

Employment Strategy Papers

The FDI – employment link in a globalizing world: The case of Argentina, Brazil and Mexico

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Employment Analysis Unit
Employment Strategy Department

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Preface

For many developing countries, attracting foreign direct investment (FDI) has been a key aspect of their outward-oriented development strategy, as investment is considered a crucial element for output growth and employment generation. New trends have reinforced the importance of private investment. As a result of the move towards neo-liberal policies, the role of the State shifted from an active economic player with productive activities to a provider of an environment of doing business and of social risk insurance. Private investment, both domestic and foreign, is viewed as the driving force of the economy.

FDI is seen to complement scarce domestic financial resources. It is also expected to help modernize production by transferring know-how and technology, while increasing domestic productivity and competition and improving international competitiveness. FDI should also facilitate integration into the world market, domestic participation in globalized production patterns, and the creation of forward and backward linkages with the domestic economy. In so doing, it will have a multiplier effect on the whole economy and could thus be a key element in spurring growth. With financial and trade liberalization, it is expected that there will be a reorientation towards the tradable sector and in particular those activities that are based on the comparative advantage for developing or emerging countries, presumably the abundance of low-skilled labour. As a result, the role of private enterprises as investors and contributors to employment has grown in importance. On the negative side, sceptics argue that FDI can adversely affect domestic investment and lead to an increasing dependence on foreign interests, which are difficult to control. In addition, it can lead to uncontrolled competition between countries and even between regions within the same country in terms of offering fiscal incentives to attract investment.

This study will first analyze the evolution of FDI and the increasing role of transnational companies (TNCs) in the domestic economies of Argentina, Brazil and Mexico and will then in a second part outline the motivations and the different forms of FDI. A third part will describe the impact of FDI on employment and wages of different sectors, while part four shows the shift from the State as an economic player towards the private sector as the key player of the economy.

The new outward oriented development strategy of the 1990s and the increased globalization of production worldwide led to a FDI boom in Latin America. The impact of large FDI inflows on employment, however, was to a large extent disappointing, which can mainly be explained by the form of investment. Most investment, in particular in Argentina and Brazil went into already existing companies as a result of privatisation, deregulation and increased M&A, especially in the service sector. FDI in the service and manufacturing sector was often combined with modernization and rationalization measures leading to labour shedding. Nevertheless, FDI contributed, to a certain extent, to the modernization of the economy, a rise in competitiveness and to a better integration of Argentina, Brazil and Mexico into the world economy. Only Mexico experienced strong employment creation due to a strong FDI inflow into the maquiladora industry until 2000. The strong decline of this industry since then shows the fragility of its specialization. Another worrying phenomenon is the negative macroeconomic side effect of FDI inflows. This led to a slight crowding out effect of national investment, in particular affecting SMEs, exchange rate appreciation and to increased external vulnerability.

The study has shown that FDI is not a panacea for economic growth and employment creation. A country needs stable and productive investment inflows to ensure sustainable growth and employment creation. The question is how and to what extent a country can influence or steer investors' decisions to receive investment which promotes production and employment. In an increasingly globalized world a country can influence FDI only to a limited extent. Nevertheless, the State should ensure to consolidate the locational advantage of a country by creating a sound macroeconomic framework and by sustained public investment in physical and human infrastructure. The State could also have a more proactive role in promoting productive investment in promising productive activities and in discouraging volatile short-term investment through a mix of regulations and incentives. A new balance has to be found between foreign and domestic investment, which will also help reduce the external vulnerability.

This Working Paper is a by-product of a comparative study on employment creation in Argentina, Brazil and Mexico, undertaken by the Employment Analysis and Research Unit of the Employment Strategy Department. The objective of this study is to propose recommendations, for submission to the social partners, with respect to the creation of employment in these countries, based on an analysis of four policy areas: macroeconomic policy, trade, industrial and regional policy, labour market policies and social dialogue. The study is part of the implementation of the Global Employment Agenda, the employment arm of Decent Work.

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Contents

	Page
Preface	
Acronyms	
1. Introduction	1
2. General evolution, origins and reasons for FDI	2
2.1 Evolution of FDI flows	2
2.2 The importance of transnational companies	6
2.3 Macroeconomic implications of increased FDI	8
2.4 Reasons for FDI inflows	9
3. Types of FDI inflows	12
3.1 Portfolio versus productive investment	12
3.2 Mergers and acquisitions (M&A) versus greenfield investment	13
4. Sectoral evolution of FDI and its labour market impact	15
4.1 Dominant FDI sectors, output growth and employment	15
4.2 FDI and wages	19
5. Less state, more private initiative: industrial policy and FDI	23
6. Conclusions	26
Notes	29
Bibliography	33
Annex: Tables	
Table 1: Major long-term FDI figures, 1970-2003.....	37
Table 2: FDI stock, 6 major products in Argentina and Brazil	38
Table 3: Number of foreign affiliates and parent corporations	39
Table 4: Evolution of employment in major TNCs, 1991-2002	40
Table 5: Efficiency-seeking, market-seeking and resource-seeking investment in the 1990s	41
Table 6: Labour intensity per country, five lowest and highest labour-intensive Product groups in manufacturing	42

Tables and figures in the document:

Table 1: Origins of FDI inward stock by countries (three top investors), 1990-2002	4
Table 2: Importance of FDI for employment in transnational companies (TNCs), selected countries	7
Table 3: Average share of mergers and acquisitions (M & As) in FDI inflows, 1991-96 and 1997-2002, selected countries (percentages)	13
Table 4: Types of foreign investment and their dimension and importance for employment	14
Table 5: Major services and the primary sector: Sectoral FDI and GDP share in total manufacturing and FDI and employment average annual growth	16
Table 6: Manufacturing sector: Sectoral FDI and GDP share in total manufacturing and FDI and employment average annual growth	18
Table 7: Average wage in a specific product category as a percentage of the average wage earned in total manufacturing (W_i/W_{totman}), 1993-2000	20
Table 8: FDI inflows and their employment and wage impact, by sector, 1993-2000	22
Figure 1: FDI inflows (in current millions of US\$), 1990-2003	2
Figure 2: Inward FDI stock (in current US\$), 1991-2003	3
Figure 3: Investment as a share of GDP, 1990-2003	9
Figure 4: Sectoral distribution of FDI, Argentina (1992-2002), Brazil (1996-2002), Mexico (1994-2002): share of sum values	15

ACRONYMS

CET:	Common External Tariff
CMC	Common Market Council
CPC	Joint Parliamentary Commission
CUFTA:	Canada-USA Free Trade Agreement
DS:	Declining Star
ECLAC:	Economic Commission for Latin America and the Caribbean (CEPAL)
EU:	European Union
FDI:	Foreign Direct Investment
FTA:	Free Trade Agreement
FTAA:	Free Trade Agreement of the Americas
GATT:	General Agreement on Tariffs and Trade
GDP:	Gross Domestic Product
GFCF:	Gross Fixed Capital Formation
GMC:	Grupo Mercado Común
IDB:	Interamerican Development Bank
IMD:	Institute for Management Development
INEGI:	Instituto Nacional de Estadística Geografía e Informática
IRC:	Interhemispheric Resource Center
ISI:	Industrialization by Substitution of Imports
ISIC:	International Standard Industrial Classification
M&A:	Mergers and Acquisitions
Mercosur:	Southern Cone Common Market (Mercosul in Portuguese)
N.A.:	Not available
NAALC:	North American Agreement on Labour Cooperation
NAFTA:	North American Free Trade Agreement
NBER:	National Bureau of Economic Research
NCE:	Not Classified Elsewhere
N.S.:	Not significant
Petrobras:	Petroleo Brasileiro
PITEX:	Programa de Importación Temporal para la Exportación or Temporary Imports for Exports Programme
TELMEX:	Telefonos de Mexico
TNCs:	Transnational Corporations
UNCTAD:	United Nations Conference on Trade and Development
WB:	The World Bank
WTO:	World Trade Organisation
% =	Percentage

1. Introduction

For many developing countries, attracting (FDI) has been a key aspect of their outward-oriented development strategy, as investment is considered a crucial element for output growth and employment generation. New trends have reinforced the importance of private investment. As a result of the move towards neo-liberal policies, the State's role shifted from an active economic player with productive activities to a provider of an environment of doing business and of social risk insurance. Private investment, both domestic and foreign, is viewed as the driving force of the economy.

FDI is seen to complement scarce domestic financial resources. It is also expected to help modernize production by transferring know-how and technology, while increasing domestic productivity and competition and improving international competitiveness. FDI should also facilitate integration into the world market, domestic participation in globalized production patterns, and the creation of forward and backward linkages with the domestic economy. In so doing, it will have a multiplier effect on the whole economy and could thus be a key element in spurring growth. With financial and trade liberalization, it is expected that there will be a reorientation towards the tradable sector and in particular those activities that are based on the comparative advantage for developing or emerging countries, presumably the abundance of low-skilled labour. As a result, the role of private enterprises as investors and contributors to employment has grown in importance. On the negative side, sceptics argue that FDI can adversely affect domestic investment and lead to an increasing dependence on foreign interests, which are difficult to control. In addition, it can lead to uncontrolled competition between countries and even between regions within the same country in terms of offering fiscal incentives to attract investment.

This study will first analyze the evolution of FDI and the role of (TNCs) in the domestic economies of Argentina, Brazil and Mexico and will then outline the motivations and the different forms of FDI. A third part will analyze the impact of FDI on employment and wages of different sectors, while part four describes the shift from the State as an economic player towards the private sector as the key player of the economy.

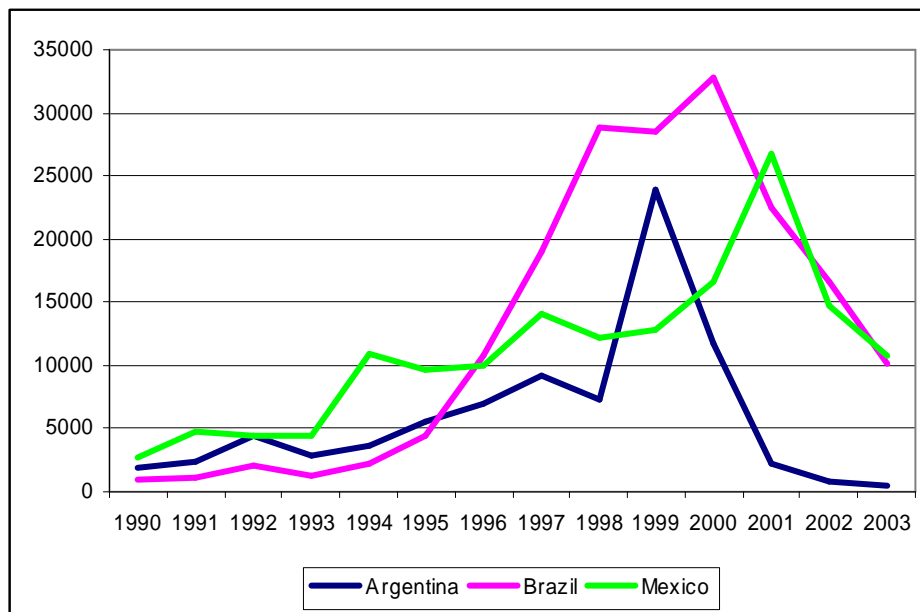
The new outward oriented development strategy of the 1990s led to a FDI boom in Latin America, the impact on employment, however, was to a large extent disappointing, which can mainly be explained by the form of investment. Most investment, in particular in Argentina and Brazil went into already existing companies as a result of privatisation, deregulation and increased M&A, especially in the service sector. FDI in the service and manufacturing sector was often combined with modernization and rationalization measures leading to labour shedding. Nevertheless, FDI contributed, to a certain extent, to the modernization of the economy, a rise in competitiveness and to a better integration into the world economy. Only Mexico experienced strong employment creation due to strong FDI inflow into the maquiladora industry, but only until 2000. Another worrying phenomenon is the negative macroeconomic side effect of FDI inflows, such as a slight crowding out effect of national investment, in particular affecting SMEs, exchange rate appreciation and increased external vulnerability.

2. General evolution, origins and reasons for FDI

2.1. Evolution of FDI flows and stocks

Especially in the later part of the 1990s, FDI boomed in Argentina, Brazil and Mexico, by far the highest recipients of FDI in the region, while the level of FDI and its importance for total investment and GDP was rather low in the 1970s and 1980s (see Annex, Table 1). FDI inflows were significantly higher between 1990 and 2003 than in the 1980s according to recent UNCTAD data: It was four times higher in Mexico, which began trade and financial liberalization earlier, six times higher in Brazil and over 10 times higher in Argentina, which had the most comprehensive privatization programme during the 1990s. Among developing countries, only China received more investment. An increasing, part of FDI inflows came from OECD countries, which traditionally dominated these flows.

Figure 1: FDI inflows (in current millions of US\$), 1990-2003



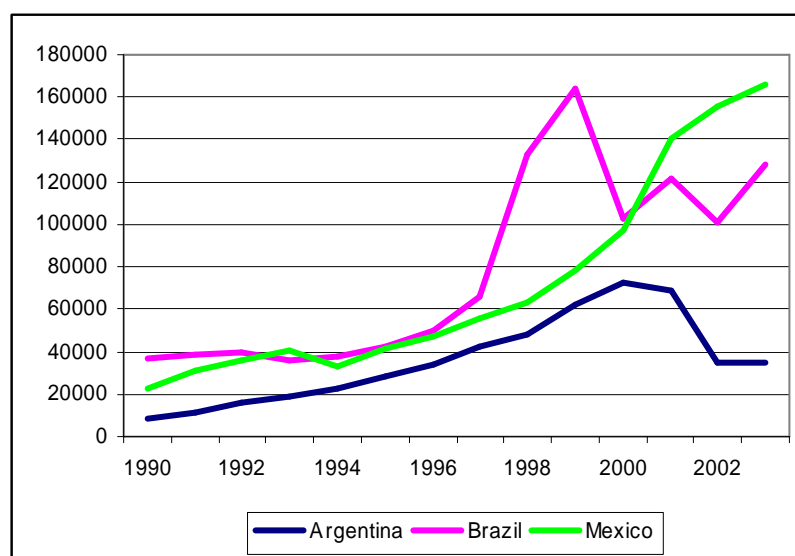
Source: UNCTAD, FDI on-line. <http://stats.unctad.org/fdi/eng/ReportFolders/Rfview/explorerp.asp>

As Figure 1 illustrates, Mexico was the first country to see a significant increase in its FDI inflows: between 1993 and 1994, on the eve of the creation of NAFTA, its FDI increased from US\$ 4 billion to US\$ 11 billion. After a short break, due to the Tequila crisis mainly in 1995, it rose again, but FDI has slowed down since 2000, with the exception of 2001.¹ The lower FDI levels since 2000 can be explained by the recession in the United States, its main investor, the elimination of sectoral incentives and the crisis of the “maquiladora model”, which will be discussed later. (Mattar, Moreno-Brid and Peres, 2002).

Argentina, like Mexico, started to significantly increase its FDI in the early 1990s. Mainly the recovery of internal demand, a comprehensive privatization programme, but also the launch of Mercosur, contributed to the first wave of FDI inflows, from US\$ 1.6 billion in 1989 to US\$ 4.4 billion in 1992, and to a second rise from 1995 to 2000, with a peak in 1999 (US\$ 23.9 billion) due to the purchase of the petroleum company, YPF, by the Spanish company Repsol. The economic crisis which began in 2001 led to a sharp decline in FDI to just US\$ 478 million in 2003. The debt default, the resulting economic recession and a price freeze for specific service sectors led to loan cuts by TNCs. In addition, a few investors left the country (UNCTAD, 2003b).

Brazil, compared with the two other countries, was a late starter with regard to economic reforms, which is also reflected in the timing of FDI inflows. Such inflows only began to take off after the introduction of the *Real* in 1994 and the resulting macroeconomic stabilization (Berg, Ernst, Auer, forthcoming), peaking in 2000 at US\$ 32.8 billion. However, in 2003 they fell sharply to US\$ 10.1 billion. The main reasons for this decline were the world recessions in 2000 and 2001, which also affected Argentina and Mexico, Brazil's poor economic performance, an unstable political and economic environment, the crisis in Argentina and the impending national elections. The decline of FDI in all three countries also represents a normalization of flows, after an exceptional FDI boom as a result of privatization, financial and trade opening.

Figure 2: Inward FDI stock (in current US\$), 1991-2003



Source: UNCTAD, FDI on-line database, <http://stats.unctad.org/fdi/eng/ReportFolders/Rfview/explorerp.asp>

Figure 2 shows the overall trend of inward FDI stocks, ignoring short-term fluctuations. Data on stocks represent the accumulation of foreign investment in the country, while those on flows only show how much new FDI went into the country in the period under analysis. The graph shows a constant increase in stocks in all three countries in the 1990s. Argentina was the big winner, with a stock almost nine times higher in 2000 than in 1990, but then the stock decreased sharply, in part due to the devaluation. In absolute terms, Mexico experienced the most impressive surge in FDI as illustrated in Figure 2, while Brazil also significantly increased its stock by over six times. Brazil, as a late reformer, experienced a remarkable jump in its FDI stock beginning from 1997, then slowed down and regained a strong increase in 2002 and 2003. Mexico had the highest level of FDI stock in 2003 of US\$ 166 billion, closely followed by Brazil (US\$ 128 billion) and Argentina (US\$ 35 billion).

Calculated per capita, Mexico led with US\$ 1.600, followed by Argentina with US\$ 924 and Brazil with US\$ 755 (see also, Annex Table 2 for details on sectoral FDI stock in Argentina and Brazil).

Table 1: Origins of FDI inward stock by countries (three top investors), 1990-2002

	1992			1997			2002		
Argentina	USA 35	France 10	Italy 8	USA 35	Spain 10	Chile 8	USA 28	Spain 26	France 9
	1990			1995			2000		
Brazil	USA 38	Germany 15	Japan 9	USA 26	Germany 14	Switzerland 7	USA 24	Spain 12	Netherlands 11
	1992			1997			2001		
Mexico	USA 78	Germany 12	UK 4	USA 68	Germany 11	UK 6	USA 75	Germany 8	Switzerland 4

Source: UNCTAD, FDI Country Profiles, on-line:

<http://www.unctad.org/Templates/Page.asp?intitemID=1923&lang=1>

In Mexico (Table 1), investment by NAFTA trade partners, especially by the United States, but also Canada, which increased its FDI to Mexico by over five times between 1992 and 2002, was critical. Moreover, Mexico's outward flow of FDI stocks to the United States increased significantly, from a low of US\$ 575 million in 1990 to US\$ 7.9 billion in 2002. Much of this is accounted for by the integration of the Mexican automobile industry into an already deeply integrated North American automotive industry spurred by the creation of NAFTA. European investment is mainly concentrated in automobiles, electronics and electrical products, chemical products, food, beverages and tobacco, and some services such as finance or the retail trade.

In Argentina and Brazil, overall figures show that interregional FDI, mainly from the United States and Europe, is much more important than regional FDI, and that Europe is much more important as an investor in Argentina and Brazil (about 50 per cent) compared to Mexico (15 per cent). Within Europe, the traditional investors in the region, Germany, the UK, the Netherlands, France, Switzerland and Italy are still present in the automobile, machinery & equipment, metal products, chemical products, food sectors but also with some new investment in the service sector.² In this regard, it should be stressed that Spain "recovered" its former regional influence and became the most important European investor, mainly in services, and in particular, in financial services. Nevertheless, there have been some interesting developments within Mercosur, where sectoral agreements have benefited some sectors through a strategy similar to that adopted for the automobile sector (see box below).

The automobile industry

In the 1990s, in all three countries, the automobile industry benefited from a specific industrial policy. Brazil and Argentina had already entered into a sectoral agreement even before the inception of Mercosur, that provided for a system of compensation, which was then extended to all Mercosur countries. The compensation system was strengthened in 1994 through the Protocol of Ouro Preto and slightly revised later. It stipulated the gradual elimination of tariffs among the member countries and the establishment of a common external tariff, and permitted the use of investment incentives. The main purpose was to secure a balanced exchange in the automobile sector between Argentina and Brazil and to provide a certain level of import protection (Bonelli, 2001). The special regime did not, however, provide any specific clause to foster local suppliers. The regional agreement was complemented by special provisions at the national level. Since 1991, Argentina's motor vehicle industry is governed by a special regime which increased the import content to 40 per cent, allowed the import of vehicles for assembly firms if exports exceeded imports, and set an import quota for cars not produced locally. Brazil also designed its own regime in 1995 with similar provisions. Additionally, in 1996, a new regime offered fiscal incentives for Brazil's less developed regions, which resulted in 70 per cent of new investment going to these regions between 1996 and 2001, such as Ford in Bahia (Bonelli, 2001).

These sectoral regulations contributed immensely to attracting foreign investors interested in exploiting the regional market. Argentina, in particular, became more attractive to investors as a result of the enlarged Mercosur market, so that the companies could produce on a much larger scale. As a consequence of the special Mercosur regime, and in line with the new strategies adopted by the existing TNCs, Argentina began to specialize in a small number of upper grade models, while Brazil concentrated on mass production of a lower class of cars. Consequently, there was a spectacular rise in production, by 400 per cent between 1990 and 1994, partly also due to a rise in domestic consumption (Kosacoff, 2000b).

The new interest in the automobile industry also led to deep restructuring related to changes in TNCs' strategies. On the one hand, new trends leaned towards less vertical integration and towards the external provision of parts and accessories. There was also less plant engineering. Assembly of imported components, rather than of locally integrated production, began to characterize the sector (Benavente et al., 1997). On the other hand, the "lean production system generated a closer cooperation with first-tier suppliers and thus led to their technological up-grading" (Posthuma, 2004). TNCs played an active role in this integration process. Intra-industry and, in particular, intra-firm trade became important, and ties between the TNC branches in Argentina and Brazil were strengthened (ECLAC, 2001 and Berg, Ernst, Auer, forthcoming), which resulted in greater imports of car components. In many instances, already existing firms regained control over production in Argentina, and new firms arrived in both countries. Production plants underwent a major rationalization and modernization process, but still faced problems of scale economies; this led them to create new plants conforming to international production standards. In general, the international competitiveness gap was reduced in this sector in terms of the product quality and efficiency levels (Ferraz et al., 2004). The economic crisis and lower consumption in both countries since 1999 led to a fall in production, by 24.5 per cent in Argentina between 1993 and 2000 and by 10.0 per cent in Brazil, and to the transfer of some activities from Argentina to Brazil (see sub-section 4.1.). The restructuring and modernization process increased the productivity of the sector, but it had a negative impact on the labour market. Employment in this medium

labour-intensive sector declined by 10.9 per cent in Argentina and by 11.3 per cent in Brazil, and real wages fell by 48.6 per cent in Argentina and 7.2 per cent in Brazil between 1993 and 2000.

There are many similarities but also important differences between employment development in the sector in Mexico and in Argentina and Brazil. In Mexico, between 1960 and the late 1980s the automobile industry benefited from active and interventionist policies within the framework of its industrialization via import substitution (ISI) strategy, but in the 1990s, policies were more passive and liberal: import quotas for assembly plants were removed, the use of inputs from *maquiladoras* in export models and those destined for the local market were facilitated and FDI in autoparts was promoted. The sectoral policy sought to find convergence with the corporate strategies of the assembly plants. Within NAFTA, tariffs and local content requirements were expected to be reduced to 0 per cent by 2004, but also within its trade agreement with the EU, strong reductions were foreseen. Mexico also signed a new agreement with Brazil to guarantee better access to the Brazilian market and vice versa.

As a result of these policies and easier access to the North American market, Mexico attracted many investors including some from Asia and Europe. According to UNCTAD³, 21.2 per cent of all manufacturing investment went to the automobile sector between 1999 and 2003, and output grew by 50.1 per cent between 1995 and 2000. In the second half of the 1990s, however, there was a stark contrast with the Mercosur countries in terms of the labour market impact. Employment in the Mexican automobile sector rose by 29.3 per cent and real wages by 15.6 per cent between 1996 and 1999. The main reason for this may be found in the higher level of greenfield investments in Mexico and increased exports to the United States market.

In general, strong investment, attracted by the larger regional market and promoted by sectoral policies, has led to the modernization of the industry, higher productivity and competitiveness. It has helped the countries adjust to the conditions of a more open market, but their domestic markets still face problems of scale, quality and price. Even though the market-seeking argument is still relevant for investors, the industry has become more outward oriented, not only in Mexico, which serves as a hub or export platform for sales to North America, but also in Mercosur, where the automobile sector still depends heavily on the economic situation in the region. This industry, which had experienced special and continuous support for decades, has maintained its importance not only for manufacturing, but also for employment and development in general. It also demonstrates that even in a Washington Consensus inspired environment, specific industrial or sectoral policies play an important role in developing the industry and, through this, in Mexico at least during the 1990s, in boosting employment in manufacturing.

2.2. The importance of transnational companies

Transnational Companies (TNCs) are the main providers of FDI and are thus an important source of employment. The transnationality index (TNI)⁴ reveals the importance of TNCs in a domestic economy taking into account the production potential stemming from FDI inflows and the outcome of that investment. Table 2 clearly shows that the three countries have a high TNI compared with other countries. This is especially true for Brazil and Argentina where TNCs are more important than in India, France or even China. Mexico has a lower, but still high TNI, of 11.6 per cent. Nevertheless, the TNCs are not as important for employment in Argentina, Brazil and Mexico as they are in China (UNCTAD data, 2002,

see also, Annex Table 3). However, data for China and India suggest that workers are employed in sectors of higher labour intensity than in the Latin American countries.⁵

Table 2: Importance of FDI for employment in transnational companies (TNCs), selected countries

Countries	TNI	Emp (%)
Argentina	16.6	8.0
Brazil	17.2	5.0
Mexico	11.6	7.0
India	2.9	4.1
China	14.4	9.5
France	9.4	4.2

Note: EMP = Employment share of TNC's employment in total employment. TNI = Transnational Index.

The Transnational Index = TNI was developed by UNCTAD, 2002. The TNI is a composite index of the following elements: (i) FDI inflows as a percentage of gross fixed capital formation (GFCF), average for the period 1997-1999; (ii) inward FDI stock as a percentage of GDP; (iii) value added of foreign affiliates as a percentage of GDP; and (iv) employment of foreign affiliates as a percentage of total employment.

Source: UNCTAD, 2002.

Various studies have observed that TNCs made a rather disappointing contribution to employment creation during the 1990s. Dussel Peters (2000b) has stressed the discrete participation of TNCs in Mexico in terms of employment creation between 1993 and 1998, with a share of 5.7 per cent of national employment. Ramirez (2001) has shown that in Mexico, long-term employment creation in the automobile industry was limited, given that the technology transferred from the parent companies was in the form of capital-intensive, computer-aided manufacturing. Most of the new manufacturing jobs have been created in the *maquiladora* industry. In Argentina, Kulfas, Porta and Ramos (2002) found that TNCs contributed to increased productivity, but at the same time they reduced the number of employees. The number of workers per company fell by 7.9 per cent between 1993 and 1997. The situation is even worse in manufacturing, where average employment declined by 12.7 per cent during the same period. The services sector also had an employment decline of -2.7 per cent.

One main industry of interest in the three countries is automobiles, which was supported during the ISI period, but which continues to play an important role in the outward-oriented development strategy, especially within the framework of regional integration. Data collected by *América economía*⁶, a Latin-American business magazine, show a decline in employment by the traditional automobile manufacturers (Volkswagen, Renault) in all three countries, but an increase in employment by the newcomers (Ford in Argentina, Nissan in Mexico, Renault in Brazil) that set up new production plants. However, the data confirm an overall decline in employment in this industry. The exception is Mexico, where the traditional automobile companies reduced their workforce, but because of outsourcing of some segments of the production process and the arrival of newcomers, overall employment in this sector grew.

The entry of foreign firms into retail trade has been accompanied by a constant and significant rise in employment. Employment in leading companies more than doubled in Argentina and Brazil, increasing considerably more than the average in the sector (9.5 per cent in Argentina and 3.3 per cent in Brazil). This phenomenon can be explained to a large extent by the crowding-out effect of FDI in this activity, with big supermarkets causing the disappearance of many small shops. Concerning chemical products, an analysis of employment data of major TNCs confirms the relatively positive employment impact compared with total manufacturing in Argentina and, to a lesser extent, Brazil.⁷ The figures are relatively less favourable for Mexico. TNCs involved in computers and, in particular, electronics, created significant employment in Mexico during the 1990s, but figures for 2000 demonstrate a declining trend in all the companies examined, with the exception of General Electronics. Major food and beverage TNCs, located in the low-wage category, had a limited, but positive, employment impact, with the exception of the Coca-Cola Company in Brazil. In general, it is a sector that did not show great dynamism during the 1990s, even though TNCs performed slightly above average in terms of employment.

2.3. Macroeconomic implications of increased FDI

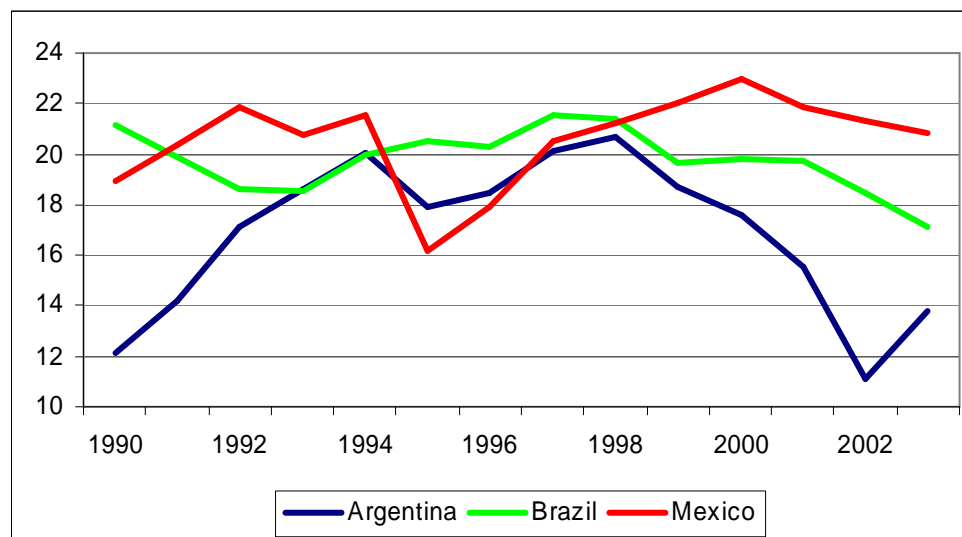
As there was a strong increase in FDI during the 1990s, one important question is whether foreign investment crowded out domestic investment. If it has no impact whatsoever, any increase in FDI should be reflected in a rise in total investment. If FDI crowds out investment by domestic companies, the rise in investment should be smaller than the rise in FDI. Recent studies from J. Weeks (2000) and M. Agosin (2000) show that in Asia, the least liberal towards FDI among developing countries, is the region with the strongest crowding-in effect, while Latin America with the most far-reaching liberalization of FDI rules in the 1990s, does not benefit from crowding-in effects. Looking closer at Argentina, Brazil and Mexico, the studies show a slightly more positive picture than for the whole region, meaning a neutral effect or slight crowding-out effect for the 1990s (also see M. Kulfas, 2002 and D. Ibarra, 2004).

In general, investment in Latin America was less efficient in terms of stimulating growth in the 1990s than in the 1970s. Credit rationing associated with monetary restraints fostered the crowding out of domestic investment by foreign investment (J. Weeks, 2000), which shows the importance of monetary and fiscal policy. Small- and medium-sized enterprises were the most hit by lack of access to credit, also due to a largely dysfunctional banking system (L. Zarsky, 2004), but also by the appreciation of the exchange rate, a result of strong FDI inflow, which influenced negatively their international competitiveness.

An explanation of increased crowding out is that an investment rate of 21.2 per cent of GDP would have been needed to achieve the same growth stimulus than the 20.2 per cent rate achieved in the 1970s. Another proof of the crowding-out effect is that despite the large surge of foreign financing, overall domestic investment did not increase in the 1990s. In Argentina, domestic investment averaged 17 per cent of GDP during 1990-2001, in Brazil and Mexico it was slightly higher at 20 per cent of GDP (see Figure 3). In contrast, in East Asia during the 1970s and 1980s, investment-to-GDP ratios exceeded 30 per cent of GDP, resulting in sustained high growth rates.⁸ In order for investment to be beneficial for development it must not just be high, but be continued. Typically, investment-to-GDP ratios should be in the 25 per cent range for middle-income developing countries for an extended time period, five years at minimum (UNCTAD, 2003). Another drawback to the surge in capital inflows was that domestic investment was volatile and became strongly correlated with FDI. This was especially true in Argentina, where fluctuations in foreign participation in investment and total investment-to-GDP had an astoundingly high correlation of 90 per cent during 1990-

2001. In Brazil and Mexico the relationship was strong, but not as dramatic, with correlations of nearly 60 per cent in both countries. The high sensitivity to fluctuations in foreign investment is another evidence of a crowding out of national investment during this period.

Figure 3: Investment as a share of GDP, 1990-2003



Note: Gross Fixed Capital Formation is used as a proxy for domestic investment.

Source: World Bank, World Development Indicators.

Many economists and decision-makers believed that the opening up of a country to international investment and trade would automatically improve growth performance, but the Latin American reality proved the opposite. Policies are important for stimulating growth and the deregulation path to openness was not equally appropriate for all countries.

2.4. Reasons for FDI inflows

In order to understand the link between FDI and employment, it is crucial to understand what attracts FDI to a country. The economic determinants of FDI have been classified by standard FDI theories as market-, resource- and efficiency-seeking. The main considerations of market-seeking investors are market size and per capita income, market growth potential, including access to regional and global markets, country-specific consumer preferences; and the structure of the markets. Generally, market seeking investment is *horizontal*. It means that a large part of the production chains is based within the country implying important backward and forward linkages and technological spillovers. The local plant only delivers its products to the local market. *Market-seeking* FDI is still the dominant form in Argentina, Brazil and Mexico.⁹ Economic recovery through macroeconomic stabilization and the potential offered by an enlarged regional market have fostered FDI in manufacturing, especially in automobiles in Mercosur countries, in chemicals in Brazil, and in food, beverages and tobacco in all three countries. New opportunities in services as a result of deregulation and privatization were also responsible for large FDI flows to finance, retail trade, telecommunications and, to a certain extent, utilities (UNCTAD, 2004; ECLAC, 2002). In general, market-seeking TNCs also contributed to an increase in intraregional intra-firm trade.¹⁰ Market-seeking investment can be found in industries of different labour intensity, but the majority of them are of medium labour intensity, such as automobile production in the Mercosur countries.

Resource-seeking investors' are mainly attracted by the availability of cheap raw materials. This form of investment has been significant only in Argentina where it is largely in petroleum, gas and minerals (ECLAC, 2001 and see Annex, Table 5), sectors of low labour intensity and thus making a limited contribution to job creation. These TNCs contributed to export growth, and since they imported few products, they had a positive impact on the balance of payments (Chudnovsky and López, 2002).

Efficiency-seeking investors' main concern is the cost of labour or environmental resources and assets, adjusted for productivity, or other input costs such as transport and communications. This form of investment (as well as resource-seeking investment) is in general *vertical*. It means that the parent company locates each stage of production in different countries and regions where it can benefit from differences in factors costs. The production plant primarily produces for the world market or the market of origin of the investor. This has been observed on a large scale only in Mexican manufacturing, mainly in automobiles and autoparts, electronics, and confection, which generated significant employment during the 1990s due to high levels of investment. United States, Japanese and EU investors were motivated mainly by an efficiency-seeking strategy aimed at drawing benefits from cheap and appropriately qualified labour and the modernization of production processes to assemble various goods for United States and Canadian markets (ECLAC, 2002). Rather than applying exclusively one of these strategies, firms usually combine them and, as the process is dynamic, a market-seeking FDI might in fact become later an efficiency-seeking FDI.

Different strategies have different implications for employment. On the one hand, previous periods have shown that locational advantage is very important for market-seeking FDI, attracting investment flows even under difficult economic and political conditions. This type of investor generally has a particularly strong interest in the efficient functioning of the internal market, including the labour market. Growth of employment and real wages is important in contributing to an increase in internal demand, which implies that the foreign producer finds a growing number of domestic consumers of goods produced for the host-country market. On the other hand, resource- or efficiency-seeking investments aim at tapping the best resources the country has to offer with a view to export goods and services, or with the aim to integrate some production processes into the investor's international production chain. The competitiveness of the exported products, the exchange rate and external demand are of major interest to this kind of investor.

A new favourable, rules-based investment framework or fiscal incentives were sometimes a strong argument for attracting FDI inflows in the early stages (i.e. for the first two to three years after the change in rules) (Christiansen et al., 2003). However, this is certainly not a sufficient condition to ensure constant and high FDI inflows. Often, high labour costs are believed to be a strong disincentive for foreign investment inflows. However, in major international indicators¹¹ that measure the investment attractiveness of a country, absolute labour costs do not appear to be a major variable.¹² In general, they seem to be a minor consideration in investment decisions. Nevertheless, they may be a stronger consideration in specific industries, where labour costs are a major share of production costs. However, the evolution of labour costs does not depend on the labour market alone, but also on other variables (e.g. exchange rate appreciation). Since 2000, Mexico, for example, has seen a strong outflow of *maquiladora* investment in low-end products such as the garment industry to countries with lower costs, which resulted in job losses of 20 per cent in this industry between 2000 and 2004 (Lapper, 2004).

Deregulation and privatization of State-owned enterprises

One of the important drivers of FDI was the privatization of economic assets that were formerly owned and managed by the State. The privatization of State-owned enterprises (SOEs) was expected to reduce the role of the State and in the belief that this would improve the efficiency of the companies concerned. Privatization was mainly concentrated in public utilities (electricity, gas, water, transport), energy (petroleum, natural gas, mining), telecommunications and banking (ECLAC, 2001; IADB, 2002b). Major foreign investors were from Europe, in particular Spain, and the United States (Anuatti-Neto et al., 2003). Privatization was supposed to have a multiplier effect and hence attract investments in other sectors of the economy.

Mexico began divesting government holdings through privatization in the 1980s, with major efforts beginning in 1987, while in Argentina, the bulk of sales of State-run enterprises began in 1992 after the introduction of the Convertibility Plan. (Correa, 2001; Kosacoff, 2000b). When privatization slowed down in Argentina and Mexico by the second half of the 1990s, Brazil's privatization initiative expanded considerably. It overtook Mexico as the largest recipient of FDI in the region between 1999 and 2002¹³, propelled mainly by deregulation with respect to privatization. Between 1998 and 2000 privatization in Brazil accounted for about 20 per cent of its total FDI¹⁴ (UNCTAD, 2001). By 2002, the privatization boom had largely ended leaving the three countries with few assets left to sell.¹⁵

While major privatizations have already been completed, their impact on the economy and on public opinion are still being felt in all three countries. Public opinion polls reveal that an average of 63 per cent of Latin Americans feel their countries have not benefited from privatization (Lora and Panizza, 2002). A major reason for this is that in many cases employment suffered. Operational efficiency output and industrial productivity, however, increased in some cases providing higher profits for the investors (IADB, 2002b; Katz, 2000b). In Argentina, the privatization of the national telecommunications company led to job losses affecting 15,000 workers. In Mexico, on the other hand, the transfer of telecommunications from the public to the private sector was arranged under a framework agreement that guaranteed the protection of the workforce, which was the result of an effective social dialogue in this sector. Different labour market institutions thus had different outcomes for labour in the two countries, which clearly illustrates the importance of the institutional aspect (Katz, 2000a). But even the preparations for privatization through rationalization and modernization measures led to job losses, as in the case of YPF, which reduced its workforce from 50,000 in 1989 to 12,000 in 1992 (Ernst, 1996). Another negative and unexpected effect of privatization was that instead of abolishing State monopolies, these were often just replaced by private ones, or at least by private oligopolies, often without a significant increase in efficiency. As a result, in some sectors, such as telecommunications in Argentina, service quality has generally improved, but prices have increased causing further problems for impoverished workers (IADB, 2002a). But also in some cases, FDI in utilities failed to meet agreed standards (UNCTAD, 2004). Moreover, the expected technological transfer to national companies within the framework of privatization was rather disappointing (Gerchunoff, Gerko and Bondorevsky, 2003).

Nevertheless, developing countries play a rather passive role in the distribution of international financial resources; access to these resources is largely determined by exogenous factors. FDI was attracted to Mexico for reasons related to the economic conditions of the United States rather than the Mexican economy (Palma, 2003). Investment flows increased significantly during the 1990s because of a favourable international environment, but from 2000 onward, the recession in major source countries of FDI had a reverse effect. Second, general trust in developing countries is crucial. The second half of the 1990s saw other developing and emerging countries suffer from the contagion effects of financial crises originating in Mexico, South-East Asia and the Russian Federation. Third, the three countries are in competition mainly with other developing countries such as China, especially for efficiency-seeking FDI. Sound domestic policies often contribute, but are not sufficient, to attract FDI (Baumann, 1998; 2001).

Generally, it is not just one element alone that leads to the increase or decline of FDI inflows; it is normally a combination of various factors. And last, but not least, companies have strategic reasons to invest in a country. They might adopt an aggressive strategy to compete against a rival company, in order to capture an important share of the market because the market is strategic and has a high growth potential, or they might use a defensive strategy to defend their market share in the economy where they have invested, sometimes even at high costs in the short run. Often, the mere announcement of a regional trade agreement leads to an increase in FDI in anticipation of an enlarged market and more favourable trading prospects (Lederman et al., 2003), even before the actual implementation of the agreement.

In brief, FDI flows remained mainly market-seeking, although efficiency-seeking considerations have been gaining ground, especially in Mexico. In all three countries, privatization, economic recovery and enlarged regional markets were the major internal attractions for FDI. While FDI contributes to development and better integration into the world market, external factors, which cannot be influenced by the three countries, also played a significant role. The greater dependence on external financing and the lack of influence on investment decisions increases the external vulnerability.

3. Types of FDI inflows

3.1. Portfolio versus productive investment

Portfolio investment flows are mainly short-term flows, responsive to international differences in interest rates and exchange rates. A high level of portfolio investment does not directly lead to the generation of new productive assets and thus to job creation. It is often guided by a speculative logic that is attracted mainly by the prospect of short-term gains, and not necessarily by economic fundamentals. Portfolio investment helps countries increase capital in their respective economies and may thus provide additional financial resources for economic activities. However, for employment growth it is more interesting to receive investment directly related to productive activities that may lead to the creation of new jobs. In Brazil, up to 1994, when the Real Plan was introduced, portfolio investment constituted almost 60 per cent of all foreign investment. As a result of effective inflation control, and of an increased interest in productive investment, the share of portfolio investment in total investment then declined to 10 per cent, and even to negative figures in 1998, whereas FDI increased considerably in the second half of the 1990s (Baumann, 2001; Baer and Rangel, 2001). In Argentina, portfolio investment reached a peak between 1992 and 1994 followed by a sharp decline (Petrocella and Lousteau, 2001).

In Mexico, short-term capital flows represented 93 per cent of all capital inflows in 1993. But they collapsed in 1995 as a consequence of the Tequila crisis (Mattar et al., 2002; Lederman et al., 2003). Since then, portfolio investment has never reached the levels of the early 1990s. All three countries saw large inflows of portfolio investments when investors had the most to gain from arbitrage on interest and exchange rate differences. These speculative activities, which gained in importance in the region as a result of globalization of the financial markets, contributed to destabilizing these economies rather than building up productive assets.

3.2. Mergers and acquisitions (M&A) versus greenfield investment

Greenfield investment concerns investment that goes mainly into new production facilities and installations, which may imply significant job creation. M&As, on the other hand, involve two or more already existing firms being regrouped into one firm, which is not prone to creating new employment. Indeed, M&As often involve rationalization measures leading to job losses. These forms are rarely perfect substitutes, but in developing countries with a more advanced industrial sector, the acquisition of a local firm can represent, to a certain extent, a realistic alternative to greenfield investment (Agosin and Mayer, 2000).

Table 3 shows that foreign participation in M&As increased at a higher rate in these three countries than in other developing countries. M&As were frequent in Argentina (82.3 per cent of total FDI in 1997-2002), and also in Brazil (58.5 per cent). In both countries, M&As have been the main source of FDI growth (Chudnovsky and López, 2002; Ferraz et al., 2004). Mexico with 42.6 per cent, had a significantly lower level of M&As in total FDI than the other two countries.¹⁶ Nevertheless, even in Mexico the percentage was higher than that of India and remarkably higher than China, which attracted a much higher share of greenfield investments than M&As.

Table 3: Average share of mergers and acquisitions (M & As) in FDI inflows, 1991-96 and 1997-2002, selected countries (percentages)

M & As/FDI inflows	1991-96	1997-2002
Argentina	38.9	82.3
Brazil	44.1	58.5
Mexico	15.6	42.6
China	2.6	4.4
India	15.3	39.1
Developing countries	17.4	34.5
	17.4	

Source: UNCTAD, 2000b.

The reasons behind the large number of M&As were, besides the relaxation of regulations relating to foreign portfolio investment and direct investment as well as the privatization of state assets in Argentina and Brazil, and to a lesser extent in Mexico (UNCTAD, 2000b; Garrido, 2001). It helped foreign firms gain market access and improve market concentration (market-seeking argument), in particular in attractive services, such as telecommunications, power generation, trade and financial services (Baumann, 1998; Mattar et al., 2002; Bonelli, 2001; Garrido, 2001). Moreover, foreign firms were actively involved in M&As in automobiles and electronics. Among the 10 largest privatization deals involving foreign firms worldwide, two took place in Argentina, the petroleum company YPF and Argentina airports, two in Brazil, Telebras and Telesp (UNCTAD, 2000b). M&As increase in frequency in relation to the level of development of a country and are highest in the industrialized world. Since Argentina, Brazil and Mexico are generally considered to be among the more industrialized of the developing countries (so-called emerging or middle-income countries), this would also explain the wave of M&As they experienced. The M&As were often part of a strategy to modernize and rationalize existing productive structures such as in the automobile industry or in the banking system.¹⁷ Moreover, given the slow growth environment, investors were not inclined to add new productive capacities.

Table 4: Types of foreign investment and their dimension and importance for employment

Investment	Importance of investment for employment	Importance of FI inflows		
		Argentina	Brazil	Mexico
Portfolio FDI	Insignificant	Medium	Medium	Medium
Privatization	Medium	High	High	High
Horizontal investment	Mixed	High	Medium	Insignificant
Vertical investment	High	High	High	Medium
M & As	Medium	Insignificant	Insignificant	High
Greenfield investment	Mixed	High	High	Medium
Resource-seeking	High	Medium	Medium	High
Market-seeking	Insignificant	High	Insignificant	Insignificant
Efficiency-seeking	Medium	High	High	High
	Medium-high	Insignificant	Insignificant	High

Note: Importance of investment for employment. Importance of this type of investment for the creation of new employment.

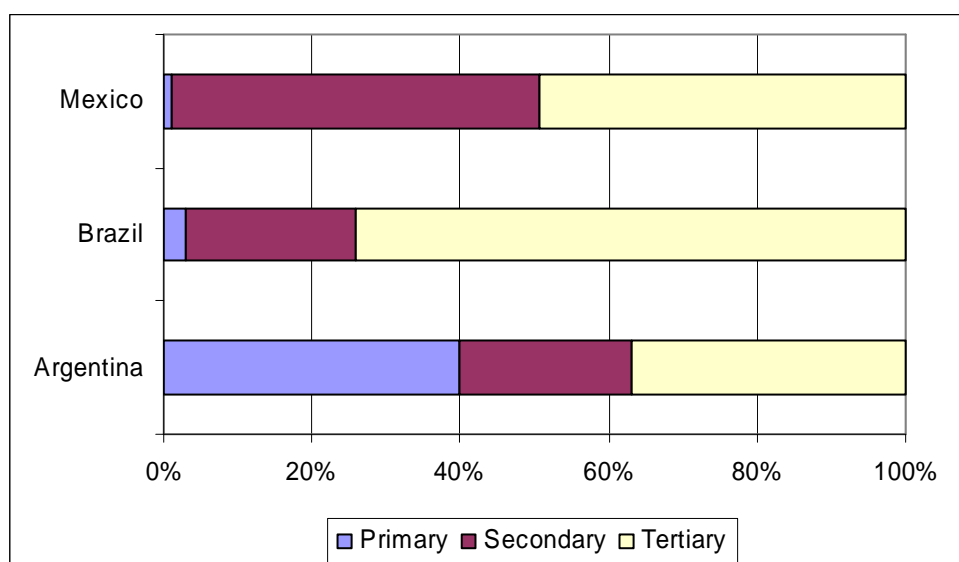
The general assumption that high levels of FDI will lead to a strong increase in production and employment is misleading. It is not the level of FDI that matters, but the kind of FDI (see Table 4). Only strong vertical greenfield FDI in the maquiladora sector created significantly new production plants and employment. However it did not have a multiplier effect on the rest of the economy. Major FDI flows did not lead to the establishment of new production units; rather, they merely resulted in a change of ownership through privatization and M&As. Rationalization and modernization measures were often the consequence, or sometimes a preliminary step prior to a change of ownership, which resulted in job losses, but also, and in general, to a rise in competitiveness. Market-seeking investment is still an important motive for FDI in all three economies, but it did not help create much employment in the 1990s, mainly because of rationalization measures in capital-intensive and some service activities. However, recent reforms could place these industries in a better position for future development and for exporting outside the region.

4. Sectoral evolution of FDI and its labour market impact

4.1. Dominant FDI sectors, output growth and employment

A major concern for a host country should not just be the volume of FDI it may receive, but in which sectors it enters and what benefits it brings to the domestic economy in terms of employment and wages. FDI inflows during the 1990s are compared with output and employment growth, wage growth and the labour intensity of specific sectors. Labour intensity of economic growth is simply defined as employment growth divided by output growth.¹⁸ In Brazil, for example, aircraft manufacturing has the lowest employment-output coefficient, while ship repairing has the highest (see Annex, Table 6).

Figure 4: Sectoral distribution of FDI, Argentina (1992-2002), Brazil (1996-2002), Mexico (1994-2002): share of sum values



Source: UNCTAD, *FDI Country Profiles* (<http://www.unctad.org/Templates/Page.asp?intItemID=1923&lang=1>)

Figure 4 illustrates sectoral distribution of FDI since the 1990s. It shows that Argentina is the only country with sizeable investments in **primary resources**, with a share of 37 per cent of accumulated FDI flows in 1990-2002 and an increase of FDI inflows of over 900 per cent between 1993 and 2000.¹⁹ This is mainly due to the creation of a special regime for that sector (Petrocella and Lousteau, 2001), its deregulation and privatization, and recent oil discoveries.

In Argentina and Brazil, the largest share of FDI went to services, not because FDI in manufacturing declined, it also saw a boom, but because services FDI increased more rapidly²⁰, mainly as a result of deregulation and the privatization of State-run companies.²¹ In Brazil, for example, FDI stock in manufacturing actually rose by 35 per cent, but its relative importance for the economy declined due to the huge increase in services investment. Nevertheless, since 2002, the share of manufacturing FDI started to rise again (UNCTAD, 2004). In Mexico, the secondary sector is still the most important, but only slightly, in terms of FDI flows, with a share of 50 per cent (compared with the tertiary sector's share of 49 per cent). However, despite the success of assembly plants in the second half of the 1990s, the share of investment in manufacturing has been slowing down slightly.

Table 5 compares the evolution of FDI growth and its share in total FDI in the primary and tertiary sectors with the evolution of GDP share and employment in those sectors. It again reveals that only Argentina received sizeable investments in a specific primary sector (i.e. mining). Nevertheless, this sector lost its importance for total GDP, and employment declined by 5.4 per cent.

Table 5: Major services and the primary sector: Sectoral FDI and GDP share in total manufacturing and FDI and employment average annual growth

	FDI	FDI Share		GDP Share		Employment
	Growth	1993	2000	1980	2000	1990s
Argentina	1992-2000					
Mining	243.2	17	26.1	2.3	1.8	-5.4
Electricity, gas and water	81.9	17.4	11.7	1.8	2.7	1.2
Trade	115.5	2.8	4.3	16.5	15.5	9.5
Transport and communication	139.8	11.2	10.3	4.5	8.5	8.3
Finance	51	9.4	7.5	15.1	21	13.2
Brazil	1996-2000					
Electricity, gas and water	28.8	0	7	2.6	3.2	-2.2
Trade	42.8	3.3	9.9	9.6	6.6	3.3
Transport and communication	114.5	0.3	18.7	5.8	4.9	1.5
Finance	148.2	24.8	18.2	19.9	16.3	-3.5
Mexico	1994-2000					
Trade	28.8	8.3	4.7	20.5	19.8	7.2
Transport and communication	-7.5	4.8	10.9	8.3	10.7	7.3
Finance	178.5	4.8	16.7	12.8	14.8	1.1

Note: Data from 1994 to 2000 were taken into consideration for transport and communication in Argentina, as data from 1992 to 1994 were very low and erratic.

Source: GDP: ECLAC, *Statistical Yearbook 2002*, FDI: UNCTAD, FDI database, (<http://www.unctad.org/Templates/Page.asp?intItemID=1923&lang=1>), Employment: IDB data are based on household surveys.

The surge of FDI in the **services sector**²² can be explained to a large extent by the opening up of the capital market and liberalization of the investment regime, and thus to an increase in trade and financial services.²³ Asset restructuring and investment in the banking sector also contributed to the sharp rise of FDI inflows in specific years during this period.²⁴ The employment impact resulting from strong FDI inflows is quite different among the three countries. While employment in the **financial sector** increased significantly in Argentina (13.2 per cent)²⁵ and only slightly in Mexico (1.1 per cent), it declined in Brazil (-3.5 per cent) during this period. In general, employment growth was much lower than the rise in FDI inflows would suggest. This sector experienced a large number of M&As instead of greenfield investments. Moreover, bank restructuring also led to rationalization measures that resulted in labour shedding. Major FDI inflows to Argentina and Brazil, as in Mexico in the 1980s, went to **utilities** (electricity, gas and water) as a result of the privatization of State-run companies.²⁶ These sectors traditionally are of low labour intensity, and this was exacerbated by rationalization measures.

Another important service sector that saw strong FDI inflows during the 1990s was **transport and communications**, mainly due to deregulation and privatization of transport as well as communications and the boom in mobile phones. TNCs in particular were attracted by the market size of these countries. This strong increase in FDI and production had a positive effect, but did not trigger a concomitant increase in employment, which grew by 8.3 per cent in Argentina, 7.3 per cent in Mexico and only 1.5 per cent in Brazil. Nevertheless, in general FDI contributed to reducing communication costs (Larraín, 2003) and improving efficiency, which had a positive impact on the economy as a whole. In Mexico, the share of this sector for the economy increased to 10.7 per cent in 2000, while FDI inflows fell, from US\$ 719 million in 1993 to US\$ 278 million in 1999, as foreign firms had entered the Mexican market earlier. Employment growth was about the same level as that of Argentina, and above the national average, as shown in Table 3.

Another service activity that attracted major FDI inflows was the **wholesale and retail trade**, which includes hotels and restaurants. Even though its share in GDP declined in these countries it saw significant employment growth. In Mexico, FDI inflows between 1994 and 2000 rose by 74 per cent; trade was the fourth major investment sector and hotels and restaurants the fifth in 1994. In Brazil, the share of trade increased from 3.3 per cent in 1993 to 9.9 per cent in 2000, and in Argentina from 2.8 per cent to 4.3 per cent during the same period. However, its importance for the economy declined in all three countries.²⁷ Its employment impact was fairly positive in Mexico and Argentina, but disappointing in Brazil. It should be noted in this regard that the relatively positive figures are overestimates, as the figures are for the whole sector and includes informal workers whose share increased in Brazil and Mexico.²⁸

Even though these countries experienced a surge in services FDI, there are also a large number of **manufacturing** activities that benefited from FDI inflows as shown in Table 6. Despite less FDI in manufacturing, in particular in Mercosur countries, the focus of FDI has not changed much. Many industries that traditionally benefited from FDI continued to be the major recipients, even though their overall share declined slightly. The **automobile industry** is a major ISI industry that still benefits from high investment.²⁹ TNCs already present in the country increased their investments, while new opportunities in the region attracted newcomers (see 2.1.). Nevertheless, only Mexico experienced positive employment growth.

Table 6: Manufacturing sector: Sectoral FDI and GDP share in total manufacturing and FDI and employment average annual growth

	FDI growth FDI share		Output growth		Employment
	1993-2000	2000	1980-90	1990-99	1993-1999
Argentina					
Food, beverages and tobacco	40.8	29.1	0.4	4.4	1.1
Chemicals and chemical products	98.6	28.8	0.8	4.0	1.9
Motor vehicles & other transport equipment	295.3	15.9	-8.9	4.8	-24.5
<i>Total manufacturing</i>	<i>73.3</i>	<i>100.0</i>	<i>-2.1</i>	<i>3.5</i>	<i>-4.2</i>
Brazil	1996-99	1980	1980-90	1990-99	1996-1999
Food, beverages and tobacco	222.9	15.4	3.6	1.2	-7.3
Chemicals and chemical products	473.0	17.4	1.1	-0.4	0.3
Machinery and equipment	-51.4	9.6	-2.1	1.2	-6.9
Electrical and electronic equipment	1361.8	9.8	1.2	2.5	-11.0
Motor vehicles and other transport equipment	557.3	18.3	3.1	-3.1	-10.0
<i>Total manufacturing</i>	<i>302.4</i>	<i>100.0</i>	<i>1.9</i>	<i>0.0</i>	<i>-2.7</i>
Mexico	1994-2000	1980	1980-90	1990-99	1994-2000
Food, beverages and tobacco	-34.2	7.7	2.2	3.5	2.8
Chemicals and chemical products	103.1	8.5	4.7	2.1	1.0
Motor vehicles and other transport equipment	N.A.	N.A.	2.6	6.5	20.2
Electrical and electronic equipment	N.A.	N.A.	2.4	6.8	21.6
Machinery and equipment	114.8	12.6	0.8	4.9	12.7
Other manufacturing	315.1	3.0	1.9	2.0	-0.9
<i>Total manufacturing</i>	<i>43.3</i>	<i>100.0</i>	<i>2.1</i>	<i>4.0</i>	<i>6.1</i>

Note: FDI in Mexico: Motor vehicles and other transport equipment; electrical and electronic equipment are part of machinery and equipment in UNCTAD FDI data.

Source: FDI: UNCTAD, FDI database (<http://www.unctad.org/Templates/Page.asp?intItemID=1923&lang=1>); GDP: ECLAC, PADI database; Employment: UNIDO.

Chemicals and chemical products experienced good FDI inflow, but had a declining, but still high share of FDI in Argentina and Brazil, and a low but rising share in Mexico as shown in Table 6. Mexico succeeded in responding to increased demand for high quality and low-cost products such as synthetic nylon fibres, gelatine capsules or washing preparations (Moreno-Fontes, 2004). Investors aimed to exploit the internal market in segments of mass consumption (Kulfas, Porta and Ramos, 2002), in particular in Argentina, which experienced an above average output growth rate. The growth rate of employment was very low, but slightly positive, despite major rationalization measures with regard to production and personnel: in Argentina (1.9 per cent), Mexico (1.0 per cent, but below average) and Brazil (0.3 per cent). The above-average labour intensity of this category³⁰ may have contributed to this favourable result. The **food, beverages and tobacco** sector attracted strong FDI inflows in particular in Brazil, but also in Argentina and Mexico, which benefits from the strong comparative advantage of its agriculture, in particular in the Mercosur countries. This category also shows strong potential for exploitation of its regional market. It has an above-average growth rate and an increasing share in GDP in Argentina, and to a less extent in Brazil, whose output increased only slightly, but above the average of the manufacturing sector. However, FDI experienced a negative trend in Mexico, a net importer in this sector, as it does not benefit from the same comparative advantage as in the other two countries. The labour intensity in this sector is in general low to medium.³¹ While it created employment in Argentina, in Brazil it experienced strong job losses (-7.3 per cent) higher than the overall average job losses for the country.

In general, FDI in manufacturing went predominantly to Brazil and Mexico, but the employment effects were quite different. In **electrical and electronic equipment** there was a

strong increase in FDI³² in Mexico for the period under analysis and above-average growth. While employment steadily increased in Mexico (21.6 per cent) due to greenfield investments in *maquiladoras*, it declined by 11 per cent in Brazil, which also experienced strong average annual FDI growth of 115.7 per cent. This category has both low (e.g. electrical motors) and high labour-intensive products (insulated cable and wire). The same is true for **machinery and equipment**, but to a lesser extent; it saw a strong rise in FDI, output and employment in Mexico, and high FDI inflows, but a production and employment decline in Brazil.

The concentration of investment in manufacturing has remained the same since 1977 (during the ISI period) with some slight changes. More than a decade of reforms has not significantly changed the composition of manufacturing activity. Nevertheless, there has been some shift from a domestic to an export orientation for the same industries (Blomström and Kokko, 1997). It is interesting to note that FDI concentration in the five major products increased significantly between 1993 and 2000 (from 48.6 to 83.5 per cent) in Mexico and remained at a high level, while it fell in Argentina from a high level (from 97.4 to 78.7 per cent) and remained constant in Brazil (59.8 to 60.1 per cent).

FDI favoured the services sector in the 1990s, but created little employment, because of the nature of the sector and because of rationalization measures, particularly in privatized State-run companies and banks. FDI in manufacturing did not create employment, it may even have reduced it in Argentina and Brazil, especially in transport equipment, but there was strong growth in productivity. Mexico experienced positive FDI and employment growth in manufacturing, mainly due to a boom in the *maquiladoras* in the 1990s, but FDI has been declining constantly and significantly since 2000, as has employment. Industries formerly promoted during the ISI period and benefiting from sectoral agreements, performed surprisingly well in the region. Their increased competitiveness and export orientation bodes well for their future employment and growth once the period of modernization and consolidation has been successfully completed. Besides the *maquiladoras*, FDI did not go to high labour-intensive activities as envisaged by standard economic theories.

4.2. FDI and wages

One way to analyze the quality of employment is to analyze the evolution of wages in industries which saw high FDI inflows or which had a high presence of TNCs (Table 5). The study compares the evolution of the average wage per worker in a specific industry with the average wage in total manufacturing, the value of which is 1.0. A rise in the share means that the salaries of workers in this industry have improved above the average for manufacturing. It could mean a rise or fall in salary, but, in any case, they are still better off than the average industrial worker. It is also a certain indication of whether an industry is a low-wage or a high-wage one. In Argentina in 1993, for example, the average wage of workers in food, beverages and tobacco in current pesos was about half the average wage in the manufacturing sector as a whole, as this sector traditionally pays low wages. However, the share of wages per worker in this industrial category increased significantly, from 0.56 in 1993 to 0.93 in 1999, a level close to the average wage in manufacturing.

Table 7: Average wage in a specific product category as a percentage of the average wage earned in total manufacturing (w_i/w_{totman}^{33}), 1993-2000

Argentina	1993	1999
Food, beverages and tobacco	0.56	0.93
Chemicals and chemical products	0.40	1.94
Motor vehicles and other transport equipment	0.85	1.17
Brazil	1996	1999
Food, beverages and tobacco	0.78	0.79
Chemicals and chemical products	2.25	2.29
Machinery and equipment	1.34	1.29
Electrical and electronic equipment	2.21	2.91
Motor vehicles and other transport equipment	1.69	1.87
Mexico	1994	2000
Food beverages and tobacco	0.56	0.58
Chemicals and chemical products	0.92	1.05
Motor vehicles and other transport equipment	0.81	0.82
Electrical and electronic equipment	0.55	0.57
Machinery and equipment	0.61	0.68
Other manufacturing	0.44	0.39

Note: Real average annual wage growth in total manufacturing per worker in constant US\$: Argentina: 7.5 per cent, Brazil: -3.1 per cent; Mexico: -5.1 per cent. An increase in a share value can therefore mean a above average and positive wage growth, e.g. motor vehicles in Brazil with 1.7 per cent compared to an average of -3.1 per cent, or a below average wage fall, e.g. food, beverages and tobacco in Brazil with -1.0 per cent, compared with the average of -3.1 per cent. Both evolutions will lead to a rising wage share of this industry in total wages.

Source: Own calculations based on UNIDO, Indstat 4, Rev. 3

Table 7 reveals a general trend towards an increase in the share of wages (i.e. wages of a specific industry divided by total manufacturing wages), during the 1990s in industries that benefited most from FDI. A major contributory factor was the productivity rise in those industries as a result of a greater use of modern machinery, but labour shedding also played an important role.³⁴ Other studies confirm the finding. In Mexico, it has been found that foreign firms pay 21.5 per cent higher wages for skilled workers and 3.3 per cent higher for unskilled workers than domestic firms (Willem te Velde, 2003). To a lesser extent, a similar trend has been observed in Argentina and Brazil. FDI is therefore not associated with reduced inequality; rather, it may increase wage inequality (Feenstra and Hanson, 1997).

In Argentina, foods, chemicals and motor vehicles had higher wage shares in 1999 compared to 1993 and the wage share increase was higher than in Brazil and Mexico. Chemicals and motor vehicles can be considered high-wage sectors in Argentina. In general, food, beverages and tobacco was the only low-wage industrial category in Argentina and Brazil that received major FDI inflows. In Brazil, besides machinery and equipment, the wage shares of all other, generally high-wage, industries increased. In Mexico, the situation is slightly different. With the exception of chemical products, major FDI flows went to low-wage industries. Besides other manufacturing, all industries increased their wage share, in particular machinery and equipment and electrical and electronic equipment, produced by many *maquiladoras*. The wage share of *maquila*-dominated industries is still significantly lower than the wage share of traditional ISIs such as chemical products, but also increasing.

Looking at the distributional side of wages and income among different groups of workers as a result of increased FDI and trade liberalization, TNCs, are among the major exporters, wage inequality remained at a high level in Brazil and Mexico with a Gini

coefficient of 0.64 and 0.51, respectively, in 2001, and the Gini coefficient in Argentina rose from 0.50 in 1991 to 0.60 in 2002. Lederman, Maloney and Serven (2003), while analysing wages adjusted for skills by degree of exposure to trade, noted that in Argentina and Mexico the highest salaries were found in industries most exposed to imports and exports, while the non-tradable industries had among the lowest salaries. Labour productivity rose faster or fell slower in relatively high-skilled industries, leading to positive wage growth³⁵ of skilled workers compared to non-skilled workers. Neoclassical theory, however, would expect that developing countries, after trade liberalization, would use intensively their abundant production factor, which is unskilled labour. Unskilled workers would thus get faster wages increases, thereby reducing the wage gap with the skilled workers. This has not happened in our three countries for several reasons.

First of all, from a South perspective, new productive activities need relatively highly skilled workers compared to the rest of the domestic labour force. Thus there is increasing demand for high-skilled workers in both South and North. This is the result of within-industry changes rather than between-industry changes, contrary to neo-classical theory (Feenstra and Hanson, 1997). In the case of Mexico, the country does not have an abundance of unskilled workers compared with competitors in East Asia. Moreover, exchange rate appreciation contributed in all three countries to an increase in the wage price for local workers – another disincentive for investment in unskilled labour. A further argument is skill-biased technical change, which means that firms with greater access to technology have, overall, a higher demand for skilled workers. Moreover, in a globalized production process there is a greater need for unobserved skills, such as soft skills (e.g. interpersonal skills and team spirit), which requires training and skills upgrading. Workers with such skills are generally paid a higher salary to ensure that they remain in the company. In Mexico, *maquiladora* growth accounts for about 50 per cent of the increase in skilled workers' wages (Lederman Maloney and Serven, 2003). Long-term support to specific manufacturing, such as the automobiles, has led to a fragmented labour market, comprising insiders who are able to defend their privileged situation and outsiders – the working poor³⁶ – who would be willing to work for a much lower salary, but do not have access to those jobs.

Table 8: FDI inflows and their employment and wage impact, by sector, 1993-2000

Sectoral FDI	Argentina	Brazil	Mexico
Primary sector	Very strong	Insignificant	Insignificant
Employment impact	Insignificant	Insignificant	Insignificant
Services	Very strong	Very strong	Very strong
Employment impact	+	-	+
Industry	Strong	Strong	Very strong
Employment impact	+	-	+
Wage impact	+	0-+	0-+
1. Automobiles	Strong	Strong	Very strong
Employment impact	-	-	+
Wage impact	+	+	
Labour intensity	Medium	Medium	Low
2. Chemicals	Very strong	Very strong	Strong
Employment impact	+	+	-
Wage impact	+	Insignificant	+
Labour intensity	Low/medium	Low/medium	Low to high
3. Food, beverages and tobacco	Strong	Very strong	Strong
Employment impact	+	-	-
Wage impact	+	0	0
Labour intensity	Low/medium	Low to high	Low to high

Note: + = positive impact; - = negative impact; 0-+ = slightly positive impact; blank space = insignificant or mixed results showing no clear trend.

FDI in manufacturing also saw a boom in the 1990s, even though its share in the total FDI flows declined. Within the manufacturing sector, as shown in Table 8, the capital-intensive industries, promoted through the ISI period, mainly automobiles and chemical products as well as food, beverages and tobacco, received major FDI inflows. All these industries are characterized on average by low to medium labour intensity. The employment results were rather mixed, but these sectors experienced strong growth in productivity and a positive evolution of real wages. Industries formerly promoted during the ISI period and benefiting from sectoral agreements maintained their importance in the region. Their increasing competitiveness and export orientation is a positive sign for their future in terms of industrial development and employment once the period of modernization and consolidation has been successfully completed. The maquiladoras in Mexico (including textiles and electronics) were the only industries of the three countries receiving considerable FDI in labour-intensive activities to experience positive employment and positive growth of real wages, albeit from a low level. FDI in maquiladoras, however, has been declining constantly and significantly since 2000, as has formal employment.

5. Less state, more private initiative: industrial policy and FDI

As mentioned earlier, the role of the State in the economy has changed, from actively protecting a large part of the domestic productive sector to a State creating the environment for private activities. Instead, they were supposed to provide safety nets for workers exposed to the rough winds of private business. The State now serves to guide economic activities, providing the productive sector with information, advisory services and other forms of support³⁷. The industrial policies of the 1990s tended to offer favourable conditions to enterprises to promote industrial development and international competitiveness. The main goal of this new policy was to attract investment through a new, more liberal framework of rules and priority given to macroeconomic stabilization. An enlarged regional market through regional agreements and trade liberalization was seen to enhance competitiveness, quality and productivity in the economy. Sectoral or vertical policies lost their legitimacy, with some exceptions such as the automobile industry, and were more difficult to implement within the new ideological framework. Import protection was not considered in the new outward-oriented development strategy, and fiscal restraints did not leave much space for significant state interventions. Horizontal policies³⁸ were implemented to deal with market failures through financial instruments, such as credits for capital goods in Argentina, textiles in Brazil and cinematography in Mexico, but also through the provision of fiscal incentives in activities such as forestry in Argentina, electronics in Brazil and publishing in Mexico. However in Brazil, much more than in Argentina and Mexico, government policy has consistently sought to actively promote industrialization (Bonelli, 2001), even though the role of the State has diminished as a consequence of deregulation, privatization of public enterprises and trade liberalization. Nevertheless, Brazil dismantled the protection of its industry at a slower pace and to a more limited extent and it was more cautious in privatizing public companies.

At the regional level, NAFTA has adopted a fairly liberal stance; it does not envisage anything similar to a common industrial policy, besides the *maquiladora* regime which had already been introduced in the 1960s (see box below). Mercosur, however, does not have much more to offer in this regard. Little progress has been made in the field of harmonization of industrial and technological policies. The Common Market Group (Grupo Mercado Común), which has a working subgroup (number 7) on industry,³⁹ has not yet defined a global industrial and technological strategy for the subregion. In general, the lack of effective tools for the coordination of industrial policies has hindered the potential impact of sectoral arrangements to coordinate industrial restructuring, such as in textiles or chemicals. However, specific sectoral agreements of relevance have been signed for the automobile, iron and steel and sugar industries. Facilitating the creation of *empresas bi-nacionales* (“bi-national enterprises”) between Brazil and Argentina certainly had a positive, but not strong impact, especially in the first half of the 1990s.

In all three countries, active State intervention through vertical industrial policies was largely given up in the 1990s, with some exceptions, mainly the maquiladoras and the automobile industry. Macroeconomic stabilization as well as trade and financial liberalization were the main elements of the outward-oriented strategy that shaped manufacturing in Argentina, Brazil and Mexico.

Mexico's maquiladoras

The *maquiladoras* in Mexico are perhaps the most outstanding example of a proactive industrial policy during the 1990s, as it had a significant impact on the evolution of the manufacturing sector. In 1980 just 14 per cent of Mexico's exports could be attributed to the *maquiladoras* (Buitelaar and Urrutia, 1999), but by 2002, this had increased to 50 per cent, representing earnings of about US\$ 80 billion – larger than Brazil's total exports (Palma, 2003; ECLAC, 2004). In the 1980s, maquiladora output accounted for 10 per cent of GDP, compared with 30 per cent by the end of the 1990s (Dussel Peters, 2003).

Mexican policy to promote *maquiladora*-style assembly plants⁴⁰ is not new; it was launched much earlier, in 1965, as an industrial promotion programme for the regions bordering the United States (Buitelaar and Urrutia, 1999), and was then extended to other areas of the country in 1971. Nevertheless, *maquiladoras* experienced a real boom after the sharp devaluation of the peso as a result of the Tequila Crisis, but also due to the creation of NAFTA. The major motivation to invest in this type of assembly plant in Mexico was cheap and abundant labour as well as geographical, historical, cultural and institutional proximity to the United States. *Maquiladoras* mainly exist in electronics, car accessories, automobiles, apparel and textile. They have been the principal source of export and production growth in manufacturing during the 1990s. In addition, they were mainly responsible for the surge in intra-industrial and even intra-firm trade between United States firms and their branches in Mexico. The technological level of final products is relatively high.⁴¹ Nevertheless, more than 80 per cent of the exports depend on imported inputs, considered temporary imports (Dussel Peters, 2003). This strong dependence on imported inputs means that the sector still adds very limited value to the goods being produced. Thus gross output per employee has increased, but productivity, measured as value added per employee, has not.

This can be explained largely by the current *maquiladora* promotion scheme which creates disincentives for the domestic production of intermediary products. Neither import taxes (up to 20 per cent) nor a value-added tax (VAT) of 15 per cent are imposed on imported goods under the regulation, and the profit tax has been reduced significantly. United States companies are taxed only on the value-added component of the imported assembled goods, so that there is no incentive to establish linkages with Mexican industries, as domestic companies are subject to VAT. This implies a price advantage of up to 50 per cent for imported goods, which both positively and negatively affects domestic suppliers, and those outside the *maquiladoras* (Dussel Peters, 2003). The domestic suppliers who need imported inputs for their production benefit from the lower prices, but other domestic suppliers face tougher competition, as they do not get the same benefits. Thus, despite the enormous increase in production, the *maquila* economy continues to have few linkages with the rest of the Mexican economy.

Employment in the *maquiladoras* increased at an average annual rate of 13 per cent between 1993 and 1999. As a result, employment tripled, from 446,000 employees in 1990 to almost 1.3 million in 2000 and represents 5.6 per cent of total employment. Manufacturing of electrical and electronic components accounted for 34 per cent of employment in 1997, down from 40 per cent in 1988. Automobiles maintained a constant share of 20 per cent, while apparel increased its share from 9 per cent in 1988 to 20 per cent in 1997 (Buitelaar and Urrutia, 1999). Wages of *maquila*-dominated industries are still significantly lower than the wage share of traditional ISI industries, even though the *maquiladoras* are closing the gap with above-average growth rates over the past 10 years. Moreover, *maquiladora* growth accounts for 50 per cent of the increase in skilled labour (Lederman et al., 2003), as some plants use more skilled workers and provide more training

for current employees (Carillo, 2003). The tremendous growth in the *maquiladoras* also caused large-scale migration, in particular from the southern parts of the country to plants located along the border with the United States.

A disturbing fact is the sharp decline of the *maquiladoras* since 2000 due to increased competition from China and other Central American and Caribbean countries (UNCTAD, 2003b). Between June 2001 and July 2002, 19,545 *maquila* firms either left the country for another country, such as China or El Salvador, or closed down (Palma, 2003). The number of enterprises fell from 3700 to 2800 and the number of workers by 220,000 between 2000 and 2004 (UNCTAD, 2004). Their main advantages, cheap labour and proximity to the United States market, have proved to be rather fragile in terms of attracting FDI inflows.

Briefly, the *maquila* programme succeeded in creating employment with a relatively high share of female workers, though the quality of the jobs has not been that high and wages have been low but increasing. Moreover, the *maquiladora* industries have been characterized by low labour standards (Alarcón and Zepeda, 2004), and have been noted to obstruct unionization, and violate existing labour laws (Altenburg et al., 2001).

The future of the *maquila* economy is tied to its ability to remain internationally competitive without relying on “low-road” development practices. To this end, second and third generation *maquiladoras* have recently moved away from simple assembly activities to manufacturing and knowledge-intensive design of products. In particular the television and the autoparts industries, with firms like Sony, Delphi or Valeo, have moved towards high-value-added, technology-intensive activities, implying an important component of research and development (Dussel Peters, 2003). This “high-road” competitive strategy, albeit involving only a limited number of industries so far, has the potential of going beyond low-cost competition and developing greater linkages with the domestic economy through more vertical production activities in the country (including design, development and quality control). The rise in high-tech production also caused a higher demand for skilled workers (Moreno-Fontes, 2004).

6. Conclusions

The new outward oriented development strategy of the 1990s and the increased globalization of production worldwide led to a FDI boom in the region. The impact of large FDI inflows on employment, however, was to a large extent disappointing, which can largely be explained by the form of investment. Most foreign investment did not go into new productive activities. Services experienced a surge in FDI inflow as a consequence of domestic market opening and deregulation. Service FDI mainly came in form of M&As, the result of privatization of public utility companies or bank restructuring, which tended to use existing productive assets instead of establishing new assets. In addition, decades of protection led to a slack labour force, which was reduced during the privatization and modernization process of the 1990s, so that the overall impact on employment was minimal or even negative.

The manufacturing sector, the second most important destination of FDI inflows, also experienced disappointing results with regard to employment creation. Economic liberalization led to increased competitiveness and thus to restructuring strategies in order to increase productivity, which often involved rationalization measures and, as a result, labour shedding. In addition, FDI mainly went into low to medium labour-intensive sectors. Already present manufacturing TNCs made little, if any, contribution to employment creation. Even though “old” capital-intensive industries, such as automobiles and chemicals, were major recipients of FDI, these sectors experienced an overall decline in employment in the 1990s. On the other hand, they experienced a rise in productivity and competitiveness as well as a further export orientation of their products, which are promising signs for the future. This trend shows that the maintenance of targeted sectoral support by the public sector to this industry, even at the regional level, during a period inspired by liberal policies was crucial and helpful in the restructuring process. Moreover, wages in FDI dominated sectors rose above average in the manufacturing sector, especially with regard to skilled workers, which was mainly related to a rise in labour productivity.

In Mexico, contrary to Argentina and Brazil, a strong surge in manufacturing FDI led to strong employment growth in the 1990s. This positive trend, however, was mainly attributed to the maquiladora industry, which benefited from strong greenfield investments in labour-intensive activities. The maquiladora industry also experienced above average wage rise, even though their level is in general still below the manufacturing average. However, the comparative advantage of this industry was rather fragile, as evidenced by net FDI outflows since 2000 and a subsequent decline of formal employment.

FDI is also meant to generate forward and backward linkages with domestic firms. In ISI industries, some linkages were created, but mainly before the 1990s. Nevertheless, strong capital and import inflows caused an increased substitution of national suppliers in favour of international suppliers even in those sectors dominated by horizontal investment. Mexico benefited mainly from vertical FDI in maquiladoras, which developed very few links with the rest of the economy.

In terms of macroeconomics, increased FDI inflows had various negative side-effects. A slight crowding out effect between FDI and domestic investment was observed. A high interest rate policy to attract FDI was in particular counterproductive for SMEs, as they encountered serious difficulties to access financial resources for future investment. Strong foreign investment flows also negatively affected the competitiveness of SMEs and micro enterprises by appreciating the domestic currency, which facilitated imports and aggravated export competitiveness, thus generating trade imbalances. Moreover, the countries had a limited influence on FDI inflows with investment decision depending on the country of origin, mainly OECD countries, and the investment decision of these companies. As a result,

the rising share of FDI in domestic investment increased also the external vulnerability of Argentina, Brazil and Mexico.

A country needs stable and productive investment inflows, which contribute to a rise in production and employment, to the technological modernization of the economy, to the production of higher value added goods and to a better integration into the world economy. In an increasingly globalized world a country can influence FDI only to a limited extent. The question is how and to what extent a country can influence or steer investors' decisions to receive investment which promotes production and employment:

1. The State has a major role in making the national territory an attractive place for investors. In the short term, it could create a stable macroeconomic environment, thus improving the growth potential, set up a stable and transparent regulatory framework, guarantee the respect of property rights, improve the performance of national institutions as well as fight against corruption. Volatile, speculative investment as a part of portfolio investment is not desirable and has shown negative impacts in the 1990s worldwide, even though it dropped to a low level in the second half of the nineties in the three analyzed countries. Nevertheless, the case of Chile showed that the introduction of specific barriers to portfolio investment is not a disincentive for FDI. On the contrary, it could contribute to a more stable macroeconomic environment, which is an important incentive for investors in productive activities.

In the long run, the State should try to improve or even change the locational advantage of a country by continuous investment in human capital, in particular in education and in physical capital, e.g. in infrastructure. Better skilled workers may attract other forms of investment implying productive activities of higher value added. Indirect measures are equally important which contribute to the attractiveness of a country for investors, such as the up-grading of technologies, the protection of the environment, a healthier business environment, an effective institutional setting or an efficient social dialogue.

2. As not all foreign investment is helpful for development, the countries should take a more proactive stance towards foreign investment, in particular encourage direct investment in those sectors that are promising for sustainable economic and employment growth and discourage strong fluctuations of short-term non productive investment. The State can encourage foreign investors to cooperate more with domestic firms, both large and small, to promote value-chain upgrading and to invest in human capital development. "Stick" measures, such as rules and regulations, could be combined with "carrot" measures, such as incentives and promotion policies. Some of the performance requirements for foreign investors could also be expressed in form of fiscal incentives, e.g. incentives to incorporate local inputs, to train domestic workers, to support collective bargaining and social dialogue, etc.

3. Manufacturing sectors, promoted during the ISI period, are still recipients of significant investment, mainly horizontal investment in higher wage segments following mainly a market-seeking strategy and thus less vulnerable to international factor price competition. New ways could be explored to focus more on the development of those sectors and to strengthen those already existing, but still weak productive networks with domestic firms by forming industrial clusters. Moreover, their production could be gradually orientated not just to the domestic or regional market, but also to the world market. Productivity and competitiveness needs to be increased to international levels. Recent trends in these countries

follow this direction as in the automobile sector, which saw a significant rise in productivity and competitiveness and, as a result, in exports.

4. Though the maquiladora industry is one of the most dynamic sectors in terms of the technological content of the products, FDI inflows, as well as of employment and wage growth, the sector has increased Mexico's external vulnerability. The value added of the new specialization is limited due to a high import content of exports and, more worrisome, the industry is, to a large extent, based on a rather fragile comparative advantage on labour costs. But the development of third generation maquiladoras has been encouraging, which are based on technology-intensive activities and employ a higher share of high-skilled workers. By competing on the skill content of the product, the firms are in a better position to fight off low-wage competition. The development of third-generation maquilas could be facilitated by public support, in particular efforts could be made to link these maquilas with other sectors of the economy, through the promotion of joint ventures or strategic alliances with domestic suppliers.

5. Regional trade agreements could be powerful instruments for development rather than end goals. Trade and foreign investment have often been regarded as an adequate measure for development, but they could not fulfill this role. Investment rules within those agreements could provide the analyzed countries with adequate policy space to better combine both domestic and foreign investment for sustainable development (L. Zarsky, 2004). Regional sectoral policies could be helpful in this regard, as the sectoral Mercosur agreement for the automobile sector has shown. This, for example, is not the case of NAFTA, where Chapter 11 on foreign investment explicitly forbids Mexico to use industrial policy, such as performance requirements. It may be worth integrating these considerations into future trade negotiations like the Free Trade Agreement of the Americas. Nevertheless, incentives could also be misused as a means for aggressive competition for FDI, especially in order to get greenfield investment, often within a regional block as seen in the case of Mercosur. Regional co-ordination establishing clear regulation and rules in this regard are needed to avoid inefficient allocation of financial resources.

FDI is crucial for the development of the region, for its integration into the world market and for employment, but so is domestic investment of local firms, which was neglected during the 1990s. A good balance between both has to be found in Argentina, Brazil and Mexico, which would also reduce external vulnerability.

Notes:

¹ The exceptional jump in 2001 can be explained by the merger of the Mexican bank, Banamex, with the American bank, Citigroup.

² It is interesting to note the strong position of the Cayman Islands (3rd place in 1998 and 5th place in 2002), a position very close to that of Germany, which may give an indication of the importance of non productive investment.

³ UNCTAD website at: <http://www.unctad.org/Templates/Page.asp?intItemID=1923&lang=1>

⁴ The TNI was developed by UNCTAD, 2002. The Transnationality Index is a composite index of the following elements: (i) FDI inflows as a percentage of gross fixed capital formation (GFCF), average for the period 1997-1999; (ii) inward FDI stock as a percentage of GDP; (iii) value added of foreign affiliates as a percentage of GDP; and (iv) employment of foreign affiliates as a percentage of total employment.

⁵ India, for example, has a low TNI Index combined with a high employment share, while the opposite is true for Brazil.

⁶ To permit an in-depth analysis of the employment situation in specific TNCs, data has been taken from a database developed by the journal, *América económica*, which regularly collects data on major TNCs in Latin America. As the data are not complete, a linear comparison with other data appears to be difficult, but interesting findings can, nevertheless, be drawn from what is available. For more details, see Annex Table 4.

⁷ Employment remained stable in the chemical sector in Brazil, at 0.3 per cent, during 1996-1999. Employment fell in the German TNCs Bayer by 12.1 per cent and in BASF by 8.8 per cent during the same period, although it recovered slightly thereafter, whereas employment in Unilever (hygiene and cleaning) increased by 5.9 per cent. Nevertheless, the period of analysis is rather short and three major companies cannot be considered representative of all the TNCs in the sector.

⁸ “Macroeconomic Policies for Growth and Employment,” ILO 2004b.

⁹ See Annex Table 5.

¹⁰ See, for example, Chudnovsky and López, 2002, for Argentina.

¹¹ UNCTAD’s Inward FDI Potential Index Ranking is based largely on structural economic factors, such as GDP per capita, real GDP growth, inward FDI stock, exports as a percentage of GDP, number of telephone main lines and mobiles, commercial energy use, R&D expenditure, students in tertiary education and country risk. According to the FDI Confidence Index of the Global Business Policy Council the factors that recently had the greatest effect on Brazilian FDI inflows have been: (i) macroeconomic stability (69 per cent); (ii) consistent government support for pro-market policies (53 per cent); (iii) regional stability (48 per cent). (iv) political and economic recovery in the Mercosur countries (31 per cent); (v) progress on the Free Trade Agreement of the Americas (24 per cent); (vi) recovery of the United States economy (22 per cent); (vii) security reforms (22 per cent); (viii) sustained market-based policies (13 per cent); and (ix) privatization of key industries (13 per cent).

¹² For more information, see Chudnovsky and López, 2002; Baumann, 1998; IADB, 2002c and d; Blomström and Koko, 1997.

¹³ FDI inflow: Brazil: 16, 590 million current US dollars in 2002 and 10,144 million in 2003; Mexico: 14,745 million US dollars in 2002 and 10,783 million in 2003 according to UNCTAD, 2004.

¹⁴ Between 1991 and July 2001, the Brazilian federal and state governments collected US\$ 67.9 billion in revenue from privatization.

¹⁵ However, the sale of the large Mexican insurer, Aseguradora, in 2002 was a notable exception when sold to the American Company MetLife for US\$ 92 million (see ECLAC, 2001).

¹⁶ See also Dussel, 2000b.

¹⁷ Bielschowsky (1999) refers to a “mini-cycle” of modernization, especially between 1995 and 1997. See also Posthuma, 2004.

¹⁸ Data, measured in local currency, concern the period 1996–1999 for the manufacturing sector in all three countries. The period is relatively short because of the lack of comparable and available data for a longer time period.

¹⁹ In terms of FDI stock, the share of investment in primary resources increased from 19.4 per cent in 1992 to 34.5 per cent in 2002.

²⁰ The share of the secondary sector in total FDI stock declined in Argentina, from 37 per cent in 1992 to 28 per cent in 2001, and in Brazil from 69.1 per cent in 1990 to 33.7 per cent in 2000. However, over the period 1990–2001 it saw a growth rate of 222 per cent in Argentina, and of 34.9 per cent in Brazil from 1990 to 2000. As for services FDI in Argentina, there were net outflows resulting from the crisis in 2002.

²¹ In Argentina, for example, 67 per cent of all capital involved in privatization came from abroad. Own calculations based on Kulfas, Porta and Ramos, 2002.

²² With the exception of Argentina, where FDI inward stock remained more or less constant between 1992 (sectoral share of 38 per cent) and 2001 (36 per cent).

²³ The participation of foreign banks in the domestic market rose in Argentina from 10 banks in 1990 to 61 in 2001, in Brazil from 6 to 49, and in Mexico from 0 to 90. The penetration ratio of majority foreign owned bank affiliates is 32 per cent in Argentina, 30 per cent in Brazil and 83 per cent in Mexico (UNCTAD, 2004). These investments contributed to an increase in efficiency in the banking sector.

²⁴ All three countries saw strong fluctuations in FDI flows in the financial sector due to the acquisition of domestic banks.

²⁵ Employment figures on services are from IDB, 2003 and relate to average annual growth rates in the 1990s.

²⁶ In Argentina, for example, 67 per cent of all capital involved in privatization came from abroad. Own calculations based on Kulfas, Porta and Ramos, 2002.

²⁷ Its share of GDP fell in Argentina from 16.5 per cent in the 1980s to 15.5 per cent in 2000, in Brazil from 9.6 per cent to 6.6 per cent and in Mexico from 20.5 per cent to 19.8 per cent over the same period.

²⁸ The share of informal workers in Brazil was 40.6 per cent in 1990 and increased to 47.1 per cent in 1999. In Mexico it was 38.4 per cent in 1990 and increase to 43.2 per cent in 1995, but fell to 39.2 per cent in 2000 (OIT, 2002)

²⁹ FDI in the automobile industry increased sharply in the mid-1990s, but then experienced a sharp decline, mainly as a result of slow economic growth and consumer demand in Argentina and in the region.

³⁰ Basic chemicals, for example, are ranked 20 out of 49 (medium) in Argentina, 48 out of 60 (high) in Brazil, and 102 out of 123 in Mexico.

³¹ Exceptions of high labour-intensive sectors are sugar in Mexico (111 out of 123) and beverages in Brazil (59 out of 60). See also Annex, Table 6.

³² According to the Mexican Secretaría de Economía, the sector saw an increase from US\$ 707 million in 1994 to US\$ 1060 million in 2002.

³³ Calculated on the basis of current domestic currencies.

³⁴ The case of the chemical industry in Argentina is the most significant in this regard. While the share of wages per worker between 1993 and 1999 increased by 488 per cent, the share of total wages of all workers in the industry rose by 318 per cent, which means that fewer workers earned higher wages.

³⁵ For example, in the period 1984-1999 the average annual labour productivity increase in Mexico was as follows: export-oriented industries: 4.49 per cent (real wages: 2.28 per cent); non-*maquiladora* industries: 3.46 per cent (real wages: 1.09 per cent); *maquiladora* industries: -0.32 per cent (real wages: -0.24 per cent).

³⁶ According to ECLAC data (Panorama Social (2004), 2002-2003), 45.4 per cent of Argentineans are below the poverty line in 2002, 37.5 % of Brazilians in 2001 and 39,5 per cent in Mexico in 2002.

³⁷ Trade liberalization is not an industrial policy, but it nevertheless profoundly affected the industrial sector as the latter became directly exposed to international competition and to international rules. Another example is the macroeconomic stabilization programme, which changed the business environment from a high inflationary to a non-inflationary one.

³⁸ Horizontal industrial policies include a large set of trade, fiscal and financial tools, targeted in general to the whole economy. They are supposed to have a “neutral” effect on the domestic economy, whereas vertical industrial policies are considered to be selective (see ECLAC, 2004).

³⁹ It looks at issues such as promotion of science and technology, encouraging quality and productivity and harmonization of measures promoting specific sectors, as well as the respect of property rights.

⁴⁰ *Programa de Importación Temporal para la Exportación* (PITEX) or Temporary Imports for Exports Programme.

⁴¹ In Mexico, technological upgrading was observed as a consequence of FDI inflows, especially in automobile assembly, autoparts and non-electrical machinery, which have been able to produce medium- to high-technological goods for export. However, in many cases national content was rather low and there was no integration with the rest of the economy. Technology and productivity spillovers to national companies did not take place (Zarsky and Gallagher, 2004). In Mercosur countries, a certain level of technology transfer and diffusion was observed in automobile production (Blomstroem and Koko, 1997), but, in general, the technological specialization index fell in Argentina, from 0.12 in 1977-1980 to 0.07 in 1995, and in Brazil from 0.25 to 0.23 over the same period, partly due to the disengagement of the State (Mattar et al., 2002; de Abreu Campanario and da Silva, 2003).

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ANNEX
Table 1: Major long-term FDI figures, 1970-2003

	1970s	1980s	1990-2003
FDI Inflow			
Argentina	130.7	584.4	5855.6
Brazil	1269.9	1721.3	12941.9
Mexico	601.5	2080.3	11058.2
FDI Stock			
Argentina		6403	35875.7
Brazil		25438.7	78507.4
Mexico		17697.9	71913.2
FDI Inflow as % of GFCF*			
Argentina	1.3	2.9	14.4
Brazil	4.9	3.2	7.8
Mexico	3.9	5.9	12.2
FDI Stock as% of GDP*			
Argentina		6.9	11.1
Brazil		9.5	11
Mexico		10.2	12

Note: * 1990-2002 for the last column.

Source: UNCTAD, FDI database: <http://stats.unctad.org/fdi/eng/TableViewer/wdsview/dispviewp.asp>

Table 2: FDI stock, 6 major products in Argentina and Brazil

Argentina 2002	
Product	Share
Extracted crude petroleum and natural gas	32.69
Electricity, gas and water	12.72
Chemicals and chemical products	11.74
Food, beverages and tobacco	8.31
Finance	5.98
Motor vehicles and other transport equipment	4.98
Total 6 major products	76.42
Brazil 2000	
Product	Share
Transport, storage and communication.	18.69
Business activities	14.73
Trade	9.94
Motor vehicles and other transport equipment	6.51
Chemicals and chemical products	5.87
Food, beverages and tobacco	5.19
Total 6 major products	60.93

Source: UNCTAD, FDI database, Country Profile:
<http://www.unctad.org/Templates/Page.asp?intItemID=1923&lang=1>.

Table 3: Number of foreign affiliates and parent corporations

	Number	Year
Argentina	1058	2001
Brazil	8050	1998
Mexico	8420	1998
India	1416	1995
China	363885	2000

Source: UNCTAD, World Investment Report 2002.

Table 4 : Evolution of employment in major TNCs, 1991 -2002

	Empresa	Sector	1991	1993	1994	1996	1998	1999	2000	2002
Argentina										
Spain	<i>Repsol YPF</i>	Petroleum/Gas	19'348	7'514	7'500	5'400		37'000		9'975
Germany	<i>Siemens</i>	Electronics			2'657	2'700	3'016		2'416	900
Germany	<i>Volkswagen</i>	Automobile					3'701	3'791	3'518	2'535
France	<i>Renault</i>	Automobile						2'687		
USA	<i>Ford</i>	Automobile							3300	2'300
Germany	<i>Bayer</i>	Chemical products		1'032	1'100	1'110			985	
UK	<i>Unilever</i>	Hygiene/Cleaning		3'390	2'971	2'800	3'400		3'002	2'500
UK	<i>Philip Morris</i>	Tobacco				1'795				
Switzerland	<i>Nestlé</i>	Food			3'192	3'360				
France	<i>Carrefour</i>	Trade		4'000	5'496	6'600	8'548	8'419		
Netherlands	<i>Disco</i>	Trade			5'343	5'600		17'500	17600	
Spain	<i>Telefónica</i>	Telecommunications	17'500		16'836	16'800				
Italy	<i>Telecom</i>	Telecommunications			14'453	14'400			14894	1'337
Brazil										
Netherlands/UK	<i>Shell</i>	Petroleum/Gas	3'017	2'730	2'623	2'396		1'745	1'464	1'759
Germany	<i>Siemens</i>	Electronics							5'701	3'619
USA	<i>IBM</i>	Computers	4'975	3'474	3'400	4'039		4'885		
Germany	<i>Volkswagen</i>	Automobile				29'616	28'240	25'290	27'907	26'129
USA	<i>General Motors</i>	Automobile	20'180	21'622	21'600	20'800	17'916	19'000	19'110	14'136
Germany	<i>Daimler-Chrysler</i>	Automobile	20'625	17'056	16'536	11'039		12'130	12'353	11'035
Italy	<i>Fiat</i>	Automobile	13'402	16'632	17'701	21'359		11'300	9'177	8'700
USA	<i>Ford</i>	Automobile				12'191	10'788	10'740	6'975	6'480
Germany	<i>Bayer</i>	Chemical products	8'122	7'291	6'481	2'555		2'245		
Germany	<i>BASF</i>	Chemical products	1'949	1'592	4'825	4'429		4'040	5'701	3'794
UK	<i>Gessy Lever</i>	Hygiene/Cleaning	9'553	9'366	11'494	9'724		10'300	12'369	
Switzerland	<i>Nestlé</i>	Food	13'654	12'855	12'636	17'150	14'018	12'420	12'369	16'525
USA	<i>Coca Cola</i>	Food & beverages	7'020	5'358	5'274	6'579		4'570		
France	<i>Carrefour</i>	Trade	12'535	17'583	22'658		28'195	37'000	44571	45'400
Mexico										
Germany	<i>Siemens</i>	Electronics	4'503	3'797	1'977	3'844	12'648	13'000	13'366	9'396
USA	<i>General Electronics</i>	Electronics							32000	
Japan	<i>Sony</i>	Electronics							11646	9'679
South Korea	<i>Samsung</i>	Electronics							5'700	5'789
USA	<i>IBM</i>	Computers	2'145	1'636	1'674			10'000	9'630	
USA	<i>Hewlett-Packard</i>	Computers	1'024	926	969	1'045	1'146	1'179	4'931	2'200
USA	<i>General Motors</i>	Automobile	65'605	63'996	76'426	91'263	10'408	14'000	14'968	12'822
USA	<i>Daimler-Chrysler</i>	Automobile	11'383	10'252	10'445	11'066	90'531	12'080	12'500	9'043
USA	<i>Ford</i>	Automobile	8'840			7'766	7'182	7'868	9'442	6'205
Germany	<i>Volkswagen</i>	Automobile	18'967	14'262			15'958	15'977	16'456	13'974
USA	<i>Delphi Corporation</i>	Autoparts						72'000	81000	74'000
Germany	<i>Basf</i>	Chemical products	2'412	2'577	1'646	1'717	1'749			
USA	<i>Du Pont</i>	Chemical products	1'328	1'289	1'625	1'476	1'502	4'324	4'320	4'324
USA	<i>Group Kodak</i>	Photography	3'036	2'982	3'005	5'164	3'199	3'706	5'517	3'431
Switzerland	<i>Nestlé</i>	Food	6'345	6'300	5'801	6'442	6'716	7'109	6'990	
UK	<i>Unilever</i>	Food	3'127						4427	5'000

Source: Database of América economía.

Table 5: Efficiency-seeking, market-seeking and resource-seeking investment in the 1990s

	Efficiency-seeking	Country	Resource-seeking	Country	Market-seeking	Country
Primary			Gas/petroleum Minerals	Argentina, Brazil Argentina		
Manufacturing	Automobile	Mexico			Automobile	Argentina, Brazil
	Electronics	Mexico			Agro-industry, food	Argentina, Brazil, Mexico
	Wearing apparel	Mexico			Chemical products	Brazil
Services					Finances	Argentina, Brazil, Mexico
					Telecommunications	Argentina, Brazil, Mexico
					Electrical energy	Argentina, Brazil
					National gas distribution	Argentina, Brazil, Mexico
					Retail trade	Argentina, Brazil, Mexico

Source: CEPAL, 2002.

Table 6: Labour intensity per country, five lowest and highest labour-intensive product groups in manufacturing

Low labour intensity	High labour intensity
Argentina	
Knitted and crocheted fabrics and articles	Tanning, dressing and processing of leather
Wearing apparel, except fur apparel	Domestic appliances n.e.c.
Printing and related service activities	Railway/tramway locomotives and rolling stock
Refined petroleum products	Office, accounting and computing machinery
Furniture	Coke oven products
Brazil	
Aircraft and spacecraft	Coke oven products
Recycling of non-metal waste and scrap	TV and radio receivers and associated goods
Recycling of metal waste and scrap	Artificial fibres
TV/radio transmitters; line communication apparatus	Beverages
Electric motors, generators and transformers	Building and repairing of ships and boats
Mexico	
Measuring/testing/navigating appliances, etc.	Tobacco products
Made-up textile articles, except apparel	Builders' carpentry and joinery
TV and radio receivers and associated goods	Processing/preserving of fish
Railway/tramway locomotives and rolling stock	Fertilizers and nitrogen compounds
Tanks, reservoirs and containers of metal	Wooden containers

Note: See Note 14.

Source: Own calculations based on UNCTAD, FDI database (<http://www.unctad.org/Templates/Page.asp?intitemID=1923&lang=1>) and UNIDO, Indstat, revision 3.

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