	107[d]
8. Charge for business connection (dollars)	Argentina	5388	750	150[d]
	Brazil		1215	43[d]
	Chile	258 [c]	182	159[d]

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the International Telecommunication Union (ITU), Yearbook of Statistics: Telecommunications Services Chronological Time Series, 1989-1998, Geneva, February 2000, and Indicadores de telecomunicaciones de las Américas, Geneva, April 2000.

[a] 1992 figures. [b] 1991 figures. [c] 1993 figures. [d] 1998 figures. [e] 2000 figures.

monopolies had been privatized; and regulatory authorities were and still are subordinated to the executive. It was only once the exclusivity period had ended that the authorities concerned themselves with introducing greater competition into the different segments of the market by enacting new telecommunications laws. The exception is Brazil (see box IV.4), whose authorities learned from the mistakes of the countries that had carried out these reforms earlier. In Brazil, the national monopoly was broken up into a large number of independent operators in order to promote competition. Universalization of services and the immediate introduction of competition were laid down as the central objectives of the reform, to which the goal of obtaining the highest possible price from the sale of State assets was to be subordinated. The regulatory body, the National Agency of Telecommunications (Anatel), which was created prior to privatization, was made independent and given wide powers to regulate and supervise the sector (Herrera, 1998a).

Privatization of telecommunications in Latin America opened the way to a capital inflow into the

region totalling over US$ 40 billion for purchases of State assets and licences alone (ITU, 2000b). Serious weaknesses quickly came to light, however. These included the lack of real competition (State monopolies were replaced by private ones), the unambitious performance objectives set for the new operators, and falling investment in the fixed-line network. Thus, there were cases in which service prices remained high (Argentina), or heated controversy arose over the justification for the high price paid to support the dominant national operator (Mexico), or investment fell because of declining rates (Chile). Broadly speaking, the results of policies to strengthen competition in the Latin American telecommunications sector have been mixed.

By the end of the twentieth century, the great majority of the region's countries had privatized their dominant telecommunications operators and reached the stage of opening up the sector to competition, although there were significant differences between them as regards the routes taken and the results achieved. In long-distance telephony, for example, the pioneering country, Chile, introduced its multicarrier system with 19 operators in 1994, decontrolled rates in 1998 and reduced interconnection costs in 1999. It was thereby able to achieve greater competition and better pricing even though two operators —Telefónica CTC Chile, owned by Telefónica de España, and ENTEL, owned by Telecom Italia— still control two thirds of all traffic (see chapter II). In Mexico, six new entrants managed to take 25% of the long-distance market, despite the impediments and high interconnection costs imposed by Telmex (ECLAC, 2000a). In Brazil (1998) and Argentina (1999), the introduction of greater competition is more recent, so it is too early to evaluate the results. According to ITU, the most successful instances have been those that have combined greater competition with private-sector involvement and independent regulation (ITU, 2000b).

Where cellular mobile telephony is concerned, the experience of Latin America has been quite positive. Services began to be offered in the early 1990s in Argentina, Brazil, Chile and Mexico. Subscriber numbers rose strongly overall, and by 2000 they had reached quite high figures (15 million in Brazil, 7.6 million in Mexico, 4.4 million in Argentina and 2.3 million in Chile) (ITU, 2000b), making mobile telephony a real alternative to fixed-line service. Until the first PCS licences were awarded and the "caller pays" system was applied, this market segment was mainly controlled by the dominant national operator (Telebrás or Telmex) or the international companies that took control of these firms at privatization (Telefónica de España and Telecom Italia). Nonetheless, by late 1999 two thirds of the region's countries had a competitive cellular mobile market. A phase of regional consolidation in the cellular mobile telephony segment is now expected, following the auctioning of PCS licences in Brazil and the arrival in the region of new entrants with globalizing strategies (see section B of this chapter).

To sum up, it may be said that Latin America's experience with basic telephony in the 1990s has been mixed, and the privatization of the dominant national companies in this segment has not been without its problems. Where cellular mobile telephony is concerned, however, developments in the region have been quite positive, particularly since the introduction of PCS licensing. Efforts to strengthen competition in both segments have been most successful in cases where a telecommunications act has provided for an integrated regulatory system with the independence, professional capabilities and financial resources needed to carry out its work.

3. The transnationalization process

To understand the current dynamic of the telecommunications industry in Latin America and the world, a third factor that needs to be considered is the drive towards transnationalization among the main players. This process is largely a consequence of three interrelated factors: privatization of State enterprises, the rapid growth of private-sector companies, and the concentration of these companies through mergers and acquisitions. A first step towards grasping the situation is to identify "who's who" in some of the main segments of the telecommunications industry (see table IV.3):

- In basic telephony, there is a combination of European (5) and Asian (3) firms, most of which still have some degree of State participation, and United States firms (5), all of which are in the private sector.

Table IV.3
THE 15 LARGEST TELECOMMUNICATIONS COMPANIES, BY MARKET SEGMENT, 1999[a]
(Millions of dollars)[b]

Fixed-line operators[c]		International telephony operators[d]		Cellular mobile operators[e]	
NTT (Japan)[f]	54 511	AT&T (United States)	4 921	NTT DoCoMo (Japan)[f]	35 091
SBC (United States)	37 576	MCI WorldCom (United States)	3 489	DDI Group (Japan)[f]	8 574
Bell Atlantic (United States)[h]	24 086	Hong Kong Telecom (China)[f]	2 006	China Telecom (China)	7 956
China Telecom (China)	18 996	China Telecom (China)	1 704	AT&T (United States)	7 627
Deutsche Telekom (Germany)	17 791	Deutsche Telekom (Germany)	1 494	Telecom Italia-TIM (Italy)	7 484
BellSouth (United States)	17 772	KDD Japan (Japan)[f]	1 459	SBC (United States)k	5 851
Telecom Italia (Italy)	17 006	Telecom Italia (Italy)	1 359	Mannesmann (Germany)[i]	5 147
BT (United Kingdom)	15 377	France Télécom (France)	1 334	Vodafone (United Kingdom)[fij]	4 630
GTE (United States)[h]	15 101	Chungwa Telecom (Taiwan)[g]	1 303	Bell Atlantic Mobile (United States)[h]	4 564
France Télécom (France)	14 563	Telmex (Mexico)	1 207	AirTouch (United States)[fj]	4 028
US West (United States)	11 059	BT (United Kingdom)[f]	1 144	France Télécom (France)	3 989
Telefónica (Spain)	7 483	Swisscom (Switzerland)	875	Deutsche Telekom (Germany)	3 947
Telmex (Mexico)	6 410	Telefónica (Spain)	836	Telefónica (Spain)	3 754
Bell Canada (Canada)	6 259	Sprint (United States)	825	GTE (United States)[h]	3 745
Telestra (Australia)	5 458	KPN (Netherlands)	757	SK Telecom (Korea)	3 741
Total for 15 largest	274 022	Total for 15 largest	24 711	Total for 15 largest	113 230

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the International Telecommunication Union (ITU), PTO database, January 2001.

[a] The ITU information is organized by numbers of main telephone lines in the case of fixed-line telephony, total incoming and outgoing minutes in the case of international telephony and subscriber numbers in the case of cellular mobile telephony. The ECLAC Unit on Investment and Corporate Strategies rearranged the rankings of the 15 leading companies in each segment on the basis of ITU information on sales. Although it may be methodologically questionable, this ranking was considered to give a better overview of the relative importance of companies in each segment.

[b] Dollar values at the exchange rates notified by operators or end of period exchange rates.

[c] Only main local lines.

[d] Gross values notified by operators.

[e] Local wireless telephony revenue.

[f] For tax year beginning 1 April.

[g] For tax year beginning 30 June.

[h] Merged in 1999 to form Verizon.

[i] Vodafone bought Mannesmann in 2000.

[j] Vodafone acquired AirTouch in 1999. It then combined its United States operations with those of Bell Atlantic/GTE to form Verizon Wireless.

[k] In October 2000, SBC and BellSouth combined their United States mobile telephony operations into Cingular Wireless.

- In international long-distance communications, European (7) and Asian (4) telephone service operators predominate. Nonetheless, two United States firms, AT&T and WorldCom, head the list, accounting for around 34% of all the revenue received by the top 15 companies.
- In cellular mobile telephony, the situation is rather similar in terms of concentration, with European (6) and United States (5) operators outnumbering Asian ones (4). However, the three largest operators in this market segment, accounting for over 40% of all revenue, are Asian. Unlike the big Western companies, though, the Asian firms do not yet have substantial international systems. Furthermore, if companies that have merged since 1999 are considered, Vodafone (which includes AirTouch and Mannesmann) is in second place and Verizon (Bell Atlantic with GTE) in third.
- Only a relatively small number of firms are in all three segments. This is partly due to the traditional system of regulation in the United States, which until recently kept local and long-distance telephony separate. Of the five that do operate in all three segments, four are partially privatized European public-sector companies (Deutsche Telekom, France Télécom, Telecom Italia and Telefónica de España) in which the

Governments concerned retain some direct or indirect influence. The fourth is China Telecom.

- Although the main telecommunications companies are based in the industrialized countries, there are some national firms from emerging economies (Hong Kong Telecom, Chungwa Telecom and SK Telecom) and from large developing countries (China Telecom, Telmex) that figure in some segments, although they are not global players. The only Latin American operator to appear in any of the classifications of leading firms is the private-sector Mexican company Telmex, which is in the fixed-line and international long-distance segments.

The scale of the technological challenge now being faced, combined with a tendency towards greater competition, has led to the consolidation of the telecommunications industry. This has taken the form of a remarkable upsurge in mergers and acquisitions and in global strategic partnerships: between 1990 and August 2000, there were 188 mergers and acquisitions worth US$ 1 billion or more apiece in the sector, for a sum total of US$ 1.282 trillion (*Thomson Financial Securities Data*, 2000). In the same period, there were 23 mergers and acquisitions worth more than US$ 10 billion apiece, with a total value of US$ 794.6 billion (see table IV.4). This marked consolidation in the telecommunications industry has been a central factor in the growth of worldwide FDI flows, and it reflects the globalization process in all its strength.

The most clear-cut tendency has been for United States and European telecommunications companies to consolidate their operations in their own markets. In the United States, this process culminated with the negotiation and conclusion of major transactions such as the acquisition of Ameritech by SBC Communications Inc. for US$ 62.6 billion in October 1999; the purchase of US West by Qwest for US$ 56.3 billion in June 2000; the merger between GTE and Bell Atlantic (to form Verizon), valued at US$ 53.4 billion, in June 2000; and the acquisition of MCI Communications by WorldCom Inc. for US$ 41.9 billion in September 1998, to create MCI WorldCom (now WorldCom). In Europe, meanwhile, more rapid privatization and a succession of capital increases created the conditions for national telephone companies to consolidate (Deutsche Telekom, Telecom Italia, France Télécom and Telefónica de España). Major European transactions include the purchase of Telecom Italia by Olivetti for US$ 34.76 billion in May 1999, which produced a great deal of tension among the major telecommunications companies of France, Germany and Italy.

There has also been a wave of large mergers and acquisitions within Europe, mainly among companies from France, Germany, Italy and the United Kingdom. In early 2000, Vodafone AirTouch, a British firm, bought Mannesmann of Germany for a record sum (in excess of US$ 200 billion). As a result of this transaction, France Télécom acquired the British company Orange, a subsidiary of Mannesmann, for US$ 46 billion in August 2000; the German company had bought Orange for US$ 32.6 billion in January 2000 and Olivetti's telecommunications business for US$ 8.4 billion in June 1999. France Télécom also acquired part of the German company MobilCom for US$ 3.6 billion in March 2000, while Telecom Italia bought a shareholding in Telecom Austria for US$ 2.4 billion in December 1998. In the rest of the world, this process of consolidation among national telecommunications companies was less marked, although there were some noteworthy examples, such as the acquisition by China Telecom (Hong Kong SAR) of Fujian Mobile and Henan Mobile (China) for US$ 6.4 billion in December 1999 and of Jiansu Mobile for US$ 2.9 billion in June 1998.

The consolidation achieved by the leading actors in the main markets —North America and Europe— gave rise to such relatively new phenomena as the acquisition of United States firms by European ones (Vodafone of the United Kingdom bought AirTouch for US$ 60.3 billion in June 1999, and France Télécom acquired 71% of Global One for US$ 4.35 billion in April 2000); the purchase of European firms by United States companies (NTL bought CWC Consumer Co. of the United Kingdom for US$ 11 billion in May 2000, Ameritech paid US$ 3.2 billion for TeleDanmark in January 1998, CBS Cellular acquired Société Française du Radiotélé for US$ 2.6 billion in December 1994 and ADSB Telecom bought Belgacom for US$ 2.5 billion in 1996); and the formation of alliances between companies from the two continents (in January 2000, British Telecom and AT&T founded a new company, valued at US$ 5 billion, to sell mobile telephony services throughout the world). In this context, and given the initial resistance to this acquisition by the United States Congress, the importance of the attempt by Deutsche Telekom to acquire the United States giant VoiceStream for US$ 50.7 billion becomes clear. Taken together, these developments reveal the increasingly global character of the corporate strategies applied in the telecommunications industry.

Lastly, it is interesting to note the quickening of the international expansion process pursued by the Japanese company NTT DoCoMo, one of the first Asian firms to participate actively in this frenetic effort to achieve global consolidation through mergers and acquisitions. In mid-2000 it made acquisitions in Europe, buying 15%

Table IV.4
TELECOMMUNICATIONS: THE LARGEST MERGERS AND ACQUISITIONS, 1990-2000
(Percentages and billions of dollars)

Date effective	Company acquired (country)	Purchaser (country)	Percentage acquired	Value
Pending	Mannesmann AG (Germany)	Vodafone AirTouch PLC (Reino Unido)		202.8
10/1999	Ameritech Corp. (United States)	SBC Communications Inc. (United States)	100.00	62.6
06/1999	AirTouch Com. (United States)	Vodafone Group PLC (United Kingdom)	100.00	60.3
06/2000	US WEST Inc. (United States)	Qwest Com. Int. Inc. (United States)	100.00	56.3
06/2000	GTE Corp. (United States)	Bell Atlantic Corp. (United States)	100.00	53.4
pendiente	Voicestream (United States)	Deutsche Telekom (Germany	...	50.7
08/2000	Orange PLC (Mannesmann) (United Kingdom)	Francia Telecom S.A. (France)	100.00	46.0
09/1998	MCI Com. Corp. (United States)	WorldCom Inc. (United States)	100.00	41.9
08/2000	Cable & Wireless HKT (Hong Kong)	Pacific Century CyberWorks Ltd (Hong Kong)	100.00	37.4
05/1999	Telecom Italia SpA (Italy)	Olivetti SpA (Italy)	52.12	34.8
01/2000	Orange PLC (United Kingdom)	Mannesmann AG (Germany)	100.00	32.6
08/1997	NYNEX Corp. (United States)	Bell Atlantic Corp (United States)	100.00	21.3
04/1997	Pacific Telesis Group (United States)	SBC Com. Inc. (United States)	100.00	16.5
09/1994	McCaw Cellular Com (United States)	AT&T (United States)	89.45	15.7
11/1999	Nippon Telegraph & Telephone (Japan)	Investors (unknown)	5.98	15.1
04/2000	Vodafone AirTouch (United States)	Bell Atlantic-Wireless Ops (United States)	100.00	15.0
10/1999	One 2 One (United Kingdom)	Deutsche Telekom AG (Germany)	100.00	13.6
12/1996	MFS Comm Co. Inc. (United States)	WorldCom Inc.(United States)	100.00	13.6
11/1996	Deutsche Telekom AG (Germany)	Investors (Germany)	49.90	13.5
07/1998	Teleport Com.Group (United States)	AT & T Corp. (United States)	100.00	11.2
05/2000	CWC Consumer Co. (United Kingdom)	NTL Inc.(United States)	100.00	11.0
07/2000	Telesp (Brazil)	Telefónica (Spain)	62.7	10.4
09/1999	Frontier Comp. (United States)	Global Crossing (Bermuda)	33.33	10.1
11/1997	Telestra (Australia)	Inversionistas (Australia)		10.1

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from *Thomson Financial Securities Data*.

of the Dutch firm KPN Mobile for US$ 3.6 billion and 20% of the British 3G company Hutchison UK Holding for US$ 1.8 billion. Hutchison, in particular, has a number of 3G licences in Europe (see table IV.1). In November 2000, DoCoMo bought 16% of AT&T Wireless for around US$ 10 billion, which enabled it to position itself in the United States market as well. The strategy of DoCoMo is particularly interesting in view of the leading role the company appears to be taking on, through its i-mode application, in setting standards for 3G telephony (see the section on DoCoMo in chapter III).

Many telecommunications companies have used international alliances to enhance their ability to provide global or continent-wide services. Unisource, Concert and Global One are examples of this. The first of these alliances was created in 1992 by a number of small European operators that were then being privatized —KPN Telcom, Telia and Swiss Telecom, among others— with a view to increasing their influence at the continental level. Unisource also had a stake in WorldPartners (with AT&T, KDD-Japan, Singapore Telecom and Testra). In 1997, Telecom Italia joined this grouping and Telefónica de España withdrew. Concert was created in 1993 by British Telecom and MCI. The failure of the proposed merger between British Telecom and MCI, followed by the purchase of MCI by WorldCom and the forging of a partnership between British Telecom and AT&T, led to Concert being operated by British Telecom and AT&T. Global One was set up by Deutsche Telekom, France Télécom and Sprint of the United States. The failure of Deutsche Telekom to notify its partner, France Télécom, of its interest in acquiring Telecom Italia, and the proposed merger between Sprint and MCI WorldCom, created an atmosphere of growing mistrust among the participating companies. Thus, while strategic alliances are an important mechanism for expanding the global capabilities of their members, shifting loyalties, mistrust and new links with non-members through merger or acquisition have limited their effectiveness as such.

Table IV.5
LATIN AMERICA: THE LEADING TELECOMMUNICATIONS COMPANIES, BY MARKET SEGMENT, 1999
(Millions of dollars)

Basic telephony operators		International telephony operators		Cellular mobile telephony operators	
TELMEX (Mexico)	6 410	TELMEX (Mexico)	949	TELMEX (Mexico)	1 364
Tele Norte Leste, Telemar (Brazil)	4 659	MCI EMBRATEL (Brazil) *MCI WorldCom*	534	Telesp Celular (Brazil) *Portugal Telecom*	1 236
Telesp (Brazil) *Telefónica*	2 559	Telintar (Argentina) *Telefónica*	484	Telcel (Venezuela) *BellSouth*	1 051
Telefónica Argentina (Argentina) *Telefónica*	2 526	Telecom Colombia (Colombia)	420	Tele Sudeste Celular (Brazil) *Telefónica*	833
Telecom (Argentina) France *Télécom - Telecom Italia*	2 310	CANTV (Venezuela) Verizon	340	Movicom (Argentina) *BellSouth*	830
CANTV (Venezuela) *Verizon*	2 099	Telefónica del Perú (Peru) *Telefónica*	187	BCP (Brazil) *BellSouth*	694
Tele Centro Sul (Brasil) Telecom Italia	1 690	Telefónica CTC Chile (Chile) *Telefónica*	123	CANTV (Venezuela) *Verizon*	670
Telefónica CTC Chile (Chile) *Telefónica*	972	ANTEL (Uruguay)	118	Iusacell (Mexico) *Verizon*	440
Telefónica del Perú (Perú) *Telefónica*	882	Entel (Chile) *Telecom Italia*	74	TIM Celular (Brazil) *Telecom Italia*	380
CRT (Brazil) *Telecom Italia*	635	CODETEL (Dominican Republic) *Verizon*	…	Celular CRT (Brazil) *Telefónica*	328
Total 10 leading companies	**24 742**	**Total 10 leading companies**	**3 229**	**Total 10 leading companies**	**7 826**

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from the International Telecommunication Union (ITU), Indicadores de telecomunicaciones de las Américas, Geneva, April 2000.

In Latin America, the corporate map of the telecommunications sector has some features that are worth noting, in particular a number of tendencies that are beginning to emerge in the different segments of the industry (see table IV.5). First, privatization has meant that State companies have all but disappeared from the sector, the exceptions being Telecom Colombia and the Uruguayan national telecommunications operator, the Administración Nacional de Telecomunicaciones (Antel). In fact, where fixed-line telephony is concerned, all of today's operators have their origin, directly or indirectly, in public assets transferred in this way (this is true of only seven operators in the long-distance segment and five in the cellular mobile telephony segment) (see table IV.5). Second, up until 1999 the bulk of the sector's revenue continued to come from fixed-line telephony (US$ 24.742 billion, as compared with US$ 3.229 billion from international long distance and US$ 7.826 billion from cellular mobile telephony). Third, because of its privileged position in the Mexican market (see box IV.3), the leading company in all segments is Telmex, which is controlled by the private group Carso, although a minority stake is held by the United States firm SBC Communications. Fourth, Telefónica de España has the best regional coverage and holds a position of leadership in all segments and in most Latin American countries, particularly in fixed-line telephony. Fifth, the only other company with a major presence in all segments and in a significant number of countries is Telecom Italia, largely owing to the active expansion strategy it has pursued in Brazil since 1996. Sixth, the United States company Verizon (the result of a merger between Bell Atlantic and

GTE), although it too has a presence in all segments, operates almost exclusively in one country, Venezuela, through the Compañía Anónima Nacional de Teléfonos de Venezuela (CANTV). Seventh, the United States company BellSouth has become one of the region's main wireless telephony operators, disputing leadership in this segment with Telmex, Telefónica de España, Telecom Italia and Verizon. Eighth, and perhaps most importantly, a substantial number of Latin America's leading telecommunications companies are subsidiaries of transnational corporations that do not actually hold positions of leadership in the industry at the world level. This suggests that profound changes would occur in the region's telecommunications industry were the leading global firms to make an appearance.

What all this shows is that the structure of the telecommunications industry in Latin America has been strongly influenced by changes of ownership. By international standards, however, these operations are very minor (see table IV.4). The only one to have come close to the enormous transactions seen recently in the global telecommunications industry was Operation Verónica, carried out by Telefónica de España in Argentina, Brazil and Peru, which involved sums totalling US$ 19.778 billion (see table IV.6). In fact, one of the transactions involved in this operation, in Brazil,

Table IV.6
LATIN AMERICA: LARGEST MERGERS AND ACQUISITIONS IN THE TELECOMMUNICATIONS SECTOR, 1990-2000
(Percentages and millions of dollars)

Date effective	Company acquired (country)	Purchaser (country)	Percentage acquired	Value
07/2000	Telesp (Brazil)	Telefónica (Spain)[a]	62.7	10 423
07/1998	Telesp (Brazil)	Telefónica (Spain) / Portugal Telecom/ Iberdrola (Spain)[b]	19.3	4 973
07/2000	Telefónica of Argentina	Telefónica (Spain)[a]	44.2	3 718
07/2000	Telefónica del Peru (ex ENTEL Perú)	Telefónica (Spain)[a]	56.7	3 218
07/1998	Telesp Celular	Portugal Telecom[b]	19.3	3 084
11/1990	Telefónica of Argentina	Telefónica (Spain)	60.0	3 016
07/1998	Tele Norte Leste (TELEMAR) (Brazil)	Grupo Andrade Gutierrez (Brazil)[b]	19.3	2 950
11/1990	Telecom Argentina	France Télécom / Telecom Italia	60.0	2 578
08/1997	Licencia banda B para São Paulo	BellSouth (United States)/Grupo Safra (Brazil)	100.0	2 453
07/2000	Tele Sudeste Celular S.A. (Brazil)	Telefónica (Spain)[a]	73.4	2 419
07/1998	Embratel (Brazil)	World Com (United States)[b]	19.3	2 278
05/1994	ENTEL Perú	Telefónica (Spain)	35.0	2 002
12/1991	Cía. Anónima Nacional de Teléfonos de Venezuela (CANTV)	Verizon (United States)	40.0	1 885
07/1998	Tele Centro Sul (TELEMATO) (Brazil)	Telecom Italia[b]	19.3	1 781
12/1990	Teléfonos de México (TELMEX)	Grupo Carso (México)/SBC (United States)/ France Télécom	20.4	1 684

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Thomson Financial Securities Data, electronic version, 2000.

[a] Part of Operation Verónica carried out by Telefónica de España in the first half of 2000.

[b] Operations carried out as part of the Telebrás privatization process.

ranks twenty-first in the list of the world's largest mergers and acquisitions in the sector (see table IV.4). Meanwhile, privatization of the Telebrás system in mid-1998 enabled private investors to enter the region's largest market. Thus, some European companies (Telefónica and Telecom Italia) consolidated their regional position, and companies that were beginning to shape a global strategy found themselves obliged to include Latin America in their plans.

Thus, rapid technological change, the transnationalization of telecommunications companies and the application of sectoral deregulation and liberalization policies to increase competition are all factors in the globalization process that the industry is going through in Latin America and the world, and they all need to be considered if this process is to be better understood. The benefits it has produced so far include large FDI flows, better service quality and coverage, lower prices and improvements in the systemic competitiveness of the recipient economies and in the extent and quality of their integration into the international economy. The negative consequences include increased risk (reflected in the financial instability of stock markets), systemic weakness in financial systems and often unpredictable or irrational behaviour by operators, governments and regulators owing to the speed and uncertainty of the process. All actors have an interest in strengthening the positive effects of this globalization process and avoiding its negative ones as far as possible. If this is to be achieved, the strategies of the main economic agents involved in the telecommunications industry need to be taken into account.

B. TRANSNATIONAL TELECOMMUNICATIONS COMPANIES IN LATIN AMERICA AND THE CARIBBEAN

1. The first wave: European State companies

This paper will now describe the business strategies of those international companies that have a long track record in the region and are firmly established in Latin American telecommunications markets. The great majority of them are European companies (Telefónica de España, Telecom Italia and France Télécom) which, in the South American countries, have focused their efforts on fixed-line telephony, a segment they have long dominated. All these companies began their regional operations in the context of the privatization programmes of the early 1990s. In the second part of the decade, they strengthened their positions and moved into new telecommunications segments.

(a) Telefónica de España: from Latin America to global operator?

This former State monopoly has become one of the leading operators in the competitive European market. Telefónica was fully privatized in February 1997, although the Spanish State retained a golden share giving it a veto over the strategic decisions of the group. By late 1999, Telefónica was one of the world's 12 largest telecommunications companies and ranked sixth in Europe, as well as being the main provider of services to the world's Spanish-speaking population and, recently, its Portuguese-speaking population too. Table IV.3 places it twelfth in the fixed-line segment and thirteenth in both international long-distance and cellular mobile telephony. Between 1996 and 1999, the company achieved spectacular growth through an active acquisition strategy, as a result of which its revenue has almost doubled and its stock market value has increased more than fivefold[83] (Telefónica, 2000). Although it has attempted a number of alliances, however, Telefónica is still without a firm international partner, and this is a difficulty for the company at a time when concentration in the world telecommunications market is increasing. In

83 In early 2000, the then Chairman of Telefónica, Juan Villalonga, said: "We want to be one of the world's top five companies by stock market capitalization" (*The Wall Street Journal Americas*, 8 May 2000). Although the goal is a long way from being achieved, this declaration reveals the thinking that has guided executives of the Spanish firm, particularly its former Chairman.

fact, it is still a potential target for hostile takeover by another international operator with global ambitions.

When liberalization of the sector in Spain and the European Union was imminent, Telefónica, unlike other large international operators, chose to focus its expansion strategy on Latin America, where it has become the largest foreign company as measured by 1999 consolidated sales (see table I.11). The firm was seeking to improve its competitive position by achieving critical mass on an international scale. From its point of view, the opportunities that were beginning to emerge in the region offered the ideal way of confronting the challenges of globalization. On the one hand, this was a market with high growth potential (unmet demand and inadequate infrastructure investment), while on the other, there was the prospect of achieving operating synergies by setting up common systems and strengthening the company's negotiating capacity (Calderón, 1999). This strategy has enabled Telefónica to grow in other markets whilst remaining supreme in its own. By mid-2000, two years after the sector was liberalized in Spain, Telefónica had seen its market share fall by just 5% in its home country, while Latin America's contribution to total group revenues had risen to about 50%.

In a very short space of time, Telefónica has transformed itself from a telephony operator into a communications firm, and from a public utility into a supplier of differentiated services to a wide range of customers. In late 1998, it was decided that the company needed to change its image, and as a result the single brand name "Telefónica" was adopted to help integrate and consolidate the firm's international activities. In early 1999, Telefónica de España began to implement a business segmentation strategy, supplemented by a policy of selling off non-strategic assets. Thus, on 1 January 1999, Telefónica de España became a separate company operating fixed-line telephony in Spain and acting as overall group head. Over the following months, separate stock market listings began to be obtained for Terra Networks (Internet), Telefónica Media (content and media), TPI-Páginas Amarillas and Atento (call centres) and the undersea cable company Emergia. The subsequent addition of Telefónica Móviles and Telefónica DataCorp. supplemented the group's main lines of business, in which traditional fixed-line telephony accounts for a shrinking share.

By late 1999, Telefónica's strong expansion in Latin America stood in sharp contrast to its virtual absence from Europe, outside Spain. The company chose to remedy this, at the same time as it broke down its vertically integrated structure into separate business units, by announcing new capital increases to finance a more global growth strategy in which it would consolidate its presence in Latin America while taking positions in the European market.[84] To achieve this, Telefónica's stock was used as currency (*Cinco Días*, 8 July 2000). Considering that the wireless revolution in Europe could be more important for the future of the Internet than fixed-line broadband access, the main international operators began to work on the assumption that cellular telephones and other wireless devices might become the main Internet access tools. This approach was reflected by the great success of the European auctions for new 3G (UMTS) licences held in 2000. In the meantime, fixed-line broadband provides an alternative for international operators looking to create a strong position for themselves in European convergence markets in the short and medium term; by some stage in 2001, half of all households in Germany, Italy, Spain and the United Kingdom should have access to broadband. In view of this, Telefónica is implementing a combined strategy to capitalize on the business opportunities being opened up by the convergence of mobile telephony and the Internet, as the following facts demonstrate:

- The strategic importance given to the 3G mobile telephony licence auctions when these began to be held throughout Europe (see table IV.1). In March 2000, Telefónica obtained a licence in Spain free of charge. In the United Kingdom, it considered buying the mobile operator Orange, which already had a 3G licence, although nothing ultimately came of this. In August 2000, acting in partnership with the Finnish company Sonera Oy, Telefónica paid US$ 7.69 billion for one of the six UMTS licences in Germany. This sum only covers market access, so the consortium will have to invest a further US$ 3.6 billion or so to build its network, which should come into operation in 2002 (Telefónica de España, 2000a). Further licences were subsequently obtained in Italy and Austria. However, waning faith in the future of the UMTS system, which was reflected in the poor results of the auctions held in Austria, Italy and Switzerland, led Telefónica to pull

84 In early 2000, Telefónica tried to merge with the Dutch company Royal KPN, an operation valued at US$ 60 billion. The attempt ultimately had to be abandoned in view of the reservations of the Spanish Government and Telefónica's core shareholders, Banco Bilbao Vizcaya Argentaria (BBVA) and the savings bank La Caixa. Had it gone ahead, the merger would have created Europe's fourth-largest telephone operator, with a market value of over US$ 100 billion, and its third-largest wireless services provider, after Vodafone AirTouch and Telecom Italia Mobile (TIM). As an Internet access provider for corporate customers, it would have been second only to WorldCom.

out of the Belgian and French auctions held in early 2001.

- Since its creation, Terra Networks, Telefónica's Internet business unit, has pursued an aggressive acquisition strategy with the aim of achieving a leading position as an on-line portal, provider and search engine in Spanish-speaking markets. In early 2000, it invested over US$ 80 million in an intensive advertising campaign to conquer the Spanish-speaking market of the United States. Subsequently, in May 2000, Terra announced the acquisition of Lycos, the fourth-largest portal in the United States, which also has a strong presence in Europe (France, Germany and the United Kingdom). The operation, valued at US$ 12.5 billion, was carried out by means of a share swap. It marked a milestone in the industry as the largest tie-up to date between a telecommunications operator and an Internet portal, producing the world's third-largest Internet firm. The final agreement awaits ratification by Lycos shareholders and the authorities of the United States and EU.
- In March 2000, Telefónica announced the acquisition of one of Europe's largest television producers, Endemol of the Netherlands, best known as the creator of *Big Brother*, the rights to which have been sold to a number of European broadcasters and to CBS in the United States. This operation, valued at some US$ 4.48 billion, was carried out by means of a share swap. The idea is for Endemol, among its other international activities, to become one of the main content providers (television and Internet productions) for the distribution platforms of all the Telefónica companies (Telefónica Media, Terra Networks and Terra Mobile) and for the group's 3G mobile telephony arm, Telefónica Móviles, as well as for other platforms such as call centres and future broadband initiatives.

By late 1999, having invested over US$ 11 billion in Argentina, Brazil, Chile, El Salvador, Guatemala, Peru, Puerto Rico and Venezuela, Telefónica had become the leading global operator in the Latin American telecommunications market, particularly the fixed-line telephony segment (ECLAC, 2000a). This position was firmly consolidated by the company's successful participation in the Telebrás privatization process, when it took control of the fixed-line telephony operator of the state of São Paulo (Telesp) and of two cellular telephony operators (TeleSudeste Celular and TeleLeste Celular) (see table IV.7). By early 2000, Telefónica operated more telephone lines and had more mobile telephony customers in Latin America than in Spain (Telefónica de España, 2000a, pp. 19 and 29). The result is that a third of all telephone calls in Latin America are made over a line belonging to one of the companies controlled by Telefónica (*Gazeta Mercantil Latino-Americana*, 31 January to 6 February 2000).

By and large, corporate control has been a higher priority in Telefónica's investment decisions than price. A review of the sums the Spanish company has spent on acquiring Latin American assets leaves no doubt as to the strategic value it sets on the region (Calderón, 1999). In one early case, that of Peru, its bid was twice as high as those submitted by other consortia, while in the more recent case of Brazil, the sum Telefónica offered for Telesp was 64% higher than the reserve price and over US$ 1.56 billion more than the second-highest bid. Furthermore, despite having secured a solid majority in the companies it invested in at privatization in Argentina, Brazil, Chile and Peru, Telefónica has continued to increase its equity holdings in these affiliates, first by buying shares on the open market and then by launching a number of takeover bids.

Telefónica firmly entrenched its regional position in July 2000, when it launched successful offers for all the equity in its Argentine, Brazilian and Peruvian affiliates that it did not already own. In this process, termed "Operation Verónica", it offered a premium of 40% over the average share prices of these Latin American affiliates for the five days preceding the acquisition proposal at the beginning of the year. It thus took control of 96% of Telefónica of Argentina, 87.5% of Telesp, 89.3% of TeleSudeste Celular and 95.5% of Telefónica of Peru. The total cost of the operation, which took the form of a share swap, was US$ 19.778 billion. It was the largest capital market operation every carried out in Latin America and it made Telefónica the region's largest investor, with assets of some US$ 35 billion (Telefónica de España, 2000b).

Taking control of these Latin American affiliates was vital to Telefónica's strategy of operating by global business lines. The Spanish group will now be able to integrate the wireless telephony units of these companies into a new firm, Telefónica Móviles, whose stock market launch was scheduled for late 2000 (*Cinco Días*, 8 July 2000). At the same time, the new capital increases mean that Telefónica will become Europe's fourth-largest telecommunications company by stock market value, behind the British mobile telephony company Vodafone AirTouch and the former monopolies of the two main European countries, Deutsche Telekom and France Télécom.

In October 2000, Telefónica signed an agreement that will enable it to complete its regional wireless network and establish itself firmly as Latin America's leading telecommunications operator. It acquired four mobile telephony companies, operating in northern

Table IV.7
TELEFÓNICA DE ESPAÑA: MAIN OPERATIONS IN LATIN AMERICA, 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands)
Argentina	1991	Telefónica of Argentina (TASA)	96.0	Local, long-distance and mobile telephony, data and Internet.	1 757 M 4 327 F
Brazil	1998	Telecomunicacões de São Paulo (Telesp)	87.5	Fixed-line local telephony	10 596 F
	1998	TeleSudeste Celular	89.3	Mobile telephony	2 503 M
	1998	TeleLeste Celular	22.3	Mobile telephony	675 M
	1996	Celular CRT	55.8	Mobile telephony	1 452 M
Chile	1990	Telefónica CTC Chile	43.6	Local, long-distance and mobile telephony, data and Internet	1 225 M 2 701 F
El Salvador	1998	Telefónica of El Salvador	18.2	Local, long-distance and mobile telephony, data and Internet	230 M 18 F
Guatemala	1999	Londrina	51.0		142 M
Mexico	2000	Bajacel	100.0	Mobile telephony	[a]
	2000	Norcel	100.0	Mobile telephony	[a]
	2000	Cedetel	100.0	Mobile telephony	[a]
	2000	Movitel	90.0	Mobile telephony	[a]
Peru	1994	Telefónica of Peru	96.7	Local, long-distance and mobile telephony, data and Internet	898 M 1 717 F
Puerto Rico	1992	Puerto Rico Telefónica Larga Distancia (TLD)	79	Long-distance and mobile telephony	48 F
Venezuela	1991	Compañía Anónima Nacional Teléfonos de Venezuela (CANTV)	6.4	Local, long-distance and mobile telephony, data and Internet	1 706 M 2 606 F

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Telefónica de España (http://www.telefonica.es).

[a] Acquisition not yet complete.

M: Mobile; F: Fixed-line.

Mexico, in which the United States firm Motorola held equity stakes. The price paid for 100% of Bajatel, Norcel and Cedetel and 90% of Movitel was US$ 1.799 billion (Telefónica de España, 2000d). The agreement also gives Telefónica the option of buying Motorola's holding in Portatel (21.7%), which operates in the south of the country, and it could be extended to cover Motorola's mobile assets in Brazil, the Dominican Republic, Honduras and Israel. If these other transactions came to fruition, the total cost would be US$ 2.645 billion, and Telefónica would become one of the world's five largest mobile telephony operators.[85]

Although Telefónica is an active member of the GSM Association, its large digital footprint in Latin America includes operations based both on TDMA technology (Chile, Unifon in Argentina and CRT in Brazil) and on CDMA technology (TeleSudeste Celular in Brazil, MoviStar in El Salvador and Guatemala, TLD in Puerto Rico, Telefónica of Peru and the new Mexican licences purchased from Motorola). At some stage, it would seem, Telefónica will have to undertake the complex task of harmonizing the technologies used by its Latin American affiliates.

At the turn of the twenty-first century, Telefónica had 21 million fixed telephone lines and 10.5 million cellular telephony customers in Latin America (Telefónica, 2000). Over the coming years, it plans to carry on investing substantially in the region in order to extend and consolidate its lead, particularly in international long-distance telephony, cellular mobile telephony, cable television and Internet services. Accordingly, some 50% of the investment planned for 2000 was intended for the cellular market and some 30% for Internet and data transmission services (Vega, 1999).

In January 2001, Telefónica and Portugal Telecom agreed to integrate their Brazilian mobile telephony

85 The agreement with Telefónica gives Motorola, the world's second-largest cellular telephone manufacturer, the opportunity to divest itself of assets it acquired years ago as part of its strategy to hasten progress in underdeveloped mobile telephony markets, while at the same time creating a market for its mobile devices. In June 2000, Motorola announced that it would spin off its wireless telephony assets into a new company, Propel.

Table IV.8
TELEFÓNICA DE ESPAÑA AND PORTUGAL TELECOM: BRAZILIAN ASSETS OF THE NEW MOBILE TELEPHONY COMPANY

Brazilian affiliate	Company owning stake	Holding (percentage)	States operated in	Customers (thousands)
TeleSudeste Celular	Telefónica	89.3	Rio de Janeiro and Espírito Santo	2 503 M
TeleLeste Celular	Telefónica / Iberdrolaa	22.3	Bahía and Sergipe	675 M
Celular CRT	Telefónica	55.8	Rio Grande do Sul	1 452 M
Telesp Celular	Portugal Telecom	45.2	São Paulo	4 200 M
Global Telecom	Portugal Telecomb	...	Paraná and Santa Catarina	463 M

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management.

[a] Inclusion of TeleLeste is subject to agreement with the electricity company Iberdrola, which is the main shareholder.

[b] In January 2001, Telesp Celular announced that it was buying 49% of the ordinary shares and 100% of the preference shares held by DDI Corporation, ITX Corporation and Inepar, which own a majority interest in Global Telecom.

M: Mobile

subsidiaries into a joint venture. The new company, valued at US$ 10 billion, would have more than 9.3 million customers in seven Brazilian states, accounting for 42% of the country's mobile telephony market[86] (see table IV.8). Furthermore, this joint venture would be Latin America's second-largest cellular mobile telephony operator in terms of customer numbers. With the exception of Celular CRT, all these companies use CDMA technology. The agreement, which is subject to approval by Brazilian regulators and ratification by the general meeting of Portugal Telecom scheduled for 23 April 2001, would also involve Telefónica increasing its stake in Portugal Telecom from 4.15% to 10%, while the latter would raise its holding in the Spanish firm from 1% to 1.5%. This would reinforce Telefónica's position as the largest shareholder in Portugal Telecom, although the Portuguese State retains a share that gives it special rights and the power to veto strategic decisions.

This operation has given rise to a range of theories about the future of the Spanish operator. It might be indicative of a new rapprochement with British Telecom (BT), which has been the most important shareholder in Portugal Telecom from Telefónica's point of view since the signing of the three-way agreement between BT/MCI, Telefónica and Portugal Telecom in 1997. Again, the new joint venture between Telefónica and Portugal Telecom could be an important step towards the consolidation of a major telecommunications group in the Iberian Peninsula. Lastly, it could be interpreted as a defensive reaction to increased competition and the awarding of new mobile telephony licences in Latin America's largest market.

Since it began a decade ago, Telefónica's Latin American expansion strategy has been quite successful. From the group's point of view, the benefits include substantial improvements in its position and relative weight in the international market and a significant rise in its stock market value. Telefónica is now the leading Spanish company in terms of profits, assets, stock market capitalization and staff. The countries in which the firm has invested have also benefited from large improvements in the coverage, quality and price of telecommunications services. The process has not, however, been trouble-free:

- In Argentina, Telefónica and its United States partner CEI Citicorp (controlled by the United States investment fund Hicks, Muse, Tate & Furst) experienced problems when they jointly ran Cablevisión, a cable television firm. In January 2000, CEI Citicorp finally brought months of difficult negotiations to a conclusion by buying Telefónica's 35.9% stake in Cablevisión for US$ 545 million (plus US$ 395 million in debt). The investment fund, for its part, transferred control of Telefónica of Argentina (TASA) to the Spanish company in exchange for equity in Telefónica de España and ownership of a variety of communications media (Telefé, Canal Azul and Radio Continental, among others).
- Entering the Brazilian market was not easy for Telefónica. Because of concerns about possible monopolistic practices in the fixed-line telephony

86 According to information from Telefónica, the companies that will be integrated into the new firm have market shares of over 60% in the areas where they operate.

market, the company was obliged, after buying Telesp, to divest itself of its shareholding in Companhia Riograndense de Telecomunicações (CRT). Accordingly, it split the firm into two units, fixed-line telephony and cellular telephony, and kept control of the latter. In July 2000, it sold its holding in the fixed-line unit of CRT to a consortium led by Telecom Italia.

- In the region generally, the strategy of segmentation by business units has not been an easy one to apply, particularly when it has come to transferring high-growth assets from Latin American affiliates to the parent company. The creation of Terra led to problems with minority shareholders in Chile and Peru, and Telefónica's efforts to take control of the Argentine Internet provider were blocked by shareholders, led by its United States partner CEI Citicorp.
- Certain mechanisms that Telefónica has used to raise the return on its investments in the region, owing to its heavy commitments there, have not gone down well with minority partners. The parent company has begun to collect administration fees from many regional affiliates; in Argentina, where they were introduced in 1995, these fees now stand at 4.6% of turnover, while in Brazil, a charge equivalent to 1% of turnover has been levied since Telesp was privatized (*The Wall Street Journal Americas*, 18 November 1999). In Chile, the company has encountered serious difficulties because the tariffs that have been set are too low, it claims, for it to be able to sustain investment levels (see chapter II). Its staff reduction policies have also led to protests.
- Recent takeover operations have removed some of the most liquid stocks from Latin American bourses, but this has also helped to align the interests of minority shareholders with those of Telefónica.

To sum up, Telefónica has rapidly been positioning itself as one of the most dynamic companies in the global telecommunications business, first by pursuing an ambitious internationalization strategy in the segments where it had competitive advantages (basic telephony) and then by showing great adaptability to change in the sector and an exceptional ability to spot the opportunities that were beginning to emerge in the international market. Telefónica has thus strengthened its position as a global operator, with one foot in a market —Latin America and the Spanish-speaking population of the United States— that has excellent growth prospects in most segments, and with the other in the European Union, where the patterns of convergence for the coming years are now being determined. Lastly, Telefónica's alliance with Portugal Telecom has made it the leading mobile telephony operator in Brazil, a market it considers vital because it contributes some 40% of group profits (*El País*, 25 January 2001).

(b) Telecom Italia: bringer of the new GSM technology to Latin America?

Telecom Italia's position as a former State monopoly is now coming under increasing pressure from competition. In 1998, Italy's fixed-line and mobile telephony and data transmission markets were liberalized completely, while the communications regulator became fully operational. Telecom Italia is Italy's leading fixed-line and wireless telephony operator and, as the owner of 60% of Telecom Italia Mobile SpA (TIM), one of Europe's largest mobile telephony providers. In table IV.3, it figures in seventh place for both basic and international long-distance telephony, and in fifth place for cellular mobile telephony. The company also provides satellite communication and technological information services. With a view to focusing on its main activities, Telecom Italia is selling off the bulk of its interests in telecommunications equipment and installation unit manufacturing.

In early 1999, Telecom Italia entered into merger negotiations with Deutsche Telekom. Had this operation gone ahead, the combined company would have been Europe's largest telephony operator, with substantial interests in the rest of the world. It was frustrated, however, by Olivetti's hostile takeover of Telecom Italia in May 1999, at which time Olivetti also sold its existing telecommunications business to the German company Mannesmann for US$ 8.404 billion. The company most disadvantaged by these developments in the European market was Deutsche Telekom.[87] Its old rival Olivetti —which sold its computer business— now controls 55% of Telecom Italia, for which it paid US$ 34.758 billion (see table IV.4). The Italian company did not confine itself to its domestic market in the 1990s, but expanded its presence in Europe and Latin America.

When the Italian Olivetti conglomerate acquired Telecom Italia, its stated intention was to sell the

87 In Germany, the rivalry between Deutsche Telekom and Mannesmann is intensifying. Between 1998, when the market was opened up to competition, and the end of 1999, Deutsche Telekom lost about 30% of its long-distance market share, much of it to Mannesmann. With the failure of the Telecom Italia merger talks, Deutsche Telekom also lost a crucial battle with Mannesmann abroad. Mannesmann now belongs to Vodafone AirTouch.

Box IV.5
UNDERSEA CABLES: THE REAL-TIME LINK WITH THE REST OF THE WORLD

Local telecommunications operators are investing heavily to provide Latin America's main cities with fibre optic rings, in order to enhance and increase their data, voice and video transfer capabilities. A major problem arises, however, with transmissions beginning or ending outside the local market, as these have to be sent via satellite, an expensive and inefficient option. With the growth of the Internet, this "bottleneck" has become even more constrictive. To address the problem, Telefónica, Global Crossing and the Globenet Communications Group are jointly spending some US$ 4.6 billion to install undersea and land networks of fibre-optic cable connecting Latin America with the rest of the world. The communications transmission capacity of the region will thus increase dramatically over the next two years.

- Globenet, a Canadian-based operator, is responsible for the Atlantica I project, a fibre-optic network costing an estimated US$ 940 million which will link the United States with cities in Argentina, Brazil and Venezuela.
- As part of the South American Crossing (SAC) project, Global Crossing is now engaged in laying a fibre-optic network that will link up the main cities of South America early in 2001, at a cost of some US$ 2 billion.
- Telefónica is working in partnership with the optical systems manufacturer Tyco International to implement the pan-regional South America I (SAm-I or Emergia) project, which involves installing a fibre-optic ring connecting up the whole of Latin America, at an estimated cost of US$ 1.6 billion.

Whereas Globenet has concentrated on the largest and supposedly most lucrative markets, Global Crossing and Telefónica are building fibre-optic rings that will encircle the whole of South America. Because the projects of these two latter companies overlap in coverage and scope, a number of legal disputes have arisen. The objective of both is to connect to the continent at different points in order to link up with the land networks of local telecommunications companies, which will sell on access to their high-performance optical land infrastructure or "backbones". With these three major projects being implemented at the same time, scarcity in Latin America will give way to abundance. By the end of 2002, there will be 15 times as much telecommunications bandwidth capacity available as there is now, which should give the region some kind of protection against any technological and regulatory changes in the medium term.

The real winner in this situation seems to be Telefónica. The Spanish group, unlike its rivals, also controls an extensive local land network through the companies it owns or part-owns in Argentina, Brazil, Chile, El Salvador, Guatemala, Peru, Puerto Rico, Venezuela, the United States and, more recently, Mexico, which can feed traffic to SAm-I.

Source: ECLAC, Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Carlos Molina, "Una guerra enredada", América economía, Santiago, Chile, 13 July 2000.

telecommunications operator's Latin American assets (Green, 2000). A few months later, however, this strategy changed radically, and not only have the Latin American businesses been kept, but the plan is to increase the company's holdings in them. As of mid-2000, 36.4% of all Telecom Italia's investments outside its home country were in Latin America (*El Mercurio*, special edition on Italy, 2 June 2000).

Telecom Italia's presence in Latin America dates back to the early 1990s. In November 1991, the Italian company and France Télécom founded the Nortel consortium, which paid about US$ 2.5 billion[88] for 60% of one of the two firms produced by the break-up of Argentina's Empresa Nacional de Telecomunicaciones (ENTEL) at the time of privatization (see box IV.2). Nortel thus secured management control of the new firm (Telecom Argentina), which has the exclusive right to provide basic and long-distance services in the northern zone of the country (see tables IV.6 and IV.9). For much of the 1990s, this was the consortium's largest

88 The payment consisted of US$ 100 million in cash plus US$ 2.308 billion in debt securities with a market value of US$ 353 million.

Table IV.9
TELECOM ITALIA: MAIN OPERATIONS IN LATIN AMERICA, 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands)
Argentina	1991	Telecom Argentina	30.0[a]	Local, long-distance and mobile telephony, data and Internet	3 400 F
Bolivia	1995	Empresa Nacional de Telecomunicaciones (ENTEL)	50.0	Local, long-distance and mobile telephony, data and Internet	207 M
Brazil	1998	Tele Celular Sul	40.7[b]	Mobile telephony	1 416 M
	1998	Tele Nordeste Celular	40.7[b]	Mobile telephony	1 511 M
	1998	Tele Centro Sul (Telemato)	9.8[b]	Local telephony	5 000 F
	1999	Brasil Telecom	19.7	Local telephony	...
	1997	Maxitel	90.0[b]	Mobile telephony	953 M
Chile	1996	Empresa Nacional de Telecomunicaciones (ENTEL)	54.7	Long-distance and mobile telephony	...
	1997	ENTEL PCS	54.7	Mobile telephony	...
Cuba	1994	Empresa de Telecomunicaciones de Cuba (Etec)	29.2	Local and long-distance telephony	...
Paraguay	1998	Telecom Personal	20.0[c]	Mobile telephony	...
Peru	2000	TIM Perú	100.0	Mobile telephony	Under cons-truction
Venezuela	2000	Digitel	56.6[d]	Mobile telephony	

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Telecom Italia, Annual Report, 1999, Rome, March 2000 (http://www.telecomitalia.it).

[a] Telecom Italia owns 50% of the Nortel consortium, which controls 60% of Telecom Argentina. The other half of Nortel belongs to France Télécom.

[b] Through Telecom Italia Mobile (TIM), in partnership with Brazilian investors led by Bradesco and Globo.

[c] In October 1997, a consortium led by Telecom Argentina was awarded the band "B" cellular telephony licence for the whole of Paraguay. Telecom Personal entered service in June 1998 through Núcleo, a company owned by Telecom Argentina (founded by Telecom Italia and France Télécom), with 67.5%, and ABC Telecomunicaciones, with 32.5%.

[d] Through TIM.

M: Mobile; F: Fixed-line.

investment in Latin America, a region where it has given priority to modernizing and extending its services, chiefly basic telephony. By mid-2000, it had a multiservice network that was almost 100% digital. As the Argentine deregulation process neared completion, Nortel adopted a more active strategy with a view to maintaining, and where possible increasing, its Latin American presence. Telecom Argentina has invested US$ 4.3 billion in the last five years. In 1999, it laid 4,200 kilometres of optical fibre, almost as much as in the whole of the rest of the decade combined (Bachelet, 1999). Again, in July 1999, Telecom Italia and France Télécom jointly paid US$ 530 million for the 35% of Nortel owned by the Argentine Perez Companc group and the United States bank J.P. Morgan. The two European companies thus own Nortel outright, which means that they control 60% of Telecom Argentina (ECLAC, 2000a, p. 75). A month previously, Telecom Italia, acting through Telecom Argentina, had increased its presence in the Argentine wireless telephony market when, jointly with Telefónica de España, it obtained one PCS licence for the metropolitan region of Buenos Aires and two for the country's interior. The three European companies invested some US$ 660 million between them to secure these licences (Kulfas, 2000).

In early 2001, it began to be rumoured that Telecom Italia was going to buy France Télécom's share of Telecom Argentina. If this happened, Telecom Italia would own 54.7% of the Argentine company, the country's second-largest in the sector. France Télécom is heavily in debt, and Latin America does not appear to be part of its strategic focus, so it is highly likely that the French company will pull out of the region.[89] In this event, Telecom Italia would be the most logical buyer for its assets, particularly those they share in Argentina.

89 France Télécom invested heavily in costly 3G licences and is one of Europe's most indebted companies.

In 1998, Telecom Italia took a major step forward with its Latin American expansion plans by participating successfully in the telecommunications privatization process in Brazil as a member of the consortia that took control of two mobile telephony companies (Tele Celular Sul and Tele Nordeste Celular)[90] and of one of the three regional fixed-line telephony firms (Tele Centro Sul/Telemato). These transactions cost about US$ 2.95 billion, and the premiums paid for some of these firms were among the highest in the whole process (ECLAC, 2000a, pp. 42-43). A few months previously, Telecom Italia had secured three of Brazil's 10 regional band "B" cellular telephony concessions (Minas Gerais, Bahía and Sergipe) through Maxitel, a company in which Telecom Italia holds a stake of approximately 43%.

Since 1999, Telecom Italia has run its wireless telephony operations through Telecom Italia Mobile (TIM). In Brazil, this Italian company has stakes in nine mobile telephony companies, all of which operate under the TIM Celular brand, using the roaming system to provide users with national coverage.

In early 2000, Telecom Italia grouped its fixed-line interests in the country into the holding company Brasil Telecom Participações,[91] which controls two firms: Brasil Telecom, created through a merger of nine local operators (Teleacre, Teleron, Telemat, Telems, Telegoiás, Telebrasília, Telepar, Telesc and CTMR), and Companhia Riograndense de Telecomunicações (CRT), which operates in part of the state of Rio Grande do Sul.[92] Brasil Telecom now has over 5 million fixed telephone lines (70% of them residential) and provides data transmission and local, long-distance and intraregional services. Its operations cover 30% of Brazil's land area and 17% of its population (including the capital Brasilia and other large cities), and it is on its way to becoming one of the country's largest telecommunications companies. On top of this, in June 2000, Telecom Italia paid US$ 810 million for 30% of a portal, Globo.com, with the aim of pioneering the introduction of WAP (wireless application protocol) technology, which connects cellular mobile telephones to the Internet.

In Latin America, Telecom Italia has a large digital footprint based on three different technologies: GSM (ENTEL-Bolivia, ENTEL-Chile and Telecom Italia Mobile (TIM) in Peru), TDMA (Telecom Personal of Paraguay and Telecom Personal of Argentina) and CDMA (TeleNordeste Celular of Brazil). Telecom Italia seems to have the region's best GSM network, which could prove to be a major competitive advantage in the near future.

Nonetheless, the situation in Brazil is far from easy. In seeking to expand in the mobile telephony market that is so important to it, Telecom Italia has had to contend with strong competition from Brasil Telecom, its partner in fixed-line telephony. Their relationship has deteriorated so much, in fact, that Telecom Italia entered the bidding for the new mobile telephony licences without its local partners, and even voted for Brasil Telecom to stay out of the auction[93] (Vasconcellos and Fonseca, 2001, p. 21). Despite this state of affairs, the Italian company is unlikely to disengage itself from Brasil Telecom, as it would not be easy to find a buyer for its stake in the Brazilian operator. In February 2001, Telecom Italia paid US$ 780 million or so for two Brazilian band "D" licences covering São Paulo (where it will compete with Telefónica/Portugal Telecom and BellSouth) and regions in the south and west of the country (in competition with Telesystem Leap Wireless, Bell Canada and Splice). Under Brazilian regulations, Telecom Italia will have to sell its cellular unit Tele Celular Sul (or hand back its licence), as this subsidiary operates in the same region. By acquiring these two licences, TIM became the only mobile telephony operator with a nationwide digital footprint in Brazil (http://www.investor.ti.it). More recently, in March 2001, it also paid US$ 470 million for a band "E" licence to operate in the northern region (see box IV.4).

In November 1995, as part of Bolivia's Capitalization Plan, Telecom Italia secured a 50% stake in Empresa Nacional de Telecomunicaciones (ENTEL) and a six-year monopoly in basic and long-distance telephony services in exchange for a US$ 610 million investment. At the time of privatization, the potential of the Bolivian market more than justified the US$ 132

90 Tele Celular Sul operates band "A" mobile telephony in the states of Paraná and Santa Catarina, and in the Pelotas (RS) region, through Telepar Celular (Curitiba), Telesc Celular (Florianopolis) and CTMR Celular (Pelotas). Tele Nordeste Celular operates band "A" in the states of Alagoas, Ceará, Paraiba, Piauí, Pernambuco and Rio Grande do Norte, through Telepisa Celular (Teresina), Teleceará Celular (Fortaleza), Telern Celular (Natal), Telpa Celular (João Pessoa), Telpe Celular (Recife) and Telasa Celular (Maceió).

91 This holding company is controlled by the Solpart consortium, which owns 51.8% of its voting capital. Solpart's equity is held in turn by: (i) Timepart (51%), a group created by investment funds managed by Opportunity, a bank; (ii) Stet International (38%), controlled by Telecom Italia; and (iii) Techold (11%), a group founded by Brazilian pension funds and Opportunity.

92 In July 2000, Brasil Telecom Participações paid a consortium led by Telefónica de España US$ 800 million for a controlling interest in CRT (*The Wall Street Journal*, 18 July 2000).

93 Although Telecom Italia is only a minority shareholder in Brasil Telecom, it has the power to veto its decisions.

million premium paid by Telecom Italia (ECLAC, 2000a, p. 88). Besides, the idea behind the ENTEL purchase was to take advantage of Bolivia's position in the middle of South America by creating a regional communications platform there (Green, 2000). Over the last few years, ENTEL has invested around US$ 420 million in a 4,000 kilometre-long fibre-optic ring linking the country's main cities. The purpose of this investment is to strengthen the company's position in the long-distance segment, continue to win market share for it in wireless telephony and create connections with the neighbouring countries (Argentina, Brazil, Chile, Paraguay and Peru).

Telecom Italia entered Chile in 1996 by purchasing 19.9% of Empresa Nacional de Telecomunicaciones (ENTEL), the country's leading national and international long-distance telecommunications operator. At the last count, after buying up a number of small shareholdings, it had accrued 25.6% of ENTEL's share capital. Together with the Chilean Chilquinta group, it thus owns 52% of the company and has management control. The policy now being pursued is to expand the company's supply portfolio to include mobile telephony, Internet and local telephony service provision through a number of subsidiaries. In March 1998, ENTEL PCS (100% ENTEL) set up and began operating Latin America's first GSM network, this being a technological platform that is used most in Europe. In December 2000, negotiations between Telecom Italia and the Chilquinta group ended with the former buying out its Chilean partner. Telecom Italia now owns 54.7% of ENTEL and manages the company (see chapter II). Its interest in the Chilean firm (and the high price paid for it, over US$ 900 million) can be put down to the fact that ENTEL has a United States subsidiary, Americatel, which targets the population of Latin American origin in that country. Thus, Telecom Italia has succeeded in entering the prized United States market.

In Peru, Telecom Italia, through TIM, paid US$ 180 million in May 2000 for a concession to provide PCS services, thereby becoming the country's third-largest mobile telephony operator. TIM will begin operations using GSM technology, investing an extra US$ 70 million for the purpose (*Gazeta Mercantil Latino-Americana*, 15 to 21 May 2000). In October 2000, again through TIM, Telecom Italia took control of the Venezuelan mobile telephony operator Digitel.

Lastly, there is Telecom Italia's holding in the Cuban operator Empresa de Telecomunicaciones de Cuba (Etec). In 1994, when this company was privatized, Telecom Italia took only a minority shareholding in the consortium that controlled it. In June 1997, Telecom Italia increased its stake to 29.2% and took over the management of the Cuban firm, a step that led to problems with the United States Government, largely because of the provisions of the Helms-Burton Act. In 1999, the crisis caused by the interception of a light aircraft by a Cuban air force jet led United States telecommunications operators, with the exception of Sprint, to suspend international traffic to and from the island. Telecom Italia provided Etec with technical and operational support that enabled it to re-route international traffic, with beneficial effects for the Cuban operator's revenues (Telecom Italia, 2000).

To sum up, the strategy of Telecom Italia in Latin America is to strengthen its existing positions and expand its presence in the market areas that are growing most strongly by pursuing organic growth and making selective acquisitions in both fixed-line and mobile telephony (Telecom Italia, 2000). The company's strategy has begun to show greater vigour and focus over recent months as it has concentrated its efforts on the Brazilian market and on mobile telephony. Again, its policy of converting minority interests into full control, as in Chile and, possibly, Argentina, has enabled it to expand its sphere of operations steadily.

The first wave of FDI in Latin American telecommunications, then, was brought by two European firms, Telefónica de España and Telecom Italia, which arrived early and expanded from within the region. In the late 1990s, they decided to enhance their presence yet further, so that by 1999 they ranked first and twenty-fourth, respectively, among foreign firms in Latin America by consolidated sales.

2. Globalizers

Unlike the telecommunications firms that entered Latin America by taking equity in dominant national operators at privatization and then diversified away from their primarily fixed-line activities into mobile, Internet and multimedia services, globalizers are telecommunications corporations that design and implement worldwide strategies which lead them, at some stage, to invest in Latin America. That stage has

now come. These companies, which are still a fairly new force in the region, could change the Latin American telecommunications industry dramatically in the near future. Two revealing examples are Verizon/Vodafone and Telecom Americas (plus BellSouth).

(a) Verizon/Vodafone: a regional partnership between a "first wave" operator and a "globalizer"

In April 2000, Verizon Communications, the largest fixed-line and cellular telephony company in the United States, and Vodafone AirTouch, the world's leading mobile telephony operator, created a joint venture called Verizon Wireless to provide wireless telecommunications services in the United States.

More recently, in January 2001, Vodafone AirTouch made its first sortie into the Latin American market by buying 34.5% of the Mexican wireless services firm Iusacell, controlled by Verizon Communications. Drawing a parallel with the creation of the Verizon Wireless joint venture, whose objective is to expand in the United States telecommunications market, it is worth asking whether the partnership between the two firms that Iusacell represents may not be the prelude to wider expansion in the Latin American market, which is now opening up to competition. In that case, a "first wave" firm (Verizon) would be joining forces with a "globalizer" (Vodafone).

The expansion paths of Verizon Communications and Vodafone AirTouch started out from totally different geographical markets and industry segments.

(i) Verizon Communications

Verizon Communications is a United States company that was created by Bell Atlantic's takeover of GTE, an operation that was completed in June 2000.[94] Both companies were regional providers operating in a market segment —local fixed-line telephony— that has traditionally been monopolistic and heavily regulated. In 1999, before the merger, Bell Atlantic and GTE ranked third and ninth in the world, respectively, as fixed-line telephony providers, and ninth and twenty-fourth as mobile telephony operators (see table IV.3).

The new telecommunications act of 1996, which, as mentioned earlier, sought to put an end to regional operators' monopolies in their local fixed-line markets, threw Bell Atlantic's strategy into disarray. In response, the company embarked upon a spree of mergers, acquisitions and alliances with the aim of turning itself from a regional telephony operator into a multinational telecommunications firm offering a full range of services. Among the most important of these operations were the 1996 takeover of Nynex, another regional operator, which enabled the company to connect to some 37 million subscribers from Maine to Virginia (*The Nando Times*, 1996); the takeover of GTE, when the merged company changed its name to Verizon; and the alliance with Vodafone AirTouch in the mobile telephony market, which took the form of a joint venture, Verizon Wireless, in which Verizon has a majority interest (55%). As a result of these steps, Verizon has consolidated its operations in the main segments of the telecommunications market:

- It has become the leading local telephony operator in the United States, having combined the assets and long experience of Bell Atlantic in this market segment with those of Nynex and GTE. Verizon now controls 63 million basic telephony lines (Verizon, 2001).
- It is also the United States leader in mobile telephony, thanks partly to the combination of Bell Atlantic's and GTE's assets, but mainly to its partnership with the world's leading mobile telephony company, Vodafone AirTouch, for which Verizon in turn has provided a way to enter the United States market, and perhaps to conquer the Latin American market as well. Verizon now has about 25 million mobile telephone users in the United States (Verizon, 2001). Recently, in January 2001, Verizon Wireless took part in a mobile telephony licence auction in the United States, paying out US$ 8.8 billion for 113 licences, which will enable it to expand its coverage in the country (CNNfn, 2001d). Verizon is one of the main backers of the CDMA technology option for mobile telephony.
- In the Internet segment, GTE's assets give it access to a wide range of Internet-related services, e-commerce being one example, and to a business connection infrastructure in the United States and worldwide. Verizon has become a leader in data transmission services and the world's largest supplier of printed and on-line directories.

Verizon's worldwide expansion plans have also led the company to invest heavily in what should eventually be a global network able to carry voice, data, pictures and

94 The merger was announced in July 1998 and approved by the annual meetings of both companies in May 1999 (Bell Atlantic, 2000 and GTE, 2000). On 30 June 2000, the final agreement was signed and it was decided that the new entity would be called Verizon Communications.

Internet applications at high speed between different parts of the planet. Verizon International has a stake of about 30% in FLAG[95] Telecom Holdings, the owner and operator of a 28,000 kilometre-long undersea fibre-optic network that runs from the United Kingdom to Japan, linking Europe and Asia with 16 stations in 13 countries.[96] FLAG is also engaged in a joint venture with Global Telesystems Group to lay a transatlantic cable that will link America and Europe in the second quarter of 2001, as well as a transpacific cable that will connect America with Asia. In addition, Verizon is working closely with Metromedia Fiber Network (MFN),[97] a high-speed Internet access provider for businesses that owns a fibre-optic land network linking a number of cities in the United States and Europe.

The combination of FLAG's undersea networks and the land networks of Verizon and MFN in the United States and Europe should enable Verizon to put together a large high-speed point-to-point global communications platform linking the world's major cities. Recently, in February 2001, Verizon announced plans to invest US$ 1 billion over five years to expand its global network. New York will be connected with six European cities (Amsterdam, Brussels, Frankfurt, London, Milan and Paris) during the second quarter of 2001, and it should be possible to connect further cities in Europe (Geneva, Madrid and Zurich), Asia (Singapore) and Latin America (Buenos Aires, Caracas and Mexico City) to Verizon's international network in 2003 (*Network World Fusion News*, 2001b).

Verizon has interests in telecommunications firms in 21 European, Asian and Latin American countries. Verizon's main presence in Latin America is provided by the operations of GTE in Argentina, the Dominican Republic, Puerto Rico and Venezuela, in all of which it is the dominant operator in every market segment (see table IV.10). These operations are supplemented by Bell Atlantic's involvement in the Mexican wireless telephony business.

In the Dominican Republic, GTE has controlled and operated Compañía Dominicana de Teléfonos (Codetel) for over 40 years. This is the country's largest telecommunications firm, with a presence in all market segments.

In 1991, an international consortium led by GTE paid US$ 1.885 billion for 40% of Compañía Anónima Nacional de Teléfonos de Venezuela (CANTV). Verizon now owns 26.4% of CANTV, the country's leading telecommunications firm, which had a monopoly in the basic telephony segment from 1991 to 2000. To prepare for the arrival of competition in November 2000, CANTV has invested over US$ 5 billion in infrastructure modernization (Wernick, 2000). The company now provides a full telecommunications service, including local and long-distance fixed-line telephony, wireless telephony, paging, private networks, public telephones, data transmission, directories and other value-added services.

In Argentina, Verizon owns 58.5% of Compañía de Teléfonos del Interior (CTI), which provides wireless telephony services to about 840,000 customers in northern and southern regions of the country. It also owns GTE PCS, a company created by GTE to operate one of the two PCS licences for the metropolitan Buenos Aires region (with a potential market of 13 million customers) which it secured in June 1999. Between them, GTE PCS and CTI have the capacity to provide wireless telephony services nationwide. Besides the wireless network, in 1999 GTE was awarded a licence to provide national and international long-distance and local telephony services.

In Puerto Rico, GTE paid some US$ 300 million in March 1999 for 40% of Telecomunicaciones de Puerto Rico (Telpri), a company that provides local, long-distance and wireless telephony services and Internet access. Over the rest of that year, a further US$ 222 million or so was spent on modernizing and expanding the firm (GTE, 2000).

Besides GTE, Bell Atlantic is a part-owner of Iusacell, Mexico's second-largest mobile telephony operator, which provides wireless telecommunications services in four of the country's nine central regions. Between October 1993 and June 1994, Bell Atlantic gradually raised its holding in Iusacell to just over 40%. In February 1997, it took over the management of the company (ECLAC, 2000a). Since 1993, Bell Atlantic has invested some US$ 1.2 billion in Iusacell (Bell Atlantic, 2000).

As has been seen, Verizon's Latin American assets —with the exception of those in Puerto Rico— were acquired by its two constituent companies, Bell Atlantic and GTE, during the "first wave" of telecommunications FDI in the region. All its mobile telephony operations use CDMA technology.

95 FLAG stands for Fiberoptic Link Around the Globe.

96 United Kingdom, Spain, Italy, Egypt (2), Jordan, Saudi Arabia, United Arab Emirates, India, Thailand, Malaysia, China (2), Republic of Korea and Japan (2) (Verizon, 2001).

97 In October 1999, Bell Atlantic signed a US$ 550 million contract with Metromedia Fiber Network (MFN) entitling it to use that company's fibre-optic network in the United States and Europe. Bell Atlantic had previously invested US$ 1.7 billion in MFN (Verizon, 2001).

Table IV.10
VERIZON: MAIN OPERATIONS IN LATIN AMERICA, 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands)
Argentina	1994	Compañía de Teléfonos del Interior (CTI) (thousands)	58.5	Local, long-distance and mobile telephony	839 M
	1999	GTE PCS	100.0	Mobile telephony	...
Dominican Republic	1960	Compañía Dominicana de Teléfonos (Codetel)	100.0	Local, long-distance and mobile telephony	227 M 707 F
Mexico	1993	Iusacell Group	40.2	Mobile telephony	1 500 M
Puerto Rico	1999	Telecomunicaciones de Puerto Rico (Telpri)	40.0	Local, long-distance and mobile telephony, voice, data and Internet	298 M 1 300 F
Venezuela	1991	Compañía Anónima Nacional Teléfonos de Venezuela (CANTV)	26.4	Local, long-distance and mobile telephony, voice, data and Internet	1 400 M 2 600 F

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Verizon (http://www.verizon.com).

M: Mobile; F: Fixed-line.

(ii) Vodafone

Vodafone was created in 1985 as a subsidiary of the British electronics group Racal, to carry out that company's plan of launching the United Kingdom's first mobile telephony network. Six years later, in 1991, Vodafone was fully fledged and obtained an independent listing on the London and New York stock exchanges. Convinced that wireless telephony had a great future before it, Vodafone committed itself firmly to that market segment right from the outset. Its strategy subsequently became a "globalizing" one, extending beyond the United Kingdom to other markets.

At the same time as it was consolidating its position as the United Kingdom's foremost mobile telephony company, reaching the market first with most new initiatives and steadily increasing its customer base (from 697,000 in 1991 to 6,860,000 in 1999) (Vodafone, 2001), Vodafone was multiplying its mobile telephony interests abroad. Through shareholdings and alliances in other countries, particularly in Europe but also in Asia, Africa and the Middle East,[98] the company planned to build a large digital footprint spanning the globe. It was with this in view that, in 1994, it joined the Globalstar consortium (in which it owns a 7.2% stake) to bring into service a constellation of mobile telecommunications satellites. This increases the coverage available to users with a dual GSM-satellite system, enabling them to make calls to places outside the areas covered by GSM ground stations (Vodafone, 2001).

It was in 1999, however, that Vodafone made the great leap in its international strategy with a number of dramatic operations, some of them aggressive, that have considerably enhanced its international presence and have propelled it to the top of the world mobile telephony rankings:

- In January 1999, Vodafone made its début in the United States market by announcing that it intended to buy AirTouch, one of the largest companies in the country's mobile telephony segment. It eventually acquired the firm for US$ 60.3 billion, winning out over Bell Atlantic, which had been the first to make an offer. AirTouch brought Vodafone 7.5 million subscribers in the United States, as well as assets in Europe (Belgium, Germany, Italy, Poland and Spain) and Asia (India and Japan) that complemented Vodafone's existing worldwide network (*Le Monde*, 1999a).

98 In 1992, Vodafone signed a GSM roaming agreement with Telecom Finland. The following year, it joined consortia in Australia, Fiji, Germany, Greece and South Africa and created Vodafone Group International to oversee its interests outside the United Kingdom and buy licences. In 1995, it moved into France, Germany, Hong Kong and the Netherlands, and in 1998 it purchased a GSM network in New Zealand (Vodafone, 2001).

- September 1999 saw the announcement of a partnership between Vodafone and Bell Atlantic in the United States mobile telephony business. Having competed to buy AirTouch nine months previously, the two companies now declared their intention of creating a joint venture that would combine their respective wireless assets in the United States. The operation was completed in April 2000 with the creation of Verizon Wireless, in which the Bell Atlantic/GTE group, now called Verizon Communications, had a controlling interest of 55%, while Vodafone held a 45% minority stake. With the assets of Bell Atlantic and GTE, the new company had some 25 million subscribers in 49 of the 50 states, and thus became the leading mobile telephony operator in the United States (*Network World Fusion News*, 2000). Both systems use CDMA technology.
- In November 1999, two months after the partnership with Bell Atlantic in the United States was announced, Vodafone AirTouch launched a hostile takeover bid worth an impressive US$ 110 billion for Mannesmann, a German industrial group that had successfully refocused part of its business on telecommunications. The two companies had previously been linked by cooperation agreements in the main European markets, where they had taken joint shareholdings in the same telecommunications operators. In October 1999, however, Mannesmann had surprised Vodafone by purchasing Orange, the United Kingdom's third-largest mobile telephony operator and a competitor to Vodafone. By taking this step, Mannesmann had implicitly broken the cooperation pact and, to make matters worse, had done so in what Vodafone regarded as its own domain, the British market. Vodafone's objective in cooperating with Mannesmann had been to achieve leadership in European telecommunications. Since it viewed Mannesmann's action as a breach of the pact between them and a threat to its position in the European market, especially France, Germany and Italy, where the two companies had joint shareholdings in telecommunications operators, the only solution, ultimately, was to take over Mannesmann. This operation, which met with strong resistance from the Mannesmann board and caused an uproar in Germany,[99] was finally completed on 3 February 2000 for a record sum (over US$ 200 billion).[100]

Vodafone had the world's eighth-largest mobile telephony customer base in 1999, before it bought Mannesmann and AirTouch, which ranked seventh and tenth respectively (see table IV.3). By acquiring these two firms, it became the world's leading mobile telephony operator. Its strategy is to build a single global platform that will enable it to retain its leading position as an operator capable of providing a full range of multimedia mobile products, including advanced data, voice, graphics, messaging, information and Internet commerce services. The objective is to achieve the greatest possible worldwide coverage by taking controlling or minority stakes in different local operators or by acquiring licences in countries where Vodafone does not have an operator. The company's goal is to be able to give its users the ability to send and receive calls and information, download content and carry out transactions anywhere on the planet at any time (Vodafone, 2000).

In pursuit of this strategy, Vodafone has entered into a number of alliances with companies such as Sun Microsystems and IBM (computing), Charles Schwab (stock market information), Sabre/Travelocity (travel information) and Infospace (news, weather forecasts, cinema programming, horoscopes and other services), and with equipment manufacturers such as Ericsson, Nokia and Palm Computing (Vodafone, 2001).

Vodafone currently operates in 15 countries in Europe, 3 in Africa and 6 in Asia and the Pacific, plus the United States, giving a total of 25 countries. It owns controlling interests in operators in 11 European countries and in Australia and New Zealand. On 31 March 2000, it had close to 40 million customers, not counting users of its paging service (Vodafone, 2001). It has so far been absent from Latin America, but in January 2001 it concluded an agreement with the Peralta group in Mexico to buy that company's shareholding in Iusacell. If this operation comes to fruition —approval still has to be given by Mexican regulators and by the majority shareholders of Iusacell, which is controlled by Verizon Communications— Vodafone will pay US$ 973.4 million for 34.5% of Iusacell's equity (*Network World Fusion News*, 2001a).

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99 In Germany, both politicians and unions mobilized in support of Mannesmann. The Chancellor, Gerhard Schröder, personally condemned "this type of escapade…which destroys the culture of a business" (*Le Monde*, 1999b). The hostile takeover method, which is quite common in the United States, clashes with the business culture of Europe generally but especially Germany's, which is based on the principles of cooperative management and consensus.

100 To overcome the opposition of the Mannesmann board and force it to agree to the acquisition, Vodafone allied itself with the French Vivendi group, and in January 2000 the two companies founded a joint venture called Multi Access Portal (MAP) (50%/50%) with a view to creating a multi-access portal for the whole of Europe that would compete with Yahoo (*Le Monde*, 2000a and 2000b).

Vodafone has committed itself heavily to 3G mobile telephony, buying UMTS licences in a number of European countries through its local operators there. In some cases, this has meant spending large sums: in June 2000, the company paid about US$ 9.5 billion for a UMTS licence in the United Kingdom; in August the same year, it acquired one in Germany through Mannesmann Mobilfunk, for about US$ 8 billion; in October, its participation in the Italian auction, through Omnitel (76.12%), cost it about US$ 2 billion; more recently, on 31 January 2001, it applied through SFR (31.86%) for one of the French licences, priced by that country's authorities at approximately US$ 4.6 billion (*El País*, 2000a and 2000b and *Le Monde,* 2001b).[101] Enthusiasm for 3G mobile telephony, which led telecommunications firms to spend some US$ 100 billion on licences in Europe alone between April 2000 and January 2001, has since been replaced by numerous doubts about the profitability of 3G operations and the future of the technology. Network installation[102] and marketing costs will have to be met on top of the high prices paid for the licences. The technology is still unproven, and the equipment manufacturers, Nokia and Ericsson,[103] are having trouble meeting the deadline of 1 January 2002 that they themselves set[104] (*The Economist*, 2001).

Compared to other companies that have committed themselves to 3G mobile telephony in Europe, Vodafone has some notable advantages: it has acquired licences in almost all the European countries at widely varying prices, which will enable it to cross-subsidize between them;[105] it already has a strong customer portfolio, which will mean lower marketing costs; and it has a much healthier financial structure than its competitors,[106] so it is better placed to secure financing, at lower rates, and is less dependent on the stock market, which is very depressed. If 3G technology can avoid the pitfalls ahead, Vodafone will be the best placed of the few firms well enough equipped to stay in the latest-generation mobile telephony race. According to a recent study by Forrester Research, by 2008 only five companies will have survived the "UMTS effect": Vodafone, T-Mobil (Deutsche Telekom), France Télécom-Orange and BT Cellnet, with low levels of risk, should be certain winners, while the fifth place will be closely contested among KPN, Telefónica de España, Telecom Italia and NTT DoCoMo (*Le Monde,* 2001c).

By going into partnership with Verizon in the United States and, recently, in Latin America, Vodafone has combined its global vision and long track record in mobile telephony with the United States company's assets and early experience in the continent, whose countries are thus being given the opportunity to connect up to its international mobile telephony platform. Vodafone has a solid GSM platform in Europe and Asia and is building a CDMA platform for North and Latin America. Its expansion strategy in the Americas is being firmly supported by Verizon, the leader in CDMA.

(b) Telecom Americas plus BellSouth: the first digital footprint in the Americas?

Telecom Americas was created by SBC Communications, one of the largest operators in the United States, together with its partners Telmex and Bell Canada International, in pursuit of an aggressive plan to establish a strong, cohesive presence in the Americas. One of SBC's main competitors in Latin America, BellSouth, is none other than its new partner in Cingular Wireless, into which the two companies have combined their United States cellular mobile telephony assets. A similar merger in Latin America would create the hemisphere's largest cellular mobile telephony operator by far, with a substantial digital footprint based on the TDMA technology that the two firms promote.

Telecom Americas is a recent initiative that could have dramatic effects on the telecommunications industry of the region, where it has already become the leading mobile telephony provider. It is a vehicle whose sole purpose is to combine the Latin American growth efforts of three major companies: SBC Communications, the world's third-largest telecommunications company; América Móvil, an affiliate of Telmex, the dominant operator in Latin

101 Through its operators, it also secured licences in Spain (March 2000), the Netherlands (July 2000), Austria (November 2000), Sweden (December 2000) and Portugal (December 2000) (see table IV.1).

102 Unlike GPRS technology (also known as 2.5 G), which can work with existing infrastructure, 3G technology requires a costly new network (*The Economist*, 2001).

103 On 26 January 2001, Ericsson announced that it would stop making cellular telephones and subcontract the work to Flextronics, a Singapore-based firm, in an effort to reduce its costs (*The Economist*, 2001).

104 It is now being said that the UMTS network and mobile telephones will not actually be ready until 2003, or even 2004 (*Le Monde*, 2001d).

105 Unlike British Telecom and Deutsche Telekom, which have only bought expensive licences in Germany and the United Kingdom (*Total Telecom*, 2001d).

106 Vodafone's debt/equity ratio of 9.5% is very low compared to the figures for Telefónica (94%), Deutsche Telekom (127%), British Telecom (113%) and France Télécom and KPN (over 200%) (*Le Monde*, 2001c).

America's second-largest market; and Bell Canada International, the vehicle through which Canada's dominant operator is expanding in the region. It seems that SBC will be the driving force behind this initiative, since it is a part-owner of the other companies involved: Telmex (about 9% of voting shares since 1990), América Móvil (11.4%) and BCI's parent company, Bell Canada Enterprises (20% since 1999). The project will involve linking the North American platform of these firms with the one that is being built up in Latin America, to create a consolidated TDMA-based platform for the Americas. Each partner has an important contribution to make to the new venture. In 2001, Telecom Americas showed its hand in the region, first by acquiring a Venezuelan licence in January and then, in February, by taking a stake (19.9%) in the Brazilian company Tess, which operates in the state of São Paulo (*Total Telecom*, 2001c).

SBC Communications, which was created by the break-up of AT&T in the 1980s, has become one of the world's largest telecommunications companies, ranking second in the fixed-line segment and sixth in cellular mobile telephony in 1999 (see table IV.3). In that year, over three quarters of its revenue (76%) came from basic telephony, with cellular mobile telephony and the Internet contributing much less (14% and 10%, respectively). SBC's strategic goals were to become a full service provider (including long distance and the Internet) and to enlarge its digital footprint nationally and internationally. It largely achieved the first goal by acquiring Ameritech in 1999 (US$ 62.6 billion), the Pacific Telesis Group in 1997 (US$ 16.5 billion), Southern New England Telecommunications in 1998 (US$ 5.8 billion) and Prodigy (the third-largest Internet services provider) in 1999. Ameritech brought with it some major foreign assets, including holdings in Bell Canada and TeleDenmark. On another front, SBC was given permission by the United States Federal Communications Commission to provide long-distance telephony services in other parts of the country. Again, the new alliance with Williams Communications improved the company's broadband connectivity, enabling it to become the foremost digital subscriber line (DSL) provider in the United States. In 2000, SBC and BellSouth founded a joint venture called Cingular Wireless, combining the two firms' United States cellular telephony activities (about 19 million customers).[107] Cingular Wireless, acting through Salmon PCS, was one of the main beneficiaries of the United States auctions for mobile operating licences, paying out US$ 2.3 billion for 79 of these in January 2001.

By 1999, SBC's international system had invested a total of over US$ 22 billion in 24 countries, the greatest concentration being in Canada (assets worth US$ 3.77 billion), Mexico (US$ 906 million) (see table IV.11) and Europe, where the bulk of the company's holdings came with the 1999 acquisition of Ameritech. SBC thus became the largest outside investor in Europe's telecommunications industry, with operations in Belgium, Denmark (assets worth US$ 3.019 billion), France, Germany and Norway. It also owns assets in other countries, such as Brazil, Israel, Puerto Rico, South Africa and Taiwan Province of China. In 1999, jointly with Telmex, it took an equity stake in the Brazilian firm Algar Telecom Leste with a view to providing cellular mobile services in Rio de Janeiro and the state of Espírito Santo. That same year, again in partnership with Telmex, it took over Cellular Communications of Puerto Rico. Although its system in Latin America (outside of Mexico) is still limited, SBC has a strong interest in the region, as was demonstrated by the initiatives it undertook in partnership with Telmex in 2000-2001.

Telmex, Mexico's former State monopoly, is Latin America's largest telephone company because it was not broken up at privatization in 1990 (see box IV.3). In 1999, it was the only Latin America-based telephone company to figure in the list of the industry's largest, ranking thirteenth in the fixed-line segment and tenth in the long-distance segment (see table IV.3), while in Latin America it was the leader in all three telephony segments, including cellular mobile (see table IV.5). In 1990, Telmex was taken over by the Mexican Carso group in partnership with two major foreign companies, SBC Communications and a subsidiary of France Télécom. In 2000, France Télécom sold its stake because its strategy had focused once again on Europe. Telmex and SBC have recently strengthened the links between their international expansion efforts.

Telmex is the dominant operator in Mexico, where it has very substantial market shares in local (95%), long-distance (66%) and mobile (72%) telephony, and in data and Internet services (60%). It has 11.8 million fixed lines, between 10 and 11 million cellular telephony customers and a portal that it owns jointly with Microsoft (T1MSN). Telcel, its cellular mobile telephony subsidiary, whose digital footprint is based on TDMA technology, was until recently the only operator to provide a national service. Telmex's international presence is fairly small, consisting of interests in

107 The priorities of Cingular Wireless are to gain a firmer foothold in data transmission, integrate its operations and expand geographically.

Table IV.11
SBC COMMUNICATIONS: MAIN OPERATIONS IN THE AMERICAS, 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands) (2000)
Canada	1999	Bell Canada Enterprises	20.0	Local telephony, mobile telephony, data, Internet	2 000 M
Mexico	1990	Telmex	9.0	Local telephony, mobile telephony, data, Internet	10 500 M
Puerto Rico	1999	Cellular Communications of Puerto Rico (CCPR)	50.0	Mobile telephony	487 M
Brazil	1999	Algar Telecom Leste (ATL)	25.0	Mobile telephony	1 000 M

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from SBC Communications, Telmex and Bell Canada International (http://www.sbc.com; http://telmex.com.mx; and http://www.bci.ca).

M: Mobile

telecommunications firms in Guatemala (Teléfonos de Guatemala (Telgua)) and Ecuador (Consorcio Ecuatoriano de Telecomunicaciones (Conecel)) and in some prepaid cellular and long-distance telephony companies in the United States. It was included in SBC's North American platform through its partnerships or alliances with Prodigy and Williams Communications. In 1999, it took part in SBC's most important Latin American initiatives, including the successful bid for a licence for Algar TeleLeste in Brazil and the takeover of Compañía Celular de Puerto Rico (CCPR). Telmex believes that the "natural" way for it to grow is as a full service provider catering to Spanish-speaking customers in the Americas.

In 2000, Telmex restructured its assets to create two independent companies with totally different focuses, Telmex and América Móvil. Telmex specializes in basic telephony, including data and Internet services, while América Móvil was basically left with Telcel, cable television and the group's international assets (see table IV.12). América Móvil, in which Carso and SBC hold stakes of 28% and 9%, respectively, has thus become one of the region's largest cellular mobile telephony providers and is in a good position to take advantage of opportunities in Latin America.

Bell Canada International (BCI) is one of the companies that Canada's leading telephone operator, Bell Canada Enterprises (in which SBC holds a 20% stake), has created to take advantage of the international opportunities it has identified. Bell Canada ranks fourteenth in the world as a fixed-line operator (see table IV.3). Following some early investments in Asia (China, India, the Republic of Korea and Taiwan), BCI opted firmly for Latin America (see table IV.13). Its strategy has been to use partnerships with leading companies to maximize scale and attain a better understanding of local markets. Its objective has been to invest solely in markets where it can secure a substantial shareholding in a major company. It forms part of one of Latin America's main TDMA platforms.

In late 2000, SBC (11.4%) persuaded América Móvil (44.3%) and BCI (44.3%) to combine their Latin American expansion efforts into a new company, Telecom Americas, which would have the competitive, high-connectivity networks on both fixed and mobile platforms that it needed to take advantage of cellular mobile telephony, broadband and Internet opportunities in South America. Telecom Americas was provided with US$ 4 billion of assets and has US$ 2.2 billion cash either on hand or committed to it. Having acquired Techtel, a Telmex asset in Argentina, to supplement the operations of América Móvil, the company has almost 15 million cellular telephony customers in Latin America, with a strong presence in Argentina, Brazil, Colombia, Ecuador, Guatemala, Mexico, Puerto Rico and Venezuela.

As already mentioned, SBC and BellSouth have combined their United States cellular mobile telephony operations into Cingular Wireless (of which they own 60% and 40%, respectively), thereby creating one of the world's largest companies in this segment. The two partners in Cingular Wireless are important backers of the TDMA option through their participation in the Universal Wireless Communications Consortium (UWCC). BellSouth is the world's sixth-largest fixed-line telephony operator (see table IV.3) and the

Table IV.12
AMÉRICA MÓVIL: MAIN OPERATIONS IN THE AMERICAS, 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands) (2000)
Argentina	1999	Techtel	60.0	Local telephony, mobile telephony, data	
Ecuador		Conecel	60.0	Mobile telephony	227 M
United States	1999	Comm South	97.0	Prepaid local telephony	
		CompUSA	49.0	Distribution of computer equipment	
		Topp Telephone	97.0	Prepaid cellular telephony	656 M
Guatemala		Telgua	83.0	Local, long-distance and mobile telephony, data, cable TV	189 M
Mexico	1990	Telcel	100.0	Mobile telephony	10 500 M
		Cablevisión	49.0	Cable TV	
Brazil	1999	Algar Telecom Leste (ATL)	25.0	Mobile telephony	1 000 M
Puerto Rico	1999	Compañía Celular de Puerto Rico (CCPR)	50.0	Mobile telephony	487 M

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Telmex (http://telmex.com.mx).

M: Mobile

third-largest in the United States, after Bell Atlantic and SBC. Like SBC, it has a growing presence in wireless telephony, data transmission and Internet services, even though most of its revenue comes from local fixed-line services. It differs from SBC, however, in having a substantial presence in the region, ranking thirty-fourth among foreign firms by 1999 consolidated sales (see table I.11). Its digital footprint in the region is a mixture of TDMA (BCP Participaçoes of Brazil, Celumóvil of Colombia, BellSouth of Panama and BellSouth of Peru) and CDMA (Movicom of Argentina, Movicom of Uruguay and Telcel of Venezuela).

Although BellSouth ranks sixth in fixed-line telephony (see table IV.3), its internationalization strategy is focusing more and more on mobile telephony. The company now provides telecommunications services to over 37 million customers in almost 20 countries in Latin America, Europe, Asia and the Middle East, in addition to its United States operations. In mid-1998, BellSouth initiated a major strategy change aimed at making Latin America its main centre for international operations.[108]

By late 2000, BellSouth was one of the largest wireless telephony operators in the region, with almost 9 million subscribers in the 11 countries serviced by its affiliates (see table IV.14). Between 1988 and 1999, BellSouth invested some US$ 8.6 billion in Latin America (*Gazeta Mercantil Latino-Americana*, 31 January to 6 February 2000), and in 1998 its revenue in the region was US$ 1.5 billion, accounting for two thirds of its non-United States turnover. In 1999, its international operations performed excellently, with its customer base growing by almost 70% and its revenues rising by 40.7% to top US$ 3 billion, US$ 2.4 billion of which was generated in Latin America (BellSouth, 2000).

When it began operating in the region in the late 1980s, BellSouth was already clear about one thing: it was going to create new mobile telephony companies, rather than participating in privatizations (Ferro and Bachelet, 1999). It therefore concentrated on obtaining licences to provide wireless telephony services to high-income segments and corporate clients, particularly in Argentina, Chile, Uruguay and Venezuela.

108 In late 1998, BellSouth sold its 65% share in BellSouth New Zealand to the British company Vodafone Group for US$ 270.5 million. Then, in April 1999, it transferred ownership of the Honolulu cellular telephony company in Hawaii to AT&T.

Table IV.13
BELL CANADA INTERNATIONAL: MAIN OPERATIONS IN LATIN AMERICA, 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands) (2000)
Brazil	1997	Americel	16.3	Mobile telephony	330.2 M
		BV Interactiva	45.0		
	1995	Canbras	54.7	Cable TV, private local telephony	
	1998	Telet	16.3	Mobile telephony	250 M
	1999	Vésper	34.4	Mobile telephony	318.2 M
Colombia	1994	Comcel	55.0	Mobile telephony, data	750 M
	1998	Occel	68.4	Mobile telephony	150 M
Mexico	1998	Axtel	27.4	Broadband	...
Venezuela	1999	Genesis	51.0	Data, Internet	...

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from Bell Canada International (http://www.bci.ca).

M: Mobile

BellSouth now has a strong presence in a number of the region's countries. In Argentina, it has secured three cellular mobile telephony licences through its subsidiary Movicom, enabling it to cover the whole country, and it has been able to enter the basic telephony and data transmission segments as a result of recent changes in the country's regulations. BellSouth is now looking to compete across the full range of services in every telephony segment in Argentina.

The company has sought to position itself well in Brazil, the region's largest market. In the second half of 1997, during the first stage in the transfer of the Telebrás system to the private sector, BCP Telecomunicações, a consortium headed by BellSouth, successfully bid US$ 2.453 billion for the right to operate band "B" mobile telephony services in São Paulo.[109] The same consortium subsequently paid US$ 512 million for a licence to provide these services in the country's north-eastern states (ECLAC, 1998). Between 1997 and 1999, BellSouth invested close to US$ 950 million in Brazil to finish setting up its digital cellular telephony networks (*Gazeta Mercantil Latino-Americana*, 31 January to 6 February 2000). In May 2000, it paid US$ 229 million for 16.5% of the Brazilian cellular telephony company Tele Centro Oeste Celular Participações, which provides services in the country's capital, Brasilia, and in a number of states in the Amazonia region.

As well as improving its position in the main South American markets, in 1998 BellSouth decided to consolidate its presence in other countries of the region where it already had substantial assets (Chile, Peru and Venezuela) and to add new customers in countries that it had not so far entered (Colombia and Guatemala). BellSouth entered Peru in early 1997 by purchasing 58.7% of Tele 2000, for which it paid US$ 112.3 million. In May 1998, it was awarded the concession to provide band "B" cellular telephony services to a population of 17 million in the Peruvian interior, thereby achieving national coverage. Between May and November 1999, it raised its stake in Tele 2000 to about 90%, at a cost of almost US$ 194 million.

In Chile, BellSouth bought a further cellular telephony licence from ENTEL (then controlled by Telecom Italia and the local Chilquinta group) for US$ 90 million in early 1999, thereby increasing its customer base and achieving national coverage. BellSouth was now entitled to take on subscribers in the Metropolitan Area and the V Region of the country, and to provide its services nationally using the roaming system. Since the transaction did not include any transfer of customers or infrastructure, however, BellSouth has had to build its own network to make use of the licence.

In Venezuela, new investment increased the customer base of BellSouth's subsidiary Telcel Venezuela by 90% (BellSouth, 2000, p. 12). Liberalization of the country's basic telephony market in

109 At the time of the bidding, the main shareholders in the BCP consortium were BellSouth (44%) and the Brazilian financial group Safra (44%).

Table IV.14
BELLSOUTH: MAIN OPERATIONS IN LATIN AMERICA, MAY 2000

	Year initiated	Local company	Holding (percentage)	Main services	Customers (thousands) (May 2000)
Argentina	1989	Movicom BellSouth	65.0	Mobile telephony, data, Internet	1 416.3 M
Brazil	1998	BCP Telecomunicações	44.5	Mobile telephony	2 185.3 M
	2000	Tele Centro Oeste Celular Participações (TCO)	16.5	Mobile telephony	
Chile	1991	BellSouth Chile	100.0	Mobile and long-distance telephony, Internet	482.3 M
Colombia	2000	Celumóvil	66.0	Mobile telephony	466 M
	2000	Compañía Celular de Colombia (Cocelco)	100.0[a]	Mobile telephony	215.0 M
Ecuador	1997	BellSouth Ecuador	89.4	Mobile telephony	199.1 M
Guatemala	2000	BellSouth Guatemala[b]	60.0	Mobile telephony	
Nicaragua	1997	BellSouth Nicaragua	89.0	Mobile telephony	59.8 M
Panama	1996	BellSouth Panama[b]	42.0	Mobile telephony, Internet	158.2 M
Peru	1997	BellSouth Peru (formerly Tele 2000)	93.9	Mobile telephony, cable TV	347.5 M
Uruguay	1991	Movicom BellSouth	46.0	Mobile telephony, Internet	138.4 M
Venezuela	1991	Telcel Venezuela	78.0	Mobile telephony, Internet	
	1998	Comtel Comunicaciones	60.0	Mobile telephony	3 078.5 M

Source: ECLAC, Information Centre of the Unit on Investment and Corporate Strategies, Division of Production, Productivity and Management, on the basis of information from BellSouth (http://www.bellsouth.com).

[a] Through Celumóvil.

[b] BellSouth and the Panama-based Multi Holding Corporation (MHC) jointly own and operate BSC of Panama, a company that provides cellular telephony services under the BellSouth brand name. MHC also owns 40% of BellSouth's operation in Guatemala.

M: Mobile

late 2000 is expected to lead to fierce competition between Telcel Venezuela and CANTV, currently the main operator, which is controlled by Verizon, another United States firm. BellSouth has announced that it is looking to invest between US$ 300 million and US$ 500 million within the next two years to build up a 500,000-strong fixed-line telephony customer base in Venezuela (Wernick, 2000).

Colombia and Guatemala are very important new markets for BellSouth. In October 1999, a consortium led by BellSouth successfully bid US$ 23 million for the right to provide wireless telecommunications services in Guatemala. In June 2000, it paid US$ 295 million for 33.8% of Celumóvil, a firm that operates in six of Colombia's 10 largest cities, including Bogota, Barranquilla and Cartagena. A few days later, the company bought a further 16.6%, raising its stake in Celumóvil to 50.4%. Through this local operator, BellSouth also conducted negotiations with the owners of Compañía Celular de Colombia (Cocelco), which provides services in the western region of the country, including the cities of Cali and Medellín. These talks led to it buying Cocelco for US$ 370 million. With this transaction, BellSouth was able to increase its stake in Celumóvil to 66% and take control. Together with the acquisition of Cocelco, this gave BellSouth the largest cellular telephony market share in Colombia.

To sum up, three main strands can be identified in BellSouth's Latin American strategy. The company is seeking to enlarge its existing mobile telephony operating base, expand geographical coverage in the region and develop new lines of business as deregulation progresses there. The most important reason for BellSouth's interest in Latin America —apart from the

tremendous growth potential of its telecommunications market— is that in this part of the world, as in no other, the company has the opportunity to become a regional power. It has a common brand in most of the countries and a substantial customer base, to which it can offer a wider range of products and services (mobile connection, common branding and data carriage) by integrating its cellular telephony operations into a comprehensive telecommunications service. From BellSouth's point of view, then, wireless communication is a platform that should enable it to provide a wide range of telecommunications services in the near future.

The decision by BellSouth and SBC to integrate their United States cellular mobile telephony assets into a new firm, Cingular Wireless, suggests that there is a logic at work which may result in the same happening in the region.[110] BellSouth's extensive system in South America complements the mainly Mexican assets of Telecom Americas, which suggests that the two companies could integrate easily. Apart from the financial and commercial logic, there is great technological affinity between these firms, as they all use TDMA technology, a 2G digital mobile telephony variant. If BellSouth's Latin American network were combined with that of Telecom Americas, not only would the resultant company instantly become the region's largest cellular mobile telephony operator, but it would also have an *integrated presence* second to none in many Latin American countries. This market segment would thus be consolidated under the control of one of the industry's globalizers: Telecom Americas/ BellSouth.

C. CONCLUSIONS

The globalization process has perhaps advanced more in the telecommunications industry than in any other over recent years. The effects, both positive and negative, have been extraordinary. In many countries, rapid modernization and expansion of the sector, driven by copious FDI inflows, is now an established fact, as is the industry's beneficial influence on systemic competitiveness. While this progress is easing countries' integration into the international economy, however, the less positive aspects, which include financial instability and imprudent behaviour by economic agents and national governments, are also striking. There is a clear perception that the level of risk associated with the sector has increased significantly. It is in everyone's interest to seek the greatest possible amount of common ground between the objectives of corporate strategies and those of national telecommunications policies, with a view to promoting the positive effects and minimizing the negative ones.

Three basic factors —technological change, increased competition and the transnationalization of economic agents— are driving developments in the telecommunications industry. As it speeds up, technological change (digitalization, increased capacity via broadband, 3G technologies associated with the mobile/Internet/multimedia convergence) is holding out the prospect of large profits for innovative companies that succeed in coming up with "killer applications", i.e., commercially viable innovations that rout the competition. Other firms, however, could be destroyed by poor or ill-timed technology decisions. Greater competition boosts technological innovation but also increases risk. Competition levels in the telecommunications industry vary greatly among segments, being somewhat low in fixed-line telephony, medium in mobile telephony and high in Internet services. Few countries have managed successfully to combine greater competition in each segment with greater private-sector involvement and appropriate regulation. The transnationalization of economic agents has raised entry barriers in the industry owing to the increasing scale of the investments required, and this in turn has led to a round of mergers and acquisitions that have recently increased concentration, first within regions (North America and Europe) then, latterly, at the global level. The different strategies of transnational companies in the sector reflect their varying approaches to these changes, with Latin America playing a different role in each.

In the region, two waves of telecommunications industry FDI can be identified. The first came with the privatization of the dominant basic telephony operators in countries such as Argentina, Chile, Mexico, Peru and Venezuela. The few European companies that entered the region at this stage (Telefónica de España and

110 Merrill Lynch suggested the same thing in its October 2000 report on Telmex.

Telecom Italia were particularly active) started out in fixed-line telephony then expanded their presence in three ways: by entering other segments (mobile, Internet, data); by taking full ownership of local affiliates that they did not already control outright; and by moving into other markets, particularly Brazil. These firms, which are second-ranking by world standards, have a very substantial part of their international systems in Latin America. The second FDI wave may have begun because of the stances taken by globalizing companies. Vodafone's entry into the Verizon Wireless venture (with the recently merged Bell Atlantic and GTE) seems to give a certain logic to GTE's holdings in Latin America (which work with CDMA technology), considering Vodafone's involvement with Iusacell (Mexico), a mobile telephony company controlled by Verizon. Another globalizing strategy that includes Latin America is the one being pursued by SBC Communications in partnership with Telmex (América Móvil) and Bell Canada International. These companies created Telecom Americas for the very purpose of integrating their Latin American platforms, especially in mobile telephony, on the basis of TDMA technology. Having unified their cellular mobile communications assets in the United States, SBC and BellSouth could go on to pool their networks in the region, where the latter has a large digital footprint in mobile telephony. All this suggests that the Latin American countries may have another opportunity to channel telecommunications sector FDI towards objectives that accord with their own national priorities.

Latin America's experience with the first wave of telecommunications industry FDI was not wholly positive. The priorities of the time —to maximize the privatization value of State assets or to support a national champion— were not calculated to unlock the full potential of the sector. In exchange for investing to expand national networks, buyers enjoyed long exclusivity periods during which they received monopoly rents from basic telephony. In most countries, the national authorities were inexperienced and had no clear vision for the future of telecommunications, there was no telecommunications act to provide a regulatory framework, and independent regulatory institutions had yet to be created, all of which meant that the results achieved fell short of the potential. A new wave of telecommunications FDI would give the region's countries a further opportunity to try to reconcile the objectives of globalizing business strategies more effectively with their own mobile telephony policies. For these countries, this new opportunity represents a regulatory challenge.

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