SERIES

SEDE SUBREGIONAL
DE LA CEPAL

MEXICO

estudios y perspectivas 10

Foreign Investment in Mexico after Economic Reform

Jorge Máttar
Juan Carlos Moreno-Brid
Wilson Peres

Mexico, D. F., July 2002

This paper was prepared by Jorge Máttar, Coordinator of Research, ECLAC/Mexico; Juan Carlos Moreno-Brid, Regional Adviser, ECLAC/Mexico, and Wilson Peres, Chief, Industrial and Technological Development Unit, ECLAC/Santiago. Valuable research assistance from Jesús Santamaría (ECLAC/Mexico) is gratefully acknowledged.

A revised version of this paper will be published in Kevin J. Middlebrook and Eduardo Zepeda, eds., *Confronting Development: Assessing Mexico's Economic and Social Policy Challenges,* Center for U. S., Mexican Studies and Stanford University Press, 2002.

United Nations Publication
LC/L.1769-P
LC/MEX/L.535
ISBN: 92-1-121363-0
ISSN printed version: 1680-8800
ISSN online version: 1684-0364

Sales N° : E.02.II.G.84
Printed in United Nations, Mexico, D. F.

Contents

Tables

Figures

Introduction

Since the mid-1980s the Mexican economy has undergone a process of deep economic reform designed to shift away from the more inward-oriented development model that Mexico had followed until then. The main purpose of these reforms was to privilege market mechanisms in economic activities, which meant reducing the state's direct and indirect involvement in the economy. Some of these economic reforms have been completed, some are still in process, and still others — those that encountered opposition — have not yet, or have only just, been implemented.

Economic liberalization had varying effects on the behavior of economic actors and therefore on the evolution of various economic sectors and the Mexican economy as a whole. Liberalizing reforms were intended to have a strong impact on the investment process. Under the previous development model — import-substitution industrialization (ISI) — the state played a fundamental role in directing investment; the reforms sought to shift that role by placing greater emphasis on domestic and foreign private investment, while at the same time orienting investment more toward exports and tradable activities and less toward non-tradable sectors. The expectation was that, as the reform process took its course and obstacles to free market operations were reduced, investment decisions would increasingly be based on market signals, thus increasing both efficiency in the use of the factors of production and the potential for economic growth.

Mexico's liberalization process began in 1982, when collapsing petroleum prices and rising international interest rates highlighted the economy's vulnerability and the waning effectiveness of an import-

an import-substitution model characterized by high levels of protectionism and strong state participation. Those developments prompted the Mexican government to try to modulate the impact of international economic shocks, and they also paved the way for vigorous attempts to modify the country's development pattern.

Liberalizing reforms sought to convert the private sector into the axis of economic growth, ideally making it able to operate competitively (without subsidies) in world markets. The main elements of this reform process included opening the domestic market to foreign trade, attracting foreign investment, deregulating the economy, privatizing public enterprises, signing the North American Free Trade Agreement (NAFTA), and liberalizing financial markets. [1] The reforms' goals have been bolstered by a governmental commitment to continue stringent monetary and fiscal policies while eliminating preferential lending.

These efforts, particularly by the late 1980s, transformed a nearly closed economy into one that is highly open to foreign participation in trade and investment. State involvement in the economy was curtailed sharply, as shown by the downsizing of the public sector and the substitution of market forces for state intervention in determining key variables such as interest rates, nominal exchange rates, and prices of basic inputs.

In addition to their broad sweep and the speed with which they were implemented, the reforms displayed two other interesting features. The first is that they were largely accepted by key economic and political players. That is, the shift toward trade liberalization, the elimination of subsidies, and an expanded role for market forces in allocating funds did not encounter strong opposition from those who had benefited from the prior system of protection and subsidies, or from the workers and labor unions who were affected by productive restructuring and new conditions in the labor market. Even the currency crisis that erupted in December 1994 did not provoke a rejection of the new development model. In fact, in dealing with the crisis, the administration of President Ernesto Zedillo (1994-2000) reaffirmed its commitment to the reform process and to orthodox management of fiscal and monetary policy. Moreover Vicente Fox (2000-2006) — Mexico's first ever elected Presidential candidate not nominated by the Partido Revolucionario Institucional (PRI) — has stated his intention to extend the reform process.

The second feature concerns the reforms' impact on economic growth. From 1983 to 1988, the Mexican economy was stagnant; from 1989 to 1994, per capita gross domestic product (GDP) grew by only 0.8 percent a year on average; and in 1995, more than ten years after the reform process was launched, per capita GDP dropped 9 percent in real terms, its largest decline in sixty years. The consensus among observers is that Mexico received an international financial aid package and achieved a speedy, though moderate, economic recovery in 1996-2000 largely thanks to the NAFTA, the productive apparatus's focus on foreign markets, and appropriate fiscal policy-all central results of the economic reform process. Despite the recovery, however, Mexico's economy has yet to show the high and sustained growth rates required to generate sufficient jobs to curb national unemployment and underemployment. Moreover, in 2001 Mexico's GDP once again stalled, falling 0.1%.

The key role that capital formation plays in creating and expanding productive capacities, incorporating technology, and raising productivity makes it a fundamental factor in macroeconomic development. Yet despite its importance, there is little information available on the sectoral performance of capital formation in the Mexican economy. [2] In fact, empirical studies of investment in specific sectors have lagged behind the theoretical advances of recent years.

[1] Mexico's reforms are well documented; for an overview, see Aspe 1993; Lustig 1998; Ros 1991.
[2] The available data on capital formation tend to be highly aggregated.

Against this background, this chapter analyzes the effect that Mexico's liberalizing reforms have had on fixed capital formation at the aggregate level and in the industrial sector. The period under study begins with the aftermath of the 1982 economic crisis and continues to 2000 and — when data was available — to 2001. The following four sections review, respectively, the behavior of aggregate investment and its relationship to the growth process; trends and performance of foreign direct investment (FDI), including the activities of in-bond processing plants (maquiladoras); the behavior and determining factors of investment in manufacturing; and the impact of investment patterns on the manufacturing industry's structure and export performance.

[3] [4] Commodity-producing sectors and public utility services are not included in this study. For a general overview of investment in these fields, see Máttar 2000. For the telecommunications sector, see Escobar de Medécigo 1999; on the electrical power sector, Rodríguez 1999; on highways and ports, Scheinvar 1999; and on the petroleum sector, Torres 1999.

[4] The section on the behavior of aggregate investment partially draws on Máttar 2000 and the ones on investment in manufacturing, and its impact on the industry's structure and export performance are based on Moreno-Brid 1999.

I. The Dynamics of Aggregate Investment

The Mexican economy has grown slowly since 1982. GDP growth rates have been low, development has been unstable, and the economy has been subject to the effects of recurrent balance of payments crises. In the 1983-1987 period, productive activity stagnated, and the recovery that began in 1988 — with the reform process and domestic price stabilization fully under way — was limited. GDP growth reached 5.1 percent in 1990 but subsequently lost momentum. It was just 2 percent in 1993, and the 4.4 percent expansion in 1994 (bolstered by public spending) led to a major foreign exchange crisis. On average, real annual GDP increased 3.9 percent during 1988-1994, much lower than the 6 percent that had been recorded consistently from the end of World War II until the beginning of the 1980's.

In 1995, GDP fell 6.2 percent in real terms, the sharpest drop since the early 1930s. Although economic growth resumed in 1996-2000, its expansion abruptly stopped in 2001 (-0.1%). On average, from 1985 to 2001, GDP expanded at an annual rate of 2.3 percent, or barely half a percentage point above the rate of population growth. Furthermore, by 2001 per capita GDP in constant dollars was equal to 22 percent of the U.S. figure, a gap almost 9 percentage points wider than in 1981 and similar to the level recorded fifty years earlier.

The slowdown in economic growth was accompanied by a weakening of investment, which hampered the expansion and modernization of productive capacity while restricting the growth of

aggregate demand. Total gross fixed investment in real terms followed a trajectory similar to that of GDP, growing rapidly during the petroleum boom of the late 1970s and early 1980s, stagnating from 1982 to 1987, and recovering in 1988 (table 1). This rebound gained impetus in 1990-1992, when investment grew 11 percent on average due to high expectations generated by the NAFTA negotiations. However, because of uncertainty surrounding the U.S. Congress's approval of the NAFTA, capital formation fell off in 1993 in real terms. The recovery in capital formation in 1994 was interrupted by a 29 percent drop in 1995, but registered a vigorous expansion in 1996-2000 (13.1 percent per year on average). However, in 2001 it again collapsed (-5%). If one looks at the 1980s and 1990s as a whole, the investment process has performed poorly: in 2001 real gross fixed investment was only a little higher than in 1981.

For its part, during the 1970s, the investment/GDP ratio showed a downward trend that was offset by the petroleum boom, reaching a historical high of 26.5% in 1981 (table 1). The 1982-1983 recession translated into a 10-point fall, which placed the ratio substantially below 20 percent for the first time in years. The ratio hovered around 18 percent thereafter and only began rising consistently at the end of the 1980s. Its rise was sharply curtailed in 1995 when it dropped 5 percentage points, to reach an all time low of 14.6 percent. And — as mentioned above — in spite of its subsequent expansion, by 2001 it stood at 19.5 percent; still below its 1980-1981 levels. The disappointing performance of investment gives rise to concern over Mexico's future economic growth.

Table 1

GROWTH IN GROSS FIXED CAPITAL FORMATION, GROSS DOMESTIC PRODUCT (GDP), AND THE INVESTMENT/GDP RATIO IN MEXICO, 1970-2001

(Percent)

	Growth in Gross Fixed Capital Formation	GDP Growth	Gross Fixed Capital Formation/GDP Ratio
1970-1975	**8.5**	**6.3**	**21.3**
1976-1980	**9.3**	7.0	22.3
1981-1985	**0.5**	**3.2**	**20.8**
1986	**-11.8**	**-3.8**	**16.4**
1987	**-0.1**	1.9	**16.1**
1988	**5.8**	1.2	**16.8**
1989	**5.8**	**4.1**	**15.8**
1990	**13.1**	**5.2**	17.0
1991	11.0	**4.2**	**18.1**
1992	**10.8**	**3.5**	**19.4**
1993	**-2.5**	1.9	**18.6**
1994	**8.4**	**4.5**	**19.3**
1995	-29.0	**-6.2**	**14.6**
1996	**16.4**	**5.2**	**16.1**
1997	20.9	**6.7**	**18.3**
1998	**10.3**	**4.8**	**19.3**
1999	7.7	**3.8**	19.9
2000	10.0	**6.9**	20.5
2001	**-4.8**	0.1	**19.5**

Source: ECLAC with INEGI data.
Note: Figures for 1970-1988 were calculated on the basis of data given in 1980 constant pesos; figures for 1989-2001 were based on data in 1993 constant pesos.

The period under study can be divided into four phases, in keeping with the behavior of investment and growth. Although the level of capital formation differed by sectors, the periodization employed here is nevertheless valid in general terms. The first period (1982-1987) was characterized by a drop in investment levels and generally slow economic growth. This was the period of the Mexican government's adjustment and stabilization programs which, among other things, were designed to balance public finances and alleviate the foreign exchange constraint. As such, they had two complementary recessive effects. The first, fiscal discipline, led to a downturn in investment in some infrastructure sectors. The second was a reduction in multiplier effects in the rest of the economy, the outcome of which was stagnation.

By the end of the 1982-1987 period, national investment levels in real terms were no higher than they had been at the end of the 1970s. However, a significant recovery had begun in certain activities, particularly investment to modernize machinery and equipment in sectors such as auto parts, automobiles, petrochemicals, beer, glass, and certain processed foods. Conversely, the oil and gas, electrical power, highways and ports, and water and sanitation sectors — which depended almost entirely on public investment — showed strong capital formation shortfalls, owing largely to the fiscal discipline that was part of the macroeconomic adjustment process.

The second period (1988-1994) — dating from the implementation in December 1987 of an unorthodox stabilization program known as the Economic Solidarity Pact — saw a fairly generalized recovery of investment. In some cases, this was the result of reforms aimed at specific sectors (including the highway concession program, privatization of the steel industry, and the divestiture of the state monopoly on telephone services). In other instances, investment recovery reflected reforms that had a broader impact on the economy, such as the initiation of the NAFTA negotiations and a more flexible approach to FDI. These developments had a positive impact on investment decisions, particularly in concentrated sectors where transnational companies had a strong presence. Conversely, the restructuring of the productive apparatus during these years led to a drastic decline in investment in numerous small-scale enterprises and even to their elimination from the market. This was especially the case in sectors (toys, clothing, textiles, footwear, and so on) that were slow to adopt a restructuring strategy to bring them in line with open markets and strong international competition.

At the beginning of the 1990s, many observers hoped that, after nearly ten years of stagnation, the Mexican economy would enter a new phase of sustained, strong growth. The private sector was optimistic; privatization had generated favorable prospects for investment, and the NAFTA was expected to encourage large flows of FDI. Nevertheless, these growth expectations were shattered at the end of 1994 when a sharp devaluation of the peso led to Mexico's worst recession in sixty years.

During the third period (basically 1995), the government announced a number of initiatives to divest public assets. These actions, which were expected to generate significant flows of FDI, included the partial or total divestiture of the state-owned petroleum company's (Petróleos Mexicanos, Pemex) secondary petrochemicals industry, the electrical power sector, railways, satellite communications, ports, and airports. However, little progress was actually made in this new round of privatizations: a few railway lines were opened to bids, a bill to open the electrical power sector was sent to Congress in early 1999 but by the end of 2001 it still had not been approved, the privatization of secondary petrochemicals is still pending, and the process of privatizing airports was incomplete and only covered a few ones outside of Mexico City.

Coming in the midst of a deep recession (domestic demand fell 13 percent in 1995), the 31 percent devaluation of the peso in real terms gave extraordinary impetus to exports, which rose by 30 percent. Interviews with export-oriented companies show that not only did the pace of

investment not drop, it held steady and even increased in some sectors. This implies that the drop in aggregate capital formation that took place in 1995 was due to low investment by non-exporting companies.

The fourth period began in 1996. During this period, aggregate investment has grown at two-digit levels following the drop in 1995, although only in the late 1980s did it overtake the peak it reached at the beginning of that decade. The vigor of foreign direct investment has been remarkable, but it has only focused on certain branches of the economy. Thus, while some sectors have been able to restructure rapidly, others have lagged severely and seem incapable of surviving the onslaught of foreign competition.

The recovery of investment at the sectoral level has been markedly unequal. Although definitive figures for recent years are not available, qualitative data gathered in interviews point to an increase in the segmentation that has been visible in the Mexican economy since the mid-1980s. Export-oriented activities — including the maquiladora industry and indirect exporters — appear to have maintained their strong growth in the late 1990s, which helps to account for the penetration of Mexican exports in international markets. This segment of the economy comprises a small group of companies that are typically large or midsize, are either transnational or linked to leading foreign companies, and have access to foreign financial resources.

The structure of capital formation by source shows a growing tendency toward investment in machinery and equipment, which in turn indicates a trend toward modernized production. This type of investment as a proportion of total investment is at one of its highest points in thirty years, reflecting the need for upgraded equipment to satisfy increased demand and to meet foreign competition.

The trend by type of actor shows the decreasing importance of public investment, although the federal government still accounted for 25 percent of total investment in 1996. The destination of this investment has also changed: whereas in the mid-1980s nearly 10 percent of public investment went to industry, ten years later industry received less than 1 percent. This reallocation was an explicit aim of government policy-an effort to avert competition between the state and the private sector over financial resources and factors of production.

Although the slow formation of fixed capital in Mexico since the launching of the economic reform process can be attributed in part to the uncertainty inherent in any transition, it is nevertheless a matter for concern. Gross capital formation grew by an annual average of only 6.1 percent in real terms from 1988 to 2000. Assuming a capital depreciation rate of 5 percent a year, the level of net fixed capital stock in 2000 was not much higher than it was when the reforms were first being implemented. Even taking into consideration the fact that comparisons at constant prices tend to underestimate investment drive (because they do not take into account the effects of modernizing capital stock and technological progress), it is clear that investment was slow to respond to the new, more competitive environment. The fragility of the capital formation process accounts in large part for the modest economic growth of the past ten years, and was again evidenced in 2001, when investment collapsed 4.8% in real terms -while GDP decreased 0.1%.

Though it is still too early to tell whether the collapse of aggregate investment in 2001 will be followed by its strong recovery, (as it happened in 1996 to 2000 when annual growth rates were in the double digits) most analysts agree that investment will not stage a strong expansion in 2002. In any case, a new phase of vigorous fixed capital formation is required for Mexico's economy to reach high growth rates over the long term. Although GDP and aggregate fixed capital formation,

[5] The lack of disaggregated information on investment after 1994 and the need to assess the impact of liberalizing reforms on the behavior of economic agents prompted the authors to conduct interviews with individual businessmen, companies, and business chambers, the results of which are set forth in Máttar 2000 and Moreno-Brid 1999.

and foreign direct investment performed better in the 1990s than in the "lost decade", their performance is still wanting. The current economic slowdown, due to a large extent to the stagnation of the US economy, has proven that Mexico's growth path is fragile. In particular, it seems that if the Mexican economy is to enter a path of strong and persistent expansion it will be necessary to: a) strengthen the linkages of the export sector with the rest of the domestic productive activities, b) avoid the tendency to continue the appreciation of the real exchange rate, and c) solve the critical state of the country's banking system.

II. Foreign Direct Investment

Foreign direct investment has played an increasingly important role in the dynamics of investment in Mexico. The FDI/GDP ratio rose from 1.4 percent in the 1980-1985 period to 1.8 percent in 1986-1993 and 3.4 percent in 1994-2000, while the share of FDI in gross fixed capital formation increased from 3.2 percent to 9.1 and 16.3 percent, respectively, for these periods.[6]

These figures reflect the presence of two factors that have characterized FDI growth during the past two decades: the success of the Mexican government's efforts to attract greater flows of foreign investment in the context of the economic reform process that began in the mid-1980s, and Mexico's progressive integration into the North American economic bloc, which began gathering momentum during the first half of the 1990s. The liberalization of regulations governing foreign investment acted as a catalyst by opening up areas that were previously the domain of the state or of Mexican citizens, while also reducing transaction costs and increasing investors' security. Nevertheless, Mexico's investment regulations are not as liberal as those of other large and midsize countries in the region (Argentina, Chile, and Venezuela, for instance). Mayorga's review of national regulations (1996) shows that in some of these countries there is no obligation to provide

[6] Calculations based on Banco de México data. The means for 1980 and 1981— the last two years of the petroleum boom — were 0.8 percent and 3.0 percent. respectively. These percentages were much lower than those for the 1986-1993 period.

information on investments, nor is there a government agency specializing in FDI control and supervision. Sectoral rules are also far less restrictive.

The 1990s saw an upturn in FDI both in Mexico and in the other large economies of Latin America. [8] Its momentum was such that by the end of the decade, the total net inflow of FDI to the whole region was ten times higher than in 1990. Mexico and Brazil benefited significantly from this increase in FDI flows; their combined share of the Latin American total rose from 48 percent in 1990 to 65 percent in 2000 (see table 2).

Net flows of FDI to Mexico in the 1990s were the highest among Latin America's largest economies and in 1996-2000 were only surpassed by Brazil, when the latter's privatization of state-owned companies reached its peak (table 2). As was the case in Mexico at the outset of the 1990s, Brazil's privatizations played a lead role in increasing FDI flows to that country. According to preliminary information, in 2001 Mexico actually surpassed Brazil as a recipient of FDI.

Table 2 NET INFLOWS OF FOREIGN DIRECT INVESTMENT TO LATIN AMERICA, 1990-2000

(Millions of U.S.dollars)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Mexico	2 549	4 742	4 393	4 389	10 973	9 526	9 186	12 831	11 312	11 786	12 950
Brazil	989	1 103	2 061	1 292	3 072	4 859	11 250	19 650	31 913	32 659	30 250
Argentina	1 836	2 439	4 012	3 261	3 107	5 315	6 522	8 755	6 670	23 579	11 957
Total ALADI member countries [a]	7 297	11 841	13 390	12 783	26 280	27 789	41 339	61 125	66 025	85 571	67 191
Mexico's share of total (percent)	34.9	40.0	32.8	34.3	41.7	34.3	22.2	21.0	17.1	13.7	19.3

Sources: CEPAL 1998 and 2001.

[a] The Latin American Integration Association (ALADI) includes Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela.

Short-term capital flows to Mexico were also highly dynamic in the first half of the 1990s. Unlike direct investment, however, they collapsed in 1995. Portfolio investment (PI) reached a high of almost $29 billion in 1993, seven times the level of FDI that year. However, the economic crisis that followed the peso devaluations of 1994-1995 led to a downward spiral in PI, producing a negative flow amounting to almost US$10 billion in 1995. From 1996 to 2000, flows turned generally positive again, although they fluctuated substantially and declined following the global financial crisis that erupted in Thailand in 1997. At any event, the contrary trends between direct investment and portfolio investment have made current-account financing sounder than it was at the beginning of the 1990s. In fact, the ratio between PI and FDI at the end of the 1990s — with

8 Mexico's December 1993 law on foreign investment prohibited foreign participation in nineteen activities. Thirteen of these were designated as the sole domain of the state: (1) petroleum and other hydrocarbons, (2) basic petrochemicals, (3) nuclear-energy generation, (4) transmission and supply of electric power as a public utility, (5) mining of radioactive minerals, (6) satellite communications, (7) telegraphy, (8) wireless telegraphy, (9) postal services, (10) railways, (11) issuing of bank notes, (12) coin minting, and (13) control, supervision and surveillance of ports, airports, and heliports. Those areas reserved for Mexicans or Mexican companies — through a clause that excludes foreigners — were: (1) marketing of gasolines and natural gas, (2) broadcasting services, radio and television (except cable television), (3) credit unions, (4) development banking institutions, (4) rendering of professional and technical services, and (6) overland passenger, tourist, and freight transportation. The 1993 law was modified in December 1996 (together with laws and regulations governing specific sectors) to make the legislation compatible with decisions regarding the privatization of communications, railways, and airports, as well as to allow greater flexibility for investment in the financial sector. The regulations issued under this law were amended in September 1998 in order to expedite administrative procedures for investors (CEPAL 1998; Moreno-Brid 1999). These are the members of the Latin American Integration Association (ALADI).

nearly eight dollars of FDI entering Mexico for every dollar of PI — was the opposite of the trend visible during the first half of that decade.

Although sales of state-owned assets have played a significant role in stimulating investment inflows to Latin America, purchases of private assets have also been important. In 1994-1996, foreign investors were inclined to invest in creating new assets for major investment projects and in modernizing companies they had already established in the region or had acquired as a result of privatizations. There after, in contrast, investment focused mainly on acquiring existing assets, as it had at the outset of the decade. By the end of the decade more than 70 percent of FDI inflows in the member countries of the Latin American Integration Association (ALADI) were for investment in existing assets (CEPAL 1998, 2000). In the case of Mexico, this trend has been further reinforced in 1998-2001, with more than 50% of its FDI linked to the purchase of the private banking system.

Information gathered at the firm level confirms this process of asset restructuring. A survey by América Economía found that the presence of national, privately owned companies in the sales of the one hundred largest industrial concerns in the region dropped from 45.9 percent in 1990 to 38.1 percent in the late 1990s, while foreign firms increased their share from 45.9 to 60.7 percent. Although the strong growth of the automobile industry accounts for the increased foreign presence in 1990-1994, during the following three-year period changes in equity were mainly due to foreign investors' acquisitions of large national enterprises (Garrido and Peres 1998). This was particularly evident in Argentina, Brazil, and Mexico, but a similar process took place in Chile when its growth rate dropped in 1998.

Foreign investors' acquisition of private assets was particularly significant in Argentina and Mexico in 1997, when such operations made up 97.5 percent and 62.3 percent, respectively, of total FDI inflows. Brazil accounted for the highest sales amount in absolute terms (US$19.7 billion, or 27.9 percent of total FDI), and Chile and Venezuela each accounted for over 30 percent of total FDI. In Mexico, an estimated US$7.8 billion (out of a total $12.5) billion in foreign investment stemmed from net sales of local private companies. Acquisitions were mostly in the fields of telecommunications (38 percent) and beverages and tobacco (30 percent), and most (78 percent) were carried out by U.S. investors (CEPAL 1998). As mentioned above, since then and up to 2001, acquisition of existing assets — especially the sale of the private banking system — was a major incentive for FDI to Mexico.

In sectoral terms, the investment strategies that foreign companies follow in Latin America are driven by four factors: the search for raw materials, a desire to establish export platforms, the need for guaranteed access to national markets, and the quest for strategic advantages (such as long-term technological or marketing partnerships). Of these factors, the first three are by far the most powerful, given that strategic advantages are not a strong stimulus for investment decisions in the region. It is also important to differentiate between manufactured goods and services when considering the role of access to national markets (table 3).

Despite its simplicity, table 3 reveals two significant trends. The first is Mexico's prominent role as an export platform (like Brazil and, to a lesser extent, Argentina in the Mercosur) for the automobile industry [9] and (together with the Greater Caribbean) for exports of ready-made clothing and electronic products to the United States. The second is the services sector's importance in foreign companies' regional strategies.

[9] It is important to bear in mind that Mercosur holds far less importance for Brazil-based automotive firms than North America does for Mexico-based exporters.

Manufactures predominate in the sectoral composition of FDI in Mexico, averaging 49 percent of the total in 1981-1993 and rising to approximately 63 percent in 1994-2000. [10] The rise was mainly due to increased investment in maquiladora activities; imports of machinery and equipment rose from 17.8 percent of total FDI in 1994 to 28.3 percent in 2000. In 1993-2000, gross fixed investment in maquiladoras grew at an average of around 30 percent a year, for a cumulative total over US$22.2 billion (the great majority was foreign investment) or 12 percent of the national total. [n] In 1994-2000, foreign investment within the manufacturing industry focused on the machinery and equipment sector (47 percent of the total), particularly automobile and auto parts production, electronic goods, and electrical materials, while investment in food, beverages, and tobacco production saw a strong increase due to substantial sales of private domestic assets to foreign concerns. [12]

With regard to the sources of FDI, trends have been very stable. As in previous decades, the United States was the main country of origin, accounting for more than 60 percent of the total in 1981-2000, followed at a substantial distance by the countries of the European Union (18 percent). The most important changes that have taken place following the implementation of the NAFTA in 1994 are, first, United States' rising share (40 percent) to reach 86 percent of total FDI in the year 2000. Second, Canada, the European Union and Japan reduced their share (2, 17 and 2.3 percent respectively). Third, notwithstanding the dynamism of their investments in maquiladora plants Korea contributed with only 0.2% of Mexico's FDI these years (1994-2000).

Sales by foreign companies have been the main component of Mexico's ever-increasing exports of manufactures since the mid-1980s. Between 1993 and 1996, manufactures rose from 47.8 to 56.2 percent of the total, approximately equal to all nonpetroleum exports in 1986-1987 (53.1 percent) (Peres 1990). Mexico's international position has been strongly determined by the growth of foreign companies' exports, a trend that became evident almost a decade before the NAFTA but that has been significantly reinforced by this trade agreement (Calderón, Mortimore, and Peres 1996).

Firms with foreign investment also account for most of the exports with medium or high technological content, and as such they have been instrumental in paving the way for an international position based on higher technological quality. Nevertheless, there is still a long way to go in strengthening internal linkages in the Mexican economy to ensure that the impetus from FDI has a broad impact on the national productive apparatus and becomes an engine of sustained economic growth.

[0] These figures are not exactly comparable. The FDI registered in Mexico includes: (1) amounts reported to the National Foreign Investment Registry Office, (2) provision of capital for new companies, (3) foreign-investor trust funds, (4) transfers of stock from nationals to foreigners, (5) imports of capital assets (fixed assets) by maquiladora plants, (6) ploughing back of profits by FDI companies, and (7) the amounts involved in accounts between companies (debts and loans between parent companies). Prior to 1994, data were only available for the first three of these categories.

[1] The maquiladora export industry — the only sector that witnessed persistently, high growth in 1980-2000 — has been the most dynamic sector of the Mexican economy since the early 1980s. Its development has stemmed from the synergy derived from a combination of five strategic factors: (1) a highly deregulated legal framework in comparison to the rest of the national economy, (2) the wide gap between wages in the United States and Mexico, which has acted as a source of competitiveness, (3) its geographical location, which translates into low transport costs due to the proximity of U.S. production and consumption centers, (4) the NAFTA, and (5) the U.S. economy's high, sustained rate of growth during the 1990s.

[2] These include the sale of Cigarrera La Moderna to British American Tobacco, Anheuser-Busch's acquisition of 37 percent of the Modelo brewery, and the sale of 21 percent of Cigarrera La Tabacalera Mexicana (CIGATAM) to Phillip Morris (CEPAL 1998).

Table 3

FOREIGN COMPANIES' STRATEGIES IN LATIN AMERICA AND THE CARIBBEAN, BY SECTOR

	Business Strategy		
	Access to Raw Materials	**Export Platform**	**Access to National Market**
Commodity-producing sectors	*Petroleum and gas:* Venezuela, Colombia, and Argentina *Minerals:* Chile, Argentina, and Peru		
Manufacturing		*Automobiles:* Mexico and Mercosur *Electronics:* Mexico and Greater Caribbean *Clothing:* Mexico and Greater Caribbean	*Chemicals:* Brazil *Agroindustry:* Argentina, Brazil, and Mexico *Cement:* Colombia, Dominican Republic, and Venezuela
Services			*Financial:* Brazil, Mexico, Chile, Argentina, Venezuela, Colombia, and Peru *Telecommunications:* Brazil, Argentina, Chile, Mexico, and Peru *Electricity:* Colombia, Brazil, Argentina, and Central America *Gas distribution:* Argentina, Brazil, Chile, and Colombia

Source: CEPAL 1998.

III. Investment in the Manufacturing Sector

Under the import-substitution-industrialization model, fluctuations in GDP were more pronounced for manufacturing than for the economy as a whole. This cyclical behavior stemmed from the manufacturing sector's accelerating or constraining action on the economy via its backward and forward linkages. Gross fixed capital formation in manufacturing has historically been in line with GDP trends, but with broader fluctuations than in the economy as a whole.

Medium- and long-term trends regarding investment/GDP ratios have been similar for manufacturing and for the economy in general, [13] although manufacturing has displayed sharper fluctuations (figure 1). In essence, these shifts reflect the different phases in Mexico's economic performance.

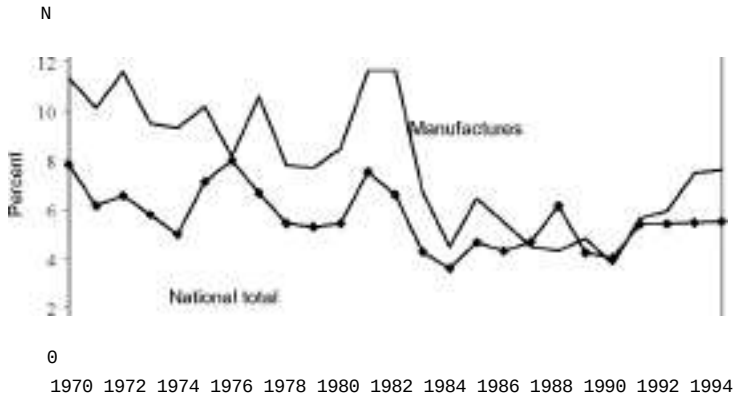
Investment and industrial output grew in a sustained manner from the post-World War II period to the early 1980s, except for a brief period in 1976-1977 following a devaluation of the peso. During the first half of the 1970s, the pace of manufacturing growth slowed

[B] The analysis of investment dynamics in manufacturing is based on data from the Banco de México's Survey of Fixed Capital Stocks and Formation (Banco de México n.d.) and on interviews with representatives of business chambers and executives whose companies have generally been successful in reconverting to a focus on exports. Unfortunately, Banco de México stopped carrying out this survey in 1996.

[H] The total investment/GDP ratios in figure 4.1 are low because they are based solely on investment data taken from the sample in Banco de México's capital stock survey and on GDP data for the whole manufucaturing industry as reported in the national accounts data.

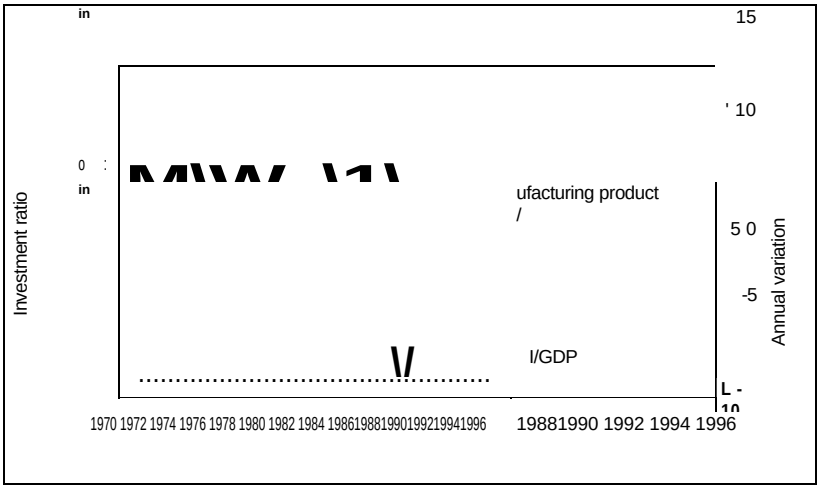
and its investment/output ratio dropped owing to weak fixed capital formation (figures 2 and 3). This was viewed as a symptom of the obsolescence of the ISI model.

Figure 1
FIXED INVESTMENT AS A PROPORTION OF TOTAL GROSS DOMESTIC PRODUCT AND MANUFACTURING-SECTOR PRODUCT IN MEXICO, 1970-1994
(Percent)



Source: Authors' calculations based on Banco de México n.d. and national accounts system data from the Instituto Nacional de Estadística, Geografía e Informática (INEGI).
Note: Based on inflation — adjusted values of total gross domestic product and manufacturing — sector product.

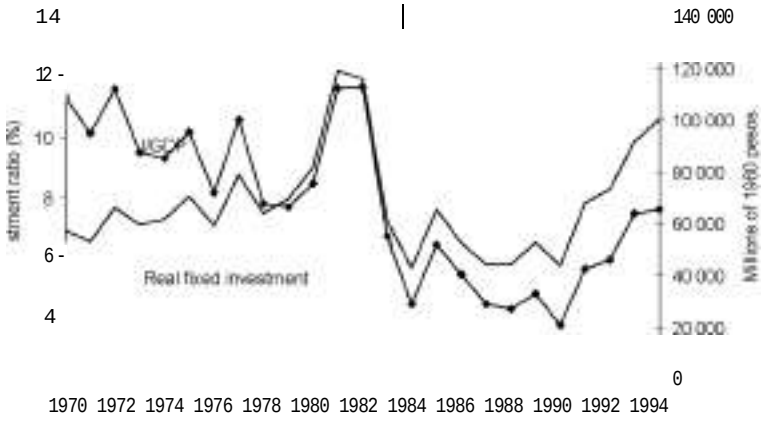
Figure 2
RATIO OF INVESTMENT TO TOTAL OUTPUT AND GROWTH OF MANUFACTURING PRODUCT IN MEXICO, 1970-1996
(Percentages based on data at 1980 prices)



Source: Authors' calculations based on Banco de México n.d. and national accounts system data from the Instituto Nacional de Estadística, Geografía e Informática (INEGI).

Figure 3

GROSS FIXED CAPITAL FORMATION IN MEXICAN MANUFACTURING, 1970-1994 (AT 1980 PRICES AND AS A PROPORTION OF MANUFACTURING PRODUCT)



Source: Authors' calculations based on Banco de México n.d. and national accounts system data from the Institute Nacional de Estadística, Geografía e Informática (INEGI).

In the 1978-1982 period, manufacturing GDP grew at an average annual rate of nearly 10 percent in real terms, and fixed investment reached high levels both in absolute terms and in relation to GDP. This growth period came to an abrupt halt in 1982, when the Mexican government responded to a new external-sector crisis with an adjustment and stabilization program that led to several years of recession. Fixed capital formation in the manufacturing sector plummeted by 50 percent in 1983-1984.

Manufacturing GDP began to recover in 1987 but then lost momentum in 1990-1993, and its modest upturn in 1994 was more than offset by a fall of nearly 8 percent during 1995. Its recovery in 1996-2000 was all the more remarkable given that, for the first time, GDP growth rates exceeded those achieved during Mexico's petroleum boom. For its part, manufacturing investment did not begin rising steadily until 1991, a trend that lasted until 1994. For the 1988-1994 period as a whole, the real gross fixed capital stock in manufacturing grew at an average annual rate of 5.3 percent, a slight increase over the 4.7 percent registered in 1985-1987 but several points below rates prior to the 1980s.

The crisis of 1995 led to a sharp drop in manufacturing investment, which was followed by a recovery in 1996. Although complete data is not available for the most recent years, manufacturing investment is estimated to have dropped 5 percent in 1995 and to have increased 10 percent in 1996."[15]

Information from interviews and other sources indicates that manufacturing investment in new projects dropped off in 1995, although projects already under way (especially export-oriented projects) were continued. This suggests that investment by large companies with links to foreign markets and access to foreign-currency financing increased. There is also a consensus that firms not operating under such favorable conditions did not step up investment. This appears to have

[15] This estimate is based on preliminary and partial figures from the Banco de México survey for 1995 and 1996, which were released in early 1999.

been the case with small enterprises, whose investment plans were blocked by a lack of competitively priced financing.

In the 1988-1996 period, manufacturing absorbed 30 percent of total gross fixed investment, or 16 points less than in 1980-1982, while the trade and services sectors increased their shares. Similar patterns appeared in investment in machinery and equipment for production, where manufacturing accounted for 46 percent in 1980-1982 but only 36 percent in 1988-1994 (Moreno-Brid 1999).

Investment as a share of real GDP has not recovered its 1982 level in most branches of the manufacturing sector, which suggests that an overall upturn in investment in the sector did not accompany the liberalizing reforms. [16] Of the nine branches where the performance of the investment/output ratio and the growth rate of fixed capital stock indicate a substantial accumulation of fixed capital during the 1988-1994 period, only four showed strong real GDP growth. These branches were food commodities, pharmaceuticals, electronics, and automobiles (Moreno-Brid 1999: 89). These branches were also notable for the fact that their investment drive in GDP terms was higher in the 1983-1987 period than in 1970-1976 or even 1977-1982. In other words, even during periods of low domestic sales and weak economic activity, these branches focused on investing for export and adapted their operations to Mexico's increased openness to global competition and decreased dependence on special treatment by the state. Three of these four branches — pharmaceuticals, electronics, and automobiles — had been the object of special industrial promotion programs. Similarly, all three branches have significant amounts of foreign capital; indeed, electronics and automobiles are Mexico's highest FDI recipients.

The great majority of manufacturing branches that have received strong investment flows are characterized by the presence of foreign capital. Preliminary figures for 1994-96 show that branches with the highest FDI shares were also the most dynamic in terms of investment. They produced foods, soft drinks, tobacco, iron and steel, electrical machinery and equipment, electronic appliances, and automotive industry goods. Other branches displaying intense capital formation during the period of liberalizing reforms included metal products; machinery and equipment (electronic appliances, automobiles, and other metal products, excluding machinery); and chemicals, petroleum by-products, rubber, and plastics (pharmaceuticals, soaps, detergents and cosmetics, and other chemical products).

As is the case for the economy as a whole, the sluggish growth of gross fixed investment in manufacturing, at least until 1995, is cause for concern. The meager formation of capital was consistent with growth in manufacturing, which averaged only 3.6 percent per year in 1988-1996.

In general terms, the virtually irreversible nature of fixed capital formation and its dependence on events governed by uncertainty help explain why Mexico's economic reforms have had somewhat inconsistent impacts on investment. [17] The inconsistency arises because the investment response depends on whether relevant agents believe that investment will improve the business climate and what activities and sectors they feel will be favored. Investment decisions are also influenced by whether agents perceive liberalizing reforms as being permanent or

[16] Estimates of investment/output ratios and average annual growth rates of fixed capital stock, real GDP, and exports by manufacturing branch in Mexico prior to and after the reforms are drawn from Moreno-Brid 1999: tables 2-7.

[17] The conventional frame of reference offers an in-depth explanation of investment in advanced economies, but it is inadequate for developing economies, where institutional organization is relatively weak and certain key markets are incomplete and operate under sui generis conditions (Rama 1993; Agenor and Montiel 1996).

temporary. [18] Moreover, although the reforms entail changes that in principle favor private initiative, the transition from one macroeconomic policy approach to another leads to an uncertain business climate, undermines stability, and can lead to the postponement or even cancellation of fixed capital formation projects.

In situations of great uncertainty, fixed capital investment can take a long time to be reactivated. Similarly, once projects to expand or modernize productive capacity have been launched, it may be difficult to put them on hold during temporary fluctuations in the pace of economic activity. According to the businessmen interviewed, in 1995 this inertia in investment was visible in the steel and auto parts industries, where, despite the drastic fall in output, various companies continued projects to expand and modernize their productive capacity.

In order to identify the factors that determine investment in manufacturing, this chapter draws on the results of a series of panel models estimated by Moreno-Brid (1999), based on data on fixed capital formation by branch of activity. This analysis is based on an accelerator model, while also taking into account the effects of the cost of capital use and other variables viewed as pertinent in the literature on the process of fixed capital formation within the context of market-oriented reforms. [19]

The results suggest a positive significant effect of the accelerator — reflected in total manufacturing GDP — and of delayed investment. The real interest rate ratios were negative, in keeping with theory, but they were far from showing a significant influence on investment. This could be due in part to the use in the analysis of the ex post borrowing rate rather than the ex ante lending rate. The internal credit to the manufacturing sector that was deferred for a period showed a positive and significant influence on branches with a strong investment process.[20] In this regard, the entrepreneurs interviewed felt that credit availability, rather than cost, was the financial variable that facilitated or constrained fixed investment, while most of the large companies or groups interviewed stated that foreign rather than domestic financing was most relevant to investment decisions.[21]

Moreover, the results of this econometric exercise show that prices of capital goods exert a significant influence on the prices of other goods. This suggests that, ceteris paribus, cheaper prices

---

[18] Ibarra (1995) examines the impact of the "credibility" of trade liberalization on investment. His findings show the negative and significant effect of the "probability of reversing trade reform" on investment, and his conclusion is that actors' uncertainty concerning the permanence of market-oriented reforms dampened investment in Mexico. As long as investors believe that protectionist measures will again be enacted, they will have little incentive to carry out projects whose profitability depends on the extent of trade liberalization.

[19] The panel analysis was conducted by presupposing "fixed effects." Although this makes it easier to establish estimates, it limits the analysis because it presupposes that the differential effect between the activities considered is only on constant term "a" and not on "P" slopes (Greene 1997: 615). The multicolinearity between certain explanatory variables made it necessary to estimate different alternative specifications for the linear model and contrast them so as to select the most appropriate one. The R^2 of the models estimated in the manufacturing-sector branches with the most dynamic process of capital formation ranged between 0.60 and 0.67, and between 0.40 and 0.50 in the remaining group. The size of the ratios estimated in the different models examined and their levels of significance are reported in Moreno-Brid 1999: tables 13 and 14.

[20] Gelos and Werner (1998) studied the behavior of fixed capital investment in Mexican manufacturing and reached the conclusion that liquidity squeezes had a significant effect on capital formation, particularly in small companies, whereas access to credit did not have a significant influence on public enterprise investment. The study also detected the effect of the real exchange rate on capital formation and noted that exchange rate depreciations tend to dampen formation. On that basis, the authors concluded that financial reform had a decisive impact on manufacturing investment because it broadened private firms' access to bank loans. These findings seem to confirm the conclusions of other studies, which indicate that the scarcity of financial resources acts as a strong constraint on private investment (World Bank 1994). Trigueros, however, states that if one takes into account the impact of foreign funds in Mexico, financial liberalization helped boost consumption more than investment ([1997]).

[21] Large companies have not sought loans from national banks for a long time and do not wish to, because the terms, rates, and amounts they offer are not competitive with those available on international markets. They have earned such access (and the possibility of exchange-rate hedging) through their successful export penetration of world markets. Such companies far prefer taking on foreign, dollar-denominated debt, and they only resort to national banks for very basic services, having stopped viewing them as a source of working capital or fixed investment financing some time ago. In fact, many of these firms are net creditors with domestic banks.

of machinery and equipment acted as an incentive for investment. It should be stressed, however, that to the degree that cheaper prices are accompanied by real exchange rate appreciation, this tends to discourage investment in tradable sectors, because in principle such changes run counter to the local productive apparatus's orientation toward the foreign sector.

With regard to the influence of FDI, the results also suggest that it had a positive, albeit not very significant, effect on total manufacturing investment. There was a complementary effect between public investment and fixed investment in the manufacturing industry, a finding that accords with studies of other developing economies.

The businessmen interviewed by Máttar (2000) and Moreno-Brid (1999) consistently noted the sensitivity of investment in manufacturing to economic growth. They emphasized that the implementation of the NAFTA made the U.S. market more attractive, although they also stated that high and sustained economic growth in Mexico is a requisite for strong fixed capital formation. These businessmen were of the opinion that, although the foreign market has become an important focus of corporate strategies, a growing domestic market is essential for strengthening fixed capital investment in manufacturing. Moreover, a high percentage of the individuals interviewed stated that ownership insecurity effectively discourages both national and foreign investment, while also skewing the capital formation process and reducing international competitiveness.

IV. Impacts of the Investment Pattern

1. The Change in Industrial Structure

Industrial investment is strongly concentrated in four branches, which together accounted for 84 percent of total gross fixed investment in manufacturing between 1988 and 1994 (table 4). These subsectors were: metal products, machinery, and equipment (29.4 percent of total investment); chemicals and plastics (20.5 percent); food, beverages, and tobacco (20.3 percent); and basic metals (13.8 percent).

The concentration of investment in these branches was almost the same in 1983-1987 as in 1988-1994, and we estimate that the pattern remained steady in 1994-1998. These branches were also those receiving the most investment in 1977-1982 (the years of the previous upturn in manufacturing), accounting for 76.6 percent of investment in nonpetroleum manufacturing during those years. Despite this concordance, on comparing the composition of gross fixed investment in 1977-1982 and 1988-1994, certain changes indicate a shift in the structure of the productive apparatus to adapt to Mexico's new competitive environment. During the latter period, the metal products, machinery, and equipment branch increased its lead owing to the growth of the automobile industry, whereas the basic metals industries' share decreased, partly due to declining investment in the

casting and iron and steel industries, which had been strongly promoted during the petroleum boom of the late 1970s and early 1980s. [22]

Table 4
COMPOSITION OF FIXED INVESTMENT IN MEXICO'S MANUFACTURING SECTOR BY DIVISION, 1970-1994
(Percentages)

	1970-1976	1977-1982	1983-1987	1988-1994
Food, beverages and tobacco	15.9	16.0	15.1	20.1
Textiles, clothing and leather	8.7	7.3	7.3	4.8
Wood and wood products	1.5	1.6	1.0	0.6
Printing and publishing	4.7	5.1	5.4	4.6
Chemicals, rubber, and plastic	27.2	15.0	20.3	20.5
Nonmetallic mineral products	10.4	8.2	8.3	5.2
Basic metals	11.9	22.8	12.0	13.8
Metal products, machinery and equipment	18.8	22.8	29.6	29.4
Other manufactures	0.9	1.2	1.0	1.0
Manufacturing industry[a]	100.0	100.0	100.0	100.0

Source: Authors' calculations based on Moreno-Brid 1999, with data in constant 1980 pesos.
[a] Not including the petroleum and petroleum by-products, basic petrochemicals, and fertilizer branches.

In more disaggregated terms, the composition of fixed investment in manufacturing has changed following Mexico's economic reforms. One might expect that this change and the rise in fixed capital formation would have led to a new industrial matrix in Mexico, one more in keeping with the country's open economy and the public sector's reduced involvement in the productive sphere. To estimate the magnitude of the change in the productive apparatus, Moreno-Brid (1999) calculated the values for Mexico of the United Nations Industrial Development Organization's (UNIDO) structural-change index, which measures shifts in industrial structure between two points in time. The results, based on two-digit data, show a change in manufacturing GDP structure of 10.2 percent in 1984-1994 and 9.2 percent in 1987-1994. In other words, one-tenth of the structure of Mexico's total manufacturing GDP in 1984 or 1987 had changed by 1994. The scant difference between the structural-change index in 1984-1994 and 1987-1994 suggests that much of the manufacturing restructuring that took place following market-oriented reforms occurred after 1987.

The structural-change index was 10.2 percent for 1970-1981, the same as for 1984-1994. In view of the radically different economic policy approaches adopted in these two periods, it could be assumed that the structural recomposition of GDP would run in different directions. In other words, one would expect that the industrial branches benefiting most from the import-substitution development model would be different from those on the rise under the new model, based on open competition from abroad and a lack of state supports. However, the disaggregated results show that the manufacturing GDP share of two-thirds of all branches changed in the same direction in 1970-1981 as in 1984-1994. Furthermore, sixteen of the eighteen branches whose share changed

[22] Public-sector iron and steel enterprises were privatized in the early 1990s, and the industry has since become highly competitive as a result of investment in modernization, even though its size has been reduced in absolute terms.

the most in 1984-1994 moved in the same direction in 1970-1981, that is, their previous trend was strengthened. For example, the three branches that most increased their GDP share in 1987-1994 — automobiles, motors and accessories, and non-electrical machinery and equipment — were also those whose share increased the most in 1970-1981.[23]

At that level of disaggregation, more than a decade of economic reform appears not to have radically changed the momentum in the makeup of manufacturing activity that had been under way since the 1970s and the oil boom. The figures presented above also seem to imply that the process of transformation and modernization has concentrated on large, export-oriented companies with access to international financing.

2. Export Performance

The sluggish growth of manufacturing GDP over the past ten years stands in contrast with Mexico's dynamic export performance. During the first years of the economic reform process, manufacturing exports increased sharply, spurred by exchange rate depreciation, low domestic demand, and the pressing need for companies to focus on foreign markets in order to secure foreign exchange. The growth rate for manufacturing exports overtook that of manufacturing GDP in 1990, although the export drive subsequently lost impetus, partly due to the peso's appreciation. Exports regained their earlier momentum from 1995 to 2000, this time as a result of a new peso devaluation and a strong foreign demand.

In the 1988-2000 period, manufacturing exports grew at an annual average rate of 15 percent in real terms, four times the sector's average GDP growth. Manufacturing exports (excluding maquiladoras) rose from less than 10 percent of the sector's GDP in the 1970s to 27 percent during the second half of the 1980s, 34 percent in 1994, and over 60 percent in recent years. Exporters have focused on dynamic markets in developed countries, which now absorb more than 90 percent of Mexico's total exports. Several authors have found evidence of Mexican manufacturing exports' increased international competitiveness in the 1980s and 1990s.

In terms of specific sectors, industries in which foreign companies have a strong presence (including maquiladoras) were very important in boosting exports to the United States and Canada in the 1990s (tables 5, 6). Some export items — particularly television sets, measuring equipment, and electricity distributing equipment — also held high market shares. [25] Such exports form part of a drive by U.S.-origin companies to increase efficiency, mainly in the automobile, data-processing, electronics, and clothing industries. Pressures to reduce costs and limit access to the North American market have been key factors in the expansion of productive capacity over the past decade, although some of these U.S.-origin companies (such as automobile manufacturers) had already made significant investments in Mexico.

The "Big Three" U.S. automakers began investing in plant construction and modernization in Mexico during the late 1970s in response to competition from East Asia, and from 1994 to 1996 their investments totaled US$1.4 billion a year on average. These companies, which are the largest car manufacturers in Mexico, had annual sales of US$18.5 billion in 1997; 74 percent of these sales were exports, and 90 percent of exports were to the U.S. market (CEPAL 1998). In 1996 Mexico held 18.8 percent of the U.S. market in commercial vehicles, 10.4 percent in passenger vehicles,

[23] Disaggregated estimates of the structural-change index can be found in Moreno-Brid 1999: table 8.
[24] See, for example, Máttar 1996; Calderón, Mortimore, and Peres 1996.
[25] Eight of the sectors in the table pertain to both the largest export industries and those with the largest market shares. Foreign companies and maquiladoras play a leading role in seven of these sectors: television sets, electricity distributing equipment, freight transport vehicles, electrical circuits, radio sets, electricity generating equipment, and other electrical power plants and machinery.

12.6 percent in motors, and 8 percent in auto parts. Up until 2000, these market shares kept[26] increasing.

Table 5 MEXICO'S MAIN EXPORTS TO THE UNITED STATES AND CANADA, 1985 AND 1998

(Percentage of total exports)

	1995	1998
Passenger motor cars (excluding public service types)	1.0	10.0
Crude petroleum (including from bituminous minerals)	31.5	7.2
Television receivers	0.7	4.3
Motor vehicles for the transport of goods and material	0.7	3.9
Automatic data processing machines	0.03	3.9
Parts and accessories of the motor vehicles	3.2	3.8
Commodities not classified	2.8	3.7
Electrical apparatus for making and breaking electrical circuits	2.0	2.6
Furniture	0.7	2.5
Electrical machinery and apparatus	1.8	2.3
Electric power machinery	1.2	1.8
Outer garments (women's and girls')	0.4	1.7
Outer garments (men's and boy's)	0.5	1.5
Rotating electric plants and parts thereof	0.8	1.5
Measuring, checking, analyzing, control instruments	0.6	1.4
Under garments, knitted or crocheted	0.2	1.4
Outer garments, other articles, knitted/crocheted	0.04	1.4
Non-electric parts and accessories of machinery	0.3	1.1
Other household type, electrical and non-elec. Equipment	0.5	1.1
Manufactures of base metal	0.6	1.0

Source: Authors' calculations based on the CANPLUS computer program.
Note: These were Mexico's twenty highest-ranking exports in 1998. With the CANPLUS software the data reported for 1985 corresponds to the average of the figures for 1984, 1985 and 1986; the same comment applies to the data here reported for 1998.

In clothing manufacturing, foreign firms have benefited from their preferential access to the U.S. market under the NAFTA (SECOFI 1994) to the extent that Mexico's garment exports to the United States have overtaken all international competitors, including China. The NAFTA also stimulated electronics exports, owing to the immediate tariff reduction on imported office equipment and photocopier parts and components, and to the deferred tariff reduction (until 1998) on television sets, computers, and telephone equipment. These cuts, and the prospect of the full enforcement of the NAFTA's rules of origin in 2003, encouraged foreign companies to invest in Mexico as an export platform (CEPAL 1998).

[26] Calculations based on ECLAC's CANPLUS software program.
[27] By the late 1990s, Mexico was supplying more than 13 percent of U.S. garment imports, compared to less than 2 percent in 1985.

Table 6 MEXICO'S SHARE OF U.S. AND CANADIAN IMPORT MARKETS, 1985 AND 1996

(Percentages)

	1985	1998
Television sets	**7.2**	69.5
Equipment for distributing electricity	37.7	58.0
Meters and counters	**0.7**	52.9
Rotating electric plant and parts thereof	11.6	28.5
Electric power machinery	17.5	24.9
Motor vehicles for the transport of goods /materials	1.4	23.9
Ores and concentrates of precious metals, waste	**1.2**	22.1
Elec. apparatus for making and breaking elect. circuits	13.7	17.6
Trailers and other vehicles, not motorized	0.05	16.9
Medical instruments and appliances	5.5	16.3
Under garments, knitted or crocheted	**2.0**	15.9
Outer garments (men's and boy's)	**4.2**	15.8
Furniture and parts thereof	**7.3**	15.2
Glass	**8.7**	15.2
Other household type, electrical and non elec. equipment	**3.2**	15.0
Heating and cooling equipment and parts	**3.2**	**14.8**
Fruit and nuts (not oil nuts) fresh or dried	**5.0**	**14.6**
Electrical machinery and apparatus	**7.0**	**14.5**
Sugar confectionery (except chocalate)	**0.8**	**14.3**
Sanitary, plumbing, heating and lighting fixtures	**6.8**	**14.1**

Source: Authors' calculations based on CANPLUS computer program.
Note: These were the twenty Mexican export products with the largest U.S. and Canadian market shares in 1998.

Notwithstanding the importance of exports in foreign companies' strategies, Mexico's enormous domestic market holds a potential that did not disappear with economic liberalization. This potential is evident in three areas. First, except in crisis years like 1995, the domestic market absorbs between one-third and one-half of output-even in automobiles, the country's main export industry. Second, FDI has a strong presence in the food, beverages, and tobacco industries, both as a result of purchases of national enterprises and from added investment by foreign companies already established in Mexico (PepsiCo., Nestlé, and Coca-Cola, for example). Third, there is an important level of investment in the services sector, particularly in telecommunications and financial services, which were among the most attractive fields for FDI during the 1990s.[28]

In addition to FDI's sectoral dimensions in the Mexican economy and its outstanding role in promoting Mexico's integration into international markets through exports, it is important to assess the technological quality of the country's international integration. Alcorta and Peres (1998) developed a technological specialization index (TSI) that describes the extent to which a country

[28] The privatization of Teléfonos de México and the opening up of the mobile telephone and long-distance markets during this period deserve special mention. Moreover, foreign investment in the banking sector rose sharply after the 1995 crisis; Spanish and Canadian and U.S. banks played a dynamic role in this process.

(or a set of countries) adapts its export structure to changes in world trade in goods with greater or lesser technological content. From a growth perspective, the TSI shows how a country's (or a set of countries') market share changes in high- and medium-technology activities in relation to its share in activities with lower technological content. [30] Table 7 shows the 1977-1995 TSI values for Latin America and the Caribbean as a whole and for Mexico, Argentina, Brazil, and Chile individually, as well as for two sets of countries that serve as a frame of reference (the G7 countries and four high-growth economies in East Asia).

Table 7

TECHNOLOGICAL SPECIALIZATION INDEX FOR LATIN AMERICA AND SOUTHEAST ASIA, 1977-1995

	Latin America and the Caribbean	Mexico	Argentina	Brazil	Chile	G7 [a]	Korea, Singapore, Hong Kong and Taiwan Province of China
1977-1980	**0.17**	**0.55**	0.12	0.25	0.01	2.16	**0.85**
1981-1985	**0.22**	**0.51**	0.13	0.29	0.01	2.12	0.96
1986	**0.29**	**0.78**	0.08	0.32	0.01	1.90	**0.89**
1987	**0.32**	**0.97**	0.07	0.32	0.01	1.82	0.93
1988	**0.34**	**1.06**	0.08	0.33	0.01	1.80	0.99
1989	**0.35**	**1.13**	0.08	0.32	0.01	1.78	**1.05**
1990	**0.35**	**1.18**	0.09	0.30	0.01	1.77	**1.09**
1991	**0.38**	**1.29**	0.09	0.27	0.01	1.76	**1.16**
1992	**0.42**	**1.44**	0.10	0.25	0.01	1.77	**1.26**
1993	**0.45**	1.57	0.09	0.23	0.01	1.73	**1.41**
1994	**0.47**	**1.63**	0.09	0.22	0.01	1.73	1.51
1995	**0.48**	**1.62**	0.07	0.23	0.01	1.67	**1.80**

Source: Alcorta and Peres 1998.

[a] The G7 countries include Canada, France, Germany, Great Britain, Japan, Italy, and the United States. (The European Union joined in G7 summits beginning in 1977.).

Mexico's TSI values are surprising. They more than tripled during the nineteen years in question, whereas Brazil and Argentina show a negative trend over the long term and Chile shows a steady but very low level of technological specialization. Although Mexico's values are strongly dependent on the "maquiladora effect" [31] — exports of sophisticated goods where only the least advanced stages of the assembly process are carried out in the country — its TSI levels and growth

29 A country's (or a set of countries') TSI is calculated as the quotient of market share in sectors of high and medium technology, and market share in light technology sectors. Sectors are defined to three digits of the Standard International Trade Classification (SITC), revision 2. Because the aim is to measure technological specialization, the market used as a reference is that of the OECD member countries—that is, the market closest to the technological frontier. TSI was calculated using ECLAC's CANPLUS computer program.

30 Both absolute TSI values and changes in them are important. A value lower (higher) than 1.0 indicates that a country's export share of markets for goods with high technological content is higher (lower) than its export share of markets for goods with low technological content. An increasing (decreasing) TSI value over time indicates a relatively greater (lesser) share of markets for high-technology goods.

31 The reforms had the effect of making non-maquiladora manufacturers operate more like export maquiladoras. Under these conditions and in the context of falling trade barriers, the ever-increasing imports of inputs, mainly by export-oriented sectors, "maquiladorized" diverse production sectors.

show increasing progress in the quality of its international integration. In this regard, at the beginning of the 1970s Mexico exported shrimp, coffee, cotton, and tomatoes; it became a petroleum exporter at the end of the 1970s; and by the beginning of the 1990s Mexico was exporting automobiles, computers, and electrical and electronic equipment, although in many cases national content was rather low.

The central problem with this development is the sophisticated exports' low level of integration with the rest of the national economy and the reduced linkage effect on other activities and nonexporting agents.

Although this situation is undeniable, the starting point for such an integration is in place in Mexico, unlike the rest of Latin America. Whether or not it becomes the national economy's engine of growth will depend on the development of more solid forward and backward linkages.

This point leads to interesting considerations regarding the maquiladora sector's potential to advance toward more complex activities, incorporating more national value-added into exports by using more domestically produced inputs or developing more sophisticated local activities. Efforts to incorporate domestic inputs and develop local suppliers have had extremely poor results. Nevertheless, recent studies (such as Buitelaar and Padilla 2000) show that some Mexican maquiladora establishments have begun to incorporate their own design elements and research and development, giving rise to "third-generation" maquiladoras. These coexist with first- and second-generation plants, which focus, respectively, on assembly or industrial processing without engaging in technological endeavors. Although this dualism demonstrates the disparity that exists in the maquiladora industry, it also indicates the sector's potential to evade the trap of long-term specialization based solely on comparative advantages stemming from unskilled labor.

Export performance has been closely associated with the vigor of investment at the level of industrial branches. Branches in which capital formation was more (less) dynamic have tended to be among those that stepped up exports more (less) rapidly (table 8). Thus ten of the seventeen branches in the group in which capital formation reacted rapidly between 1988 and 1994 were in the group that increased exports by more than 20 percent a year between 1989 and 1996 (table 8, bottom right square). Of these, fruits and vegetables, other food commodities, other textile industries, electronic appliances, and automobiles were among those branches in which output expanded fastest between 1989 and 1996 (table 9).

Similarly, most industrial branches with low fixed capital investment have been in the group with low export growth. Only two branches with low investment levels — nonelectrical machinery, and transport equipment and material — were among those that most increased exports in 1989-1996, probably because they had idle capacity at the outset of the period. A similar trend is evident when viewing GDP instead of exports: almost half of the branches are in the main diagonal (top left to bottom right) of table 9, suggesting a positive relationship between investment growth and GDP growth.

Table 8

CAPITAL FORMATION IN MEXICO AND GROWTH OF MANUFACTURING EXPORTS, 1980-1990

Annual mean variation of exports, 1989-19962	**Annual Mean Variation in Gross Fixed Capital Stock, 1988-19941 (percent)**		
	Less than 4.3 percent	**Between 4.3 and 6.3 percent**	**More than 6.3 percent**
Less than 10 percent	Hard-fiber spun goods and piece-goods Printing and publishing Rubber products Cement Nonferrous metals Structural metal products	Coffee processing and milling Alcoholic beverages Beer and malt Paper and cardboard Synthetic resins and artificial fibers Automobile motors, accessories	Sugar Other wood products Pharmaceutical products
From 10 to 20 percent	Basic chemicals Soft-fiber spun goods and piece-goods Sawmills	Leather and footwear Plastic articles Nonmetallic products Electrical appliances Other manufactures	Meat and dairy products Tobacco Other chemical products Other metal products (except machinery)
More than 20 percent	Nonelectrical machinery Transport equipment and material	Edible oils Clothing Glass Iron and steel Metal furniture Electrical machinery and appliances Household appliances	Fruit and vegetables Wheat milling Cornflour milling Animal fodder Other food commodities Refreshments and soft drinks Other textile products Soaps and cosmetics Electronic appliances Automobiles

Source: Moreno-Brid 1999: table 12. Note: Annual mean variation in manufacturing exports in 1989-1996 was 14.4 percent (1993 prices); annual mean variation in fixed capital stock in 1988-1994 was 5.3 percent (1980 prices). 1 Calculations for gross capital formation are based on data in 1980 pesos. [a] Export calculations are based on data in 1993 pesos.

Table 9 CAPITAL FORMATION AND MANUFACTURING GROWTH IN MEXICO, 1980-1990

Annual mean variation of manufacturing product. 1989-1996 [a]	Annual Mean Variation in Gross Fixed Capital Stock, 1988-1994 [b]		
	Less than 4.3 percent	Between 4.3 and 6.3 percent	More than 6.3 percent
Less than 2.5 percent	Soft-fiber spun goods and piece-goods Hard-fiber spun goods and piece-goods Sawmills Printing and publishing Rubber products Cement Nonferrous metals Structural metal products Nonelectrical machinery Transport equipment and material Basic chemicals	Coffee processing and milling Edible oils Alcoholic beverages Clothing Leather and footwear Nonmetallic products Metal furniture Electrical appliances	Wheat milling Corn flour milling Animal feed Tobacco Other wood products
From 2.5 to 4.5 percent		Paper and cardboard Synthetic resins, artificial fibers Plastic articles Electrical machinery Automobile motors, accessories Other manufactures	Sugar Refreshments and sofá drinks Pharmaceutical products Soaps and cosmetics Other chemical products Other metal products (except machinery)
More than 4.5 percent		Beer and malt Glass Iron and steel Household appliances	Meat and dairy products Fruit and vegetables Other food commodities Other textile products Electronic appliances Automobiles

Source: Moreno-Brid 1999: table 11, based on INEGI and Banco de Mexico figures.
Note: Annual mean variation in real manufacturing product in 1989-1996 was 3.5 percent (1993 prices); mean annual variation for gross fixed capital stock in 1988-1994 was 5.3 percent (1980 prices).
[a] Gross domestic product (GDP) calculations are based on data in 1993 pesos.
[b] Calculations for gross capital formation are based on data in 1980 pesos.

V. Conclusion

More than ten years after the implementation of reforms designed to make Mexico's private sector the engine of economic development in a market open to international competition, investment has only partially recovered from its collapse at the end of the petroleum boom in 1981. The upsurge in investment during the past decade has not been not strong enough to ensure high levels of sustained economic growth. Moreover, the fragility of its recovery was evidenced in 2001 when both investment and GDP declined in real terms.

The moderate dynamism of investment during the reform process is reflected in modest GDP growth, with fluctuations that have prevented the consolidation of a sustained expansion. Short-lived upswings exert excessive pressure on the trade balance and ultimately stoke foreign exchange crises. It is too early to tell whether the collapse of aggregate investment in 2001 (-5%) means that its dynamism in 1996-2000 — which exceeded 10 percent per annum — was merely an effort to replenish depleted capital stock and therefore is not able to soon usher in a lasting cycle of high investment in fixed capital. If this is the case, the Mexican economy will remain unable to consolidate the high, sustained growth platform that it badly needs.

Although total gross fixed investment, GDP, and foreign direct investment grew vigorously in 1996-2000, their impetus was cut short in 2001. This slowdown shows that there still exist some binding constraints on Mexico's economic growth. The most important of these are the tendency to appreciate the real exchange rate, the

fragility of Mexico's financial system, as well as the recession in the U.S economy and the uncertainty surrounding the timing and speed of its recovery.

A number of factors help explain investment's limited response to market-oriented reforms in Mexico. First, the reforms were implemented when the domestic economy was in deep stagnation, which was further aggravated by strong constraints on foreign and domestic financing. Second, the reforms explicitly aimed at sectoral neutrality and the elimination of all types of incentives, subsidies, or promotion programs for specific activities. The strategy shift also implied a refusal by government to establish measures to promote investment spending as opposed to consumption expenditure. The government's decision not to promote fixed capital formation during the transition period occurred in combination with the uncertainty arising from the change in economic development strategy, which led to the postponement or interruption of investment projects. Third, the elimination of sectoral incentives had a strong impact on the traditional lead sector in capital formation — manufacturing — because it had been the most favored under the model of import substitution and state intervention. The loss of preferential treatment thus placed pressure on manufacturing's relative rate of return, which curbed investment.

A fourth factor was the appreciation of the real exchange rate in 1988-1994. In theory, real exchange-rate appreciation in developing countries encourages fixed investment, because it lowers the relative prices of imported machinery and equipment. However, it also changes relative prices by encouraging the reassignment of factors toward the production of non-tradable goods and services. Finally, a fifth factor that also had a negative effect was the fall in public investment, because "crowding in" between public and private investment has historically been more predominant than "crowding out."

In general terms, then, economic reforms have so far not made it possible to raise long-term economic growth rates to satisfactory levels or to eliminate external imbalances and balance of payments crises.[32] Although the reforms have encouraged FDI in certain sectors, they have not led to a rise in fixed capital formation in the economy as a whole. The aim of making the private sector the pivot of economic development has only been partially achieved, and the economy has become more strongly segmented between large export-oriented companies with strong links to foreign capital and smaller producers focusing on domestic demand and facing significant constraints on their development. The result is a pattern of economic development that has yet to show sufficient strength to absorb the labor supply or to ensure that balance of payments crises will not recur.

The reforms have given rise to opportunities for simultaneously generating and destroying productive capacity. By opening markets and reducing state intervention, they have fostered activities favored by redefined price vectors and the relative profit margins derived from the new macroeconomic context. At the same time, however, liberalizing reforms have posed a threat to enterprises that have, in principle, become unprofitable. Real exchange and interest rates play a key role, and their evolution may act as an incentive or as an obstacle to increasing the international competitiveness of the manufacturing industry. The behavior of these variables will determine the reforms' impact on the long-term growth of the Mexican economy.

Without underrating the Mexican economy's export performance and the vitality of FDI in some sectors, it must be stressed that import penetration has also been remarkable. The increasing income elasticity of imports that began in the mid-1980s continued through the 1990s, and that high elasticity runs counter to expectations that the wave of imports would lose strength as

[32] Mexican consumers became accustomed to having access to foreign goods.

Some reforms had enormous negative economic and social costs and had to be reversed. For example, the privatization of the commercial banking system and the leasing of highways to the private sector soon resulted in a spectacular deterioration in these activities' performance, forcing the government to make special financial rescue arrangements.

Behind the high foreign content in Mexico's exports lie disrupted domestic chains of production, arising from the displacement and elimination of companies that previously produced for the domestic market. Investment to rebuild these production chains or create others in different industrial sectors is crucial to the country's economic development. [33] Fixed capital formation and the intermeshing of the industrial fabric will determine to what extent the export orientation of industry contributes to the high, sustained growth of the economy as a whole, thereby averting recurring foreign exchange crises. In this regard, market integration and growth are a requisite for fixed capital formation, to which end it will be essential for foreign investment to focus more on creating new productive activities than on acquiring established enterprises that can serve as outlets for imported goods.

The Mexican economy is still not registering growth rates on a par with the historically high rates of the past. Even though GDP growth resumed in the 1990s — finally leaving behind the economic stagnation of the 1980s — its average rate of expansion was rather low. Even this moderate rhythm of expansion (averaging around 3 percent per year) has not yet proven to be sustainable. Indeed, it had already lost momentum in 1998 due to the impact of the East Asia crisis on international financial and trade markets. And, moreover, its impetus was abruptly cut short in 2001, with GDP falling 0.1 perent in real terms.

It is still too early to tell whether the — albeit moderate — recovery that the Mexican economy is expected to stage in 2002, will be sustained over the medium term, or whether measures to curb demand will be needed to prevent the resurgence of balance of payments as well as fiscal problems, particularly if the U.S.' economic slowdown persists. Either way, giving impetus and continuity to fixed capital formation remains an indispensable condition of sustained economic growth in the medium and long term.

[33] Concern over this issue was reflected in renewed discussions on industrial policy during the Zedillo administration (Máttar and Peres 1997; SECOFI 1996).

References

Agenor, Pierre-Richard, and Peter J. Montiel. 1996. Development Macroeconomics. Princeton, N.J.: Princeton University Press. Alcorta, Ludovico, and Wilson Peres. 1998. "Innovation Systems and Technological Specialization in Latin America and the Caribbean," Research Policy 26: 857-881. Aspe, Pedro. 1993. El camino mexicano de la transformación económica. Mexico City: Fondo de Cultura Económica. Banco de México. n.d. Encuesta de acervos y formación bruta de capital. Mexico: Banco de México. Various years. Buitelaar, Rudolf, and Ramón Padilla. 2000. "Maquila, Economic Reforms and Corporate Strategies," World Development 28 (9): 1627-42. Special issue edited by Wilson Peres and Nora Reinhard. Calderón, álvaro, Michael Mortimore, and Wilson Peres. 1996. "Mexico: Foreign Investment as a Source of International Competitiveness." In Foreign Direct Investment and Governments: Catalysts for Economic Restructuring, edited by John Dunning and Rejeesh Narula. London: Routledge. CEPAL (Comisión Económica para América Latina y el Caribe). 1998. La inversión extranjera en América Latina y el Caribe. Informe 1998. Santiago, Chile: CEPAL. ___2000. Foreign Investment in Latin America and the Caribbean: 2000. Santiago, Chile: CEPAL. Dussel, Enrique. 1999. "La inversión extranjera en México, Reporte 1999." Prepared for the Unidad de Inversiones y Estrategias Empresariales of the Economic Commission for Latin America and the Caribbean. Santiago, Chile: CEPAL.

Escobar de Medécigo, Rebeca. 1999. El cambio estructural de las telecomunicaciones y la inversión: el caso de Mexico. Serie Reformas Económicas, no. 17. Santiago, Chile: CEPAL.
Garrido, Celso, and Wilson Peres. 1998. "Grandes empresas y grupos industriales latinoamericanos en los años noventa." In Grandes empresas y grupos industriales latinoamericanos. Expansión y desafíos en la era de la apertura y la globalización, edited by Wilson Peres. Mexico City: Siglo Veintiuno. English version appears in ECLAC Review 66 (December 1998). Gelos, Gastón, and Alejandro Werner. 1998. "La inversión fija en el sector manufacturero mexicano 1985-94: el rol de los factores financieros y el impacto de la liberalización financiera.".Documento de Investigación No.9805, Mexico City: Banco de México. . Greene, William H. 1997. Econometric Analysis. 3d ed. Englewood Cliffs, N.J.: Prentice Hall. Ibarra, Luis 1995. "Credibility of Trade Policy Reform and Investment: The Mexican Experience," Journal of Development Economics 47: 39-60. Lustig, Nora. 1998. Mexico: The Remaking of an Economy. Washington, D.C.: Brookings Institution Press. Máttar, Jorge. 1996. "Desempeño exportador y competitividad internacional: algunos ejercicios CAN para Mexico," Comercio Exterior 46 (3): 193-202. Máttar, Jorge. 2000. "Inversión y crecimiento durante las reformas económicas", in Fernando Clavijo (ed.). Reformas económicas en México, 1982-1999, Lecturas de El Trimestre Económico, No. 92, Mexico City: Fondo de Cultura Económica Máttar, Jorge, and Wilson Peres. 1997. "La política industrial y de comercio exterior en Mexico." In Políticas de competitividad industrial: América Latina y el Caribe en los años noventa, edited by Wilson Peres. Mexico City: Siglo Veintiuno. Mayorga, Rebeca. 1996. "Foreign Investment Regimes in Countries within the Hemisphere: Legal Challenges." Presented at the seminar "Políticas de inversión y reglas multilaterales de inversión en América Latina," Río de Janeiro, March. Moreno-Brid, Juan Carlos. 1995. "Ahorro externo, inversión y crecimiento económico en México: 1989-94." Santiago, Chile: CEPAL. Manuscript.
___ 1999. "Reformas macroeconómicas e inversión manufacturera en Mexico."Serie Reforma económicas, No. 47, Santiago, Chile: CEPAL..
___ 1999. "Mexico's Economic Growth and the Balance of Payments Constraint: A Cointegration Analysis," International Review of Applied Economics 13 (2).
___ 2001. "Essays on Economic Growth and the Balance-of-Payments Constraint; with special reference to the case of Mexico" Faculty of Economics and Politics, University of Cambridge, U.K. Ph.D. Dissertation. Peres, Wilson. 1990. Foreign Direct Investment and Industrial Development in Mexico. Development Centre Studies. Paris: Organisation for Economic Co-operation and Development.
Rama, Martin. 1993. "Empirical Investment Equations for Developing Countries." In Striving for Growth after Adjustment: The Role of Capital Formation, edited by Luis Serven and Andrés Solimano. Washington D.C.: World Bank. Rodríguez, Víctor. 1999. Impacto de la reforma económica sobre las inversiones de la industria eléctrica en México: el regreso del capital privado como palanca de desarrollo. Serie Reformas Económicas, no. 18. Santiago, Chile: CEPAL. Ros, Jaime. 1991. The Effects of Government Policies on the Incentives to Invest, Enterprise Behaviour and Employment: A Study of Mexico's Economic Reforms in the Eighties. Notre Dame, Ind.: University of Notre Dame. SECOFI (Secretaría de Comercio y Fomento Industrial). 1994. Tratado de Libre Comercio entre México, Canadá y Estados Unidos. Mexico City: SECOFI.
___ 1996. Política industrial y comercio exterior. Mexico City: SECOFI.
___ 1998. "Informe estadístico sobre el comportamiento de la inversión extranjera directa en Mexico (January-December 1997)." Mexico City: SECOFI, April.

Scheinvar, Isaac. 1999. Las carreteras y el sistema portuario frente a las reformas económicas. Serie Reformas Económicas, no. 20. Santiago, Chile: CEPAL. Torres, Ramón Carlos. 1999. México: impacto de las reformas estructurales en la formación de capital del sector petrolero. Serie Reformas Económicas, no. 19. Santiago, Chile: CEPAL.
Trigueros, Ignacio. 1997. "Flujos de capital y desempeño de la inversión: México." In Flujos de capital e inversión productiva: lecciones para América Latina, edited by Ricardo Ffrench-Davis and Helmut Reisen. Santiago: McGraw Hill. World Bank. 1994. Mexico: Country Economic Memorandum-Fostering Private Sector Development in the 1990's. Report No. 11823-ME. Washington D.C.: World Bank, May.

Serie
estudios y perspectivas

OFICINA SUBREGIONAL DE LA CEPAL EN MEXICO

Issues published

1. Un análisis de la competitividad de las exportaciones de prendas de vestir de Centroamérica utilizando los programas y la metodología CAN y MAGIC, Enrique Dussel (LC/L.1520-P; (LC/MEX/L.458/Rev.1)), N° de venta:

2. Instituciones y pobreza rurales en Mexico y Centroamerica, Fernando Rello (LC/L. 1585-P; (LC/MEX/L.482)), N° de venta: S.01.TT.G.128. 2001. www
3. Un analisis del Tratado de Libre Comercio entre el Triangulo del Norte y Mexico, Esteban Perez, Ricardo Zapata, Enrique Cortes y Manuel Villalobos (LC/L.1605-P; (LC/MEX/L.484)), N° de venta: S.01.II.G.145, 2001. www
4. Debt for Nature: A Swap whose Time has Gone?, Raghbendra Jha y Claudia Schatan (LC/L.1635-P; (LC/MEX/L.497)), N° de venta: S.01.II.G.173, 2001. w
5. Elementos de competitividad sistemica de las pequenas y medianas empresas (PYME) del Istmo Centroamericano, Rene Antonio Hernandez (LC/L.1637-P; (LC/MEX/L.499)), N° de venta: S.01.II.G.175, 2001. MB
6. Pasado, presente y future del proceso de integration centroamericano, Ricardo Zapata y Esteban Perez (LC/L. 1643-
7. Libre mercado y agricultura: Efectos de la Ronda Uruguay en Costa Rica y México, Fernando Rello y Yolanda
8. Istmo Centroamericano: evolution economica durante 2001 (Evaluation preliminar) (LC/L.1712-P;
9. Centroamerica: El impacto de la caida de los precios del cafe (LC/L.1725-P; (LC/MEX/L.517)), N° de venta:

10. Foreign Investment in Mexico after Economic Reform, Jorge Máttar, Juan Carlos Moreno-Brid, Wilson Peres

- Readers wishing to obtain the above publications can do so by writing to the following address: ECLAC/Mexico, Presidente Masaryk No. 29 - 4° Piso, 11570 Mexico, D. F., Fax (52) 55-31-11-51, biblioteca.cepal@un.org.mx.
- Q: These publications are also available on the Internet: http://www.cepal.org.mx.

Name:. .....

Activity:.....

Address:.....

Postal code, city, country:. .....

Tel.: .....Fax:.....E.mail address: