

ISBN: 0-89940-334-4

Bailey
U.S.-Mexican Economic Integration
LBJ School
UT Austin

U.S.-Mexican ECONOMIC INTEGRATION

NAFTA
at the
GRASSROOTS

Edited by John Bailey

 **U.S.-Mexican**
Policy Studies Series
Policy Report No. 11

Lyndon B. Johnson School of Public Affairs

No. 6: *The Border Health Authority: Issues and Design* (1995)

No. 7: *Three Technical Papers on a Research and Demonstration Waiver for Medicare Coverage in Mexico* (1999)

No. 8: *Medicare Benefits for Recipients Living in Mexico: Proceedings of a Conference* (1999)

Other Publications

Texas-Mexico Transborder Transportation System: Regulatory and Infrastructure Obstacles to Free Trade (1991)

Maximizing Benefits of Tourism in Guerrero, Mexico (1991)

U.S.-Mexico Free Trade Agreement: Economic Impact on Texas (1992)

Texas-Mexico Multimodal Transportation (1993)

Sectoral Labor Effects of North American Free Trade (1993)

Aspectos económicos sobre transporte é infraestructura ante el reto del Tratado de Libre Comercio de América del Norte (in Spanish with executive summary in English) (1994)

NAFTA Handbook for Water Resource Managers and Engineers (1995)

The Impacts of Trade Agreements on State and Provincial Laws (1996)

Navigating the Waters of the Paso del Norte: A People's Guide (available in English or Spanish) (1999)

Reaching across the Border: Intergovernmental Relations between Texas and Mexico (1999)

For order information and book availability call 512/471-4218 or write to: Office of Communications, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, Box Y, Austin, TX 78713-8925. Information is also available online at <http://www.utexas.edu/lbj/pubs/>.

Contents

xiii	Tables
xv	Figures
xvii	Abbreviations
xix	Acknowledgments
1	Introduction—NAFTA's Impacts on Mexico and the United States: Subregional Effects of Trade and Economic Integration
23	Part I—Society, Economy, Demography
25	Chapter 1: Effects of Export-led Growth on the Structure of Mexican Industrial Production
47	Chapter 2: From National to Subregional and Local Competitiveness: Recent Trends among Mexico's Metropolitan Areas
71	Chapter 3: Economic Dynamics in the U.S.-Mexican Border Region
99	Chapter 4: Paradoxes of Mexican Integration in Southern California
137	Chapter 5: Petroleum in the North American Integration Process
165	Part II—Government, Politics, Public Opinion
167	Chapter 6: Economic Integration and Subregional Electoral Dynamics in Mexico
199	Chapter 7: Erosion of Support for NAFTA in United States Public Opinion: Regional and Partisan Dynamics, 1994–1996
221	Chapter 8: Globalization and Regional Electoral Trends in the United States: Perspectives from the American States
255	Chapter 9: Mexican-U.S. Border Bureaucracies and Intergovernmental Relations
291	Chapter 10: Subnational Units and Joint Policies in the Bilateral Agenda: Migration, Environment, Bureaucracy

Tables

28	Table 1.1. Main Macroeconomic Variables
31	Table 1.2. Mexico: Export and Import Coefficients
38	Table 1.3. Basic Statistics on Rates of Change in Regional GDP per Capita by Period (32 State Observations)
40	Table 1.4. Mexico: Share of National GDP of Selected States
53	Table 2.1. Average Employment by Sector and Average Income in the 16 Main Metropolitan Areas
55	Table 2.2. Sectorial Employment and Income by Economic Sector: Quarterly Average Rates of Growth
60	Table 2.3. Percent of Population Living in Deprivation in Selected Geographic Statistical Areas (AGEBs)
63	Table 2.4. Cluster Analysis: Description of Clusters and Assignment of Cities to Clusters
64	Table 2.5. Factor Loadings (Unrotated)
65	Table 2.6. Cluster Analysis: Distances between Clusters
76	Table 3.1. Exports to Mexico by Regions and Divisions (Millions of Current Dollars)
77	Table 3.2. Percentage of the Exports to Mexico According to Regions and Divisions (Millions of Current Dollars)
79	Table 3.3. Exports to Mexico As a Percentage of Total World Exports by Regions and Divisions
80	Table 3.4. Annual Percentage Growth of the Ratio of Exports to Mexico As a Share of World Exports, According to Regions and Divisions
81	Table 3.5. Percentage Growth of the Ratio of Exports to Mexico to World Exports for Specific Periods, According to Regions and Divisions
82	Table 3.6. Number of States with Different Annual Growth Rate of Exports to Mexico
84	Table 3.7. Per Capita Exports to Mexico
85	Table 3.8. Annual Percentage Growth of per Capita Exports to Mexico
86	Table 3.9. Percent of Exports to Mexico to State Gross Product
88	Table 3.10. Per Capita Retail Sales in Texas Border Communities (Current Dollars)
89	Table 3.11. Percentage Change in per Capita Retail Sales in Texas Border Communities
145	Table 5.1. Proven Reserves, Production, and Consumption of Petroleum (Billions of Barrels)
147	Table 5.2. Projected World Oil Production, Consumption, and Balance (Millions of Barrels per Day)
153	Table 5.3. Ratio between Net and Operating Profit
154	Table 5.4. Indicators of Public Spending in Mexico (in Percentages)
157	Table 5.5. Distribution of Federal Public Support by State
160	Table 5.6. Index of Dutch Disease

170	Table 6.1. Federal Deputy Election Results by State, 1991-1997
181	Table 6.2. Retrospective Evaluations of Personal Financial Situation, by Party and Region, 1991 and 1996 (in %)
183	Table 6.3. Retrospective Evaluation of Personal Economic Situation, by Region, 1991 and 1996 (in %)
184	Table 6.4. Evaluation of Presidential Handling of the Economy, by Region, 1991 and 1996 (in %)
185	Table 6.5. Evaluation of Presidential Handling of the Economy, by Party and Region, 1991 and 1996 (in %)
188	Table 6.6. Perspectives on NAFTA by Region, 1991 and 1996 (in %)
189	Table 6.7. Evaluation of Personal Effects of NAFTA, by Region and by Party Affiliation, 1996 (in %)
190	Table 6.8. Perspectives on NAFTA by Party Affiliation and Region, 1991 and 1996 (in %)
204	Table 7.1. Classification of States by Region
205	Table 7.2. General Decrease in Positive Perceptions of NAFTA Effects, 1994 and 1996 (in %)
206	Table 7.3. Regional Variation in Perceptions of NAFTA's Effects, 1994 and 1996 (in %)
207	Table 7.4. Self-defined Ideology and Perceptions of NAFTA's Effects, 1994 and 1996 (in %)
208	Table 7.5. Party Affiliation and Perceptions of NAFTA's Effects, 1995 and 1996 (in %)
209	Table 7.6. Regional Variation, Controlling for Party Identifications, 1994 and 1996 (in %)
212	Table 7.7. Evaluation of Clinton's Job As President and Perception of NAFTA's Effects, 1994 and 1996 (in %)
213	Table 7.8. Regional Variation, Controlling for the Variable "Clinton's Job As President", 1994 and 1996 (in %)
216	Table 7.9. House Votes on Fast Track by Party and Region, 1993 and 1998
230	Table 8.1. Total State Merchandise Exports, 1993-1997 (in Millions of Dollars)
234	Table 8.2. State Exports to Mexico, 1993-1997 (in Millions of Dollars)
236	Table 8.3. Top 20 States in Total Trade with Mexico (in Millions of Dollars)
237	Table 8.4. Bottom 20 States (Including the District of Columbia) in Total Trade with Mexico (in Millions of Dollars)
238	Table 8.5. State Exports to Mexico As a Percentage of Total Exports
240	Table 8.6. Job Change As a Result of NAFTA
242	Table 8.7. Percentage of Employment by Non-Bank Foreign Affiliates in the United States, 1990-1995 (Employees in Thousands)
246	Table 8.8. Latino Population by State, 1993-1996
248	Table 8.9. Legal Immigration from Mexico by State, 1996
250	Table 8.10. Integration Rank
295	Table 10.1. Analytical Filter

Figures

30	Figure 1.1. Labor Productivity
32	Figure 1.2. Domestic Demand and Exports with Respect to GDP
34	Figure 1.3. Trade Balance in Manufacturing and the Economy's Total Current Account
39	Figure 1.4. GDP per Capita for Selected States (D.F.=100)
41	Figure 1.5. Labor Productivity in Selected States (Total Economy=100)
91	Figure 3.1. The Number of Maquiladora Plants in Mexico, 1980-1997
92	Figure 3.2. The Percentage of Border and Nonborder State Maquila Plants, 1980-1997
93	Figure 3.3. Annual Growth Rate of the Maquiladora Industry
149	Figure 5.1. Index of U.S. Petroleum Dependence
173	Figure 6.1. Distinctive Regions in Mexico

Chapter 1

Effects of Export-led Growth on the Structure of Mexican Industrial Production

by Enrique Dussel Peters

IN DISCUSSING THE ASIAN CRISIS OF THE LATE 1990S, MULTILateral institutions have called Mexico's economy a model to guide others caught up in the turmoil. The apparent rapid recovery of Mexico's economy since December 1994, at least in terms of gross domestic product (GDP) and exports, has undoubtedly been one of the main accomplishments of its liberalization strategy of development. Nevertheless, these apparent accomplishments have, as a counterpart, a series of economic structural limitations which neither the Mexican government, researchers, nor academics have identified in sufficient detail.

The first section of this chapter will examine the conditions of the Mexican economy and general changes which it has undergone in the past two decades, with special emphasis on the liberalization strategy imposed since at least 1988, and attempt to describe in schematic fashion the vision and primary innovations of the liberalization strategy compared to earlier development models. The goal is to understand the general context of both the Mexican economy and the subregional trends that have evolved since the late 1980s.

The second section sets out in more detail the primary trends of the Mexican economy since the strategy of liberalization was implemented both at the macroeconomic level and, in some cases, by sector, and will underscore the conditions for growth of the Mexican economy and its future potential. The third section analyzes both the significance of the current globalization process and its impact on the Mexican economy at a subregional level, particularly since 1988. A series of variables, such as GDP per capita, the share of states in national GDP and employment productivity trends, reflect both the conditions and results of ten years of liberalization in Mexico. The conclusion

sums up the chapter's principal points. It is important to stress at the outset that information about the economies of Mexico's states remains inadequate.¹

The Strategy of Liberalization since 1988

Since President Lázaro Cárdenas' presidency (1934–40), Mexico, like most of Latin America, followed a development model known as import substitution industrialization (ISI). Like most industrial nations in the process of development, Mexico, in following ISI, emphasized the domestic market as the central reference point for modernizing and industrializing the economy and society. Acceding to the infant industry argument, which assumes that new economic activities need to be given some time before they compete on the world market, ISI prescribed a long list of different policies—industrial, commercial and macroeconomic, among others—with the goal of promoting the growth of sectors considered “strategic.” These sectors were the first to produce substitutes for imported consumer goods, a process which itself requires the importation of capital goods. It was felt that these same sectors subsequently would become capable of continuing to develop on both the national and international markets. The function of the state, from this perspective, is critical, and includes legislation, continual social and economic intervention, and even the creation of firms and sectors (as has been the case with oil and telecommunications, among many others). ISI was financed at least through the end of the 1960s by the transferring of resources from agriculture to the manufacturing or modern sectors, by capturing surpluses from the agricultural sector.²

Nevertheless, political corporativism, which is a key part of ISI and is based on a deep-rooted authoritarianism, as well as the failure to establish selection criteria and the temporary transfer of resources clearly and transparently to priority sectors, resulted in a crisis in ISI that began at least in the late 1960s. This crisis first manifested itself in the agricultural sector, which had financed ISI but had itself begun to run deficits and could no longer do so. Student protests and armed political movements that appeared in the late 1960s also reflected the social and political crisis of ISI.³

For almost two decades, the Mexican government was able to cope with the sociopolitical and economic crisis of ISI through various financing mechanisms: first through the discovery and exploitation of petroleum fields and, later, through massive foreign borrowing. The oil revenues and external debt allowed the fundamental decisions about ISI and the country's broader economic strategy to be postponed. Nevertheless, the foreign debt crisis, which began in 1982 when Mexico became one of the first nations to declare that it could not pay its foreign debt, and the impossibility of securing massive new

loans led to a political and economic decision to shift to a new development strategy. From this perspective, Miguel de la Madrid's presidency (1982–88) was a transitional phase where official criticism and concerns about ISI, as well as countless economic and political crises, emerged. No agreement was reached on a new development strategy at this time, however.

In December 1987, with the signing of the first Solidarity Pact, which was backed by business groups, the government and government-linked unions, and subsequently with Carlos Salinas de Gortari's presidency, we see clearly for the first time the conditions, objectives, and priorities of a new official development strategy: the strategy of liberalization.

This strategy, based in theories of export-oriented industrialization,⁴ was a response to the limitations and crises affecting ISI. In differentiating itself from ISI, the liberalization strategy takes as its point of reference the global market; that is to say, any economic unit (a firm, subregion, or nation) is considered efficient economically if it is capable of exporting. As a result, through an increase in total productivity, exports have a positive impact on the growth rates of their respective economic units. There is a causal link between a country's exports and its direct integration into the world market and economic growth.⁵

In the specific case of Mexico, the liberalization strategy is characterized by the following economic priorities:

1. Control of inflation and the government deficit and the attraction of foreign investment. Control of the first two variables receives priority as a result of the ISI experience in the 1980s, when inflation reached an annualized 160 percent and the government deficit hit 16 percent of GDP in 1987 (Table 1.1), but this emphasis also reflects a new vision of an economic strategy in which relative prices become a primary mechanism for allocating economic resources. A restrictive monetary and credit policy is a necessary result of these priorities:
2. To meet the first priority, the state is forced to become minimalist or “lean,” and withdraw from many of the roles that it played under ISI. This explains the widespread process of privatization of state-owned industries created during ISI, as well as the state's general withdrawal from economic activities and the fact that its fixed gross public investment fell from 12.1 percent of GDP in 1981 to less than four percent for most of the 1990s (Table 1.1).
3. As a substantive part of the liberalization strategy, the private manufacturing sectors become the engine of growth through the dynamism of their exports. Most of the tariff barriers erected during ISI are eliminated, with

Table 1.1
Main Macroeconomic Variables

	1980	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997 ¹
GDP	8.2	2.6	1.2	3.5	4.4	3.6	2.9	0.9	4.6	-7.0	5.2	7.0
GDP Per Capita	5.4	0.5	-0.2	1.7	2.5	1.7	0.9	-0.9	1.7	-8.7	3.4	5.2
Employment	14.7	2.2	0.9	1.3	0.9	2.6	0.4	0.2	1.2	-7.5	3.4	-
Unemployment Rate	4.7	4.4	3.6	3.0	2.8	2.6	2.8	3.4	3.7	6.2	5.5	2.8
Real Wages (1980 = 100)	100.0	84.1	76.4	73.9	71.5	73.6	77.5	79.2	81.6	69.7	60.0	58.7
Minimum Wages (1980 = 100)	100.0	70.9	53.6	49.4	43.1	40.7	39.4	38.9	38.8	33.3	31.0	29.0
Gross Fixed Capital Formation	24.8	17.9	16.8	17.3	18.7	19.6	21.1	20.7	21.7	16.1	16.9	17.9
Public	10.7	6.5	4.7	4.7	5.1	4.7	4.3	3.8	3.7	3.3	4.0	3.8
Private	14.1	11.4	12.1	12.6	13.7	14.9	16.8	16.6	17.3	12.3	12.9	14.1
Savings/GDP	25.5	20.1	22.6	22.9	23.1	23.4	23.3	21.0	21.7	19.6	20.9	22.9
Domestic	20.5	20.5	21.3	20.3	20.3	18.7	16.6	15.1	15.0	19.0	20.4	21.3
Public	5.9	5.4	0.6	3.3	6.8	6.5	6.6	5.1	4.0	4.7	4.4	-
Private	14.6	15.1	20.7	17.0	13.5	12.2	10.0	10.0	11.0	14.3	16.1	-
Foreign	5.0	-0.4	1.3	2.6	2.8	4.7	6.7	5.9	6.7	0.6	0.5	1.7
Inflation	29.8	63.7	51.7	19.7	29.9	18.8	11.9	8.0	6.9	54.5	27.7	16.0
Financial Deficit/GDP ³	7.5	9.6	12.5	5.6	3.9	-1.5	1.6	0.7	-0.1	0.1	1.0	0.8
Exports of Goods and Services	25.72	-4.5	5.8	2.3	3.6	4.6	1.7	3.7	17.3	33.0	22.0	13.0
Imports of Goods and Services	35.22	11.0	36.7	21.3	19.7	16.8	20.9	-1.2	16.7	-23.6	27.4	24.2
Trade Balance, excluding maquiladora	-4.7	7.7	-0.9	-4.1	-6.3	-13.4	-23.0	-21.4	-27.3	-3.8	2.2	-7.0
Current Account ²	-10.7	1.2	-2.4	-5.8	-7.5	-14.9	-24.8	-23.4	-29.7	-1.6	-1.9	-7.5
Capital Account ²	11.4	-1.5	-1.2	3.2	8.3	24.5	26.3	32.5	14.6	15.4	4.1	15.4
Foreign Reserves ²	4.2	5.7	6.6	6.9	10.3	18.1	19.3	24.3	6.1	15.7	17.5	28.0
Foreign Investment	2.1	-0.5	5.9	2.8	-0.2	18.7	24.4	33.3	22.9	-0.4	22.9	18.3
Direct ²	2.2	0.5	3.2	2.5	3.7	6.6	5.2	4.9	14.7	9.3	8.7	10.0
Portfolio ²	-0.1	-1.0	2.7	0.3	-3.9	12.1	19.2	28.4	8.2	-9.7	14.2	8.3
Total Foreign Debt ²	57.5	96.9	99.2	93.8	100.8	103.8	112.9	127.6	136.5	161.1	176.1	-
Foreign Debt Service ²	9.4	15.3	8.1	14.5	11.2	16.1	25.7	24.7	32.9	31.6	33.6	-

Source: These are our own calculations and are based on data from INEGI, Bank of Mexico, ECLAC and Mexico's Ministry of Finance (SHCP).

Note: All the information refers to rates of change, unless stated otherwise.

¹Preliminary.

²Billions of dollars.

³Refers to total income minus public sector expenditures.

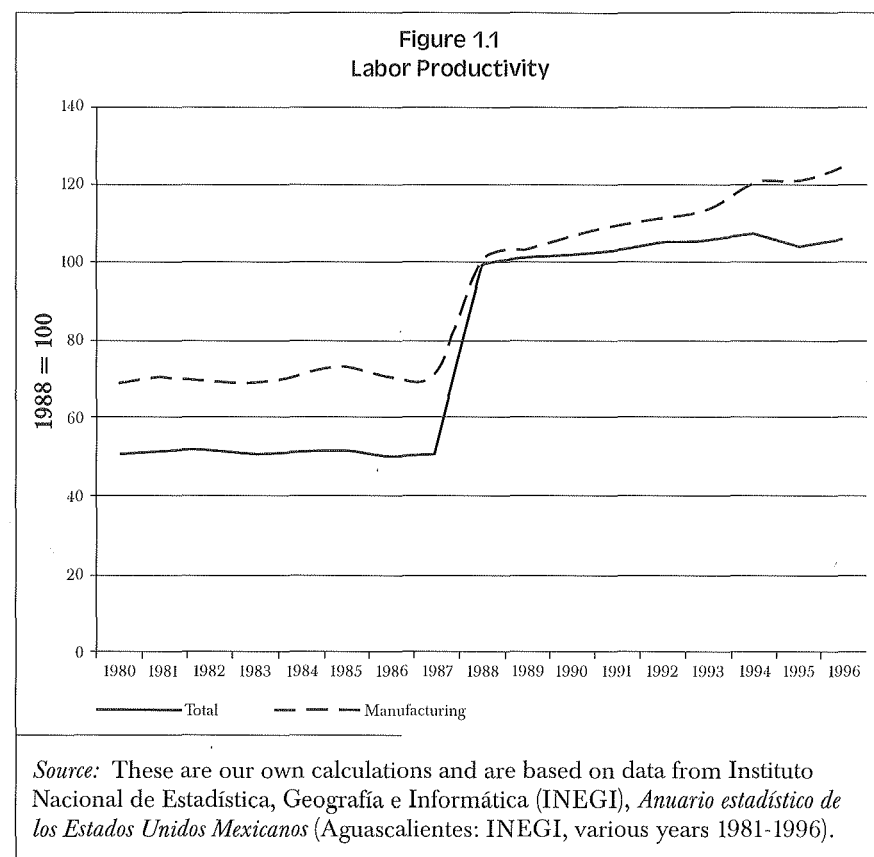
the object of allowing the private sector to import inputs at cheaper international prices, thereby stimulating the export dynamic.

- As a result, many of the policies implemented during ISI were nearly eliminated, to meet the criteria of the new development strategy. Those policies included selection of sectors, subsidies, preferential exchange rates influencing macroeconomic and sectoral priorities, high and discretionary tariffs, quotas and licenses making it impossible to import certain products, and monopolistic state-owned corporations. It is pertinent here to note that one of the primary macroeconomic variables—the exchange rate—is, in this new context, a consequence of the antiinflationary policy; i.e., the rate functions as an “antiinflationary anchor.” Since a devaluation would generate pressures on relative prices, an exchange used rate to fight inflation tends to become overvalued.
- Last, after 1988, foreign investment was the most important source of funds to finance the new strategy. Given that oil revenues barely were able to meet the external debt, and faced with the impossibility of getting additional outside financing, foreign investment became the key financing source for the liberalization strategy. Similarly, and based on the economic pacts in place until 1997, a fall in real wages, brought about by government-controlled and repressive unions, was fundamental to the liberalization strategy.

Finally, it is important to indicate that the liberalization strategy continues to be, in theoretical and practical terms, the dominant development paradigm since 1988.

Effects of the Liberalization Strategy (1988–1997)

Putting aside the December 1994 crisis, it is important to emphasize that, in terms of its stated goals, the liberalization strategy has been successful. Inflation was reduced from more than 100 percent in the late 1980s to single digits in 1993 and 1994, the huge fiscal deficits of the 1980s have been cut to a minimum (with even a small surplus during some of the years since 1988), and foreign investment has risen from less than three billion dollars annually to more than 20 billion in some years during the 1990s. The productivity of the manufacturing sector, in terms of capital as well as labor (Figure 1.1), has risen significantly since 1987, and manufacturing exports have risen from \$10.4 billion dollars in 1987 to about \$95.6 billion in 1997, and from 50.9 percent of total exports to 86.5 percent over the same period. In terms of its stated goals, the liberalization strategy has been extremely successful.



Nevertheless, the liberalization strategy contains some structural limitations that have not yet been analyzed adequately:

1. The GDP and GDP per capita during 1988-97, annually 2.6 percent and 1.1 percent, respectively, are significantly lower than in earlier periods of growth.⁶
2. Generalized structural polarization probably has been the primary characteristic resulting from the liberalization strategy. Exports have become an engine of growth for the Mexican economy. These have risen from 11.9 percent of GDP in 1987 to about 20.5 percent in 1997, and the same coefficient for the manufacturing sector rose from 31.64 percent to 73 percent in that same period (see Table 1.2). Exports, however, have been concentrated in a relatively small number of firms, sectors and subregions. Begin-

Table 1.2
Mexico: Export and Import Coefficients

	1980	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997 ¹
Manufacturing												
Export Coefficient	9.05	15.55	31.63	30.43	30.84	28.66	26.28	29.56	34.49	66.30	69.03	73.00
Import Coefficient	40.54	27.90	47.04	54.12	61.00	63.50	69.98	68.80	79.39	79.98	86.72	95.00
Total Economy												
Export Coefficient	7.77	11.65	11.90	10.98	11.07	9.25	8.22	8.06	8.84	17.84	19.45	20.50
Import Coefficient	10.20	7.46	12.42	13.00	13.69	13.89	15.12	13.82	15.78	17.80	20.31	21.50

Source: Instituto Nacional de Estadística, Geografía e Informática (INEGI), *Anuario estadístico de los Estados Unidos Mexicanos* (Aguascalientes: INEGI, various years 1981-1997).

Note: Coefficients represent exports or imports divided by gross domestic product (GDP).
¹Estimated.

ning in the 1990s, the manufacturing sector produced about 85 percent of all exports, and about 300 companies were responsible for approximately 60 percent of the manufactured exports. Beginning in 1988, five manufacturing sectors (automobiles, basic petrochemicals, beer and liquor, glass and electronics) were notably dynamic with respect to the productivity of their capital, labor, GDP, employment, exports and imports. Other sectors, especially those that produce for the domestic market, have not significantly benefited from the liberalization strategy. Such tendencies have become even more marked since the December 1994 crisis and the imple-

mentation of the North American Free Trade Agreement (NAFTA) because of the relations that already existed among these firms and sectors. The growth in the gap between internal demand and exports since 1988 also bears witness to these recent tendencies (Figure 1.2).⁷

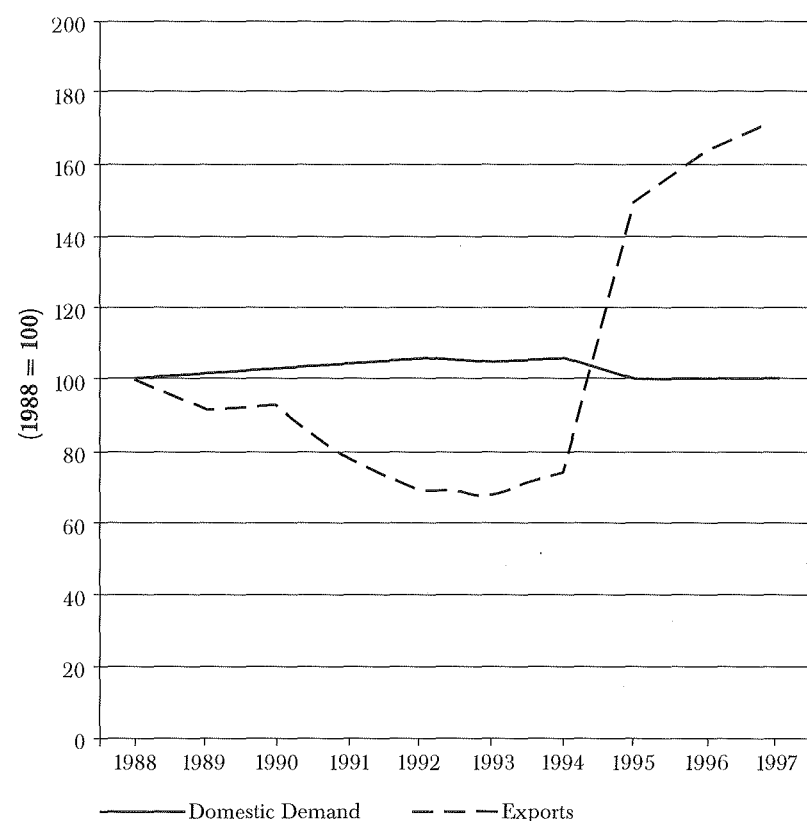
3. One especially relevant aspect of the liberalization strategy's polarization and economic unsustainability is that it causes the private manufacturing sector, the pillar of growth, to encounter increasing difficulty in integrating itself into the world market. Because of economic liberalization—including high real interest rates to attract foreign investment, liberalized imports, and an overvalued exchange rate to keep down inflation—the manufacturing sector as a whole runs into structural limitations that have ripple effects throughout the Mexican economy. The results of the strategy noted earlier imply that, despite the increase in exports, imports expand the most. In order to grow, the manufacturing sector, especially the most dynamic portions, requires more imports than are exported, which pushes up trade and current account deficits. The trade deficit, excluding maquiladoras, reached \$27.3 billion in 1994 and, given the economic context and international and national policies, could not be financed, which contributed directly to the 1994 crisis. From this perspective, the Mexican manufacturing sector was a primary cause of the December 1994 crisis and that sector's structural limitations have not been corrected or even properly analyzed as of 1998. Since the recovery of the Mexican economy in 1996, at least in terms of GDP and exports, manufacturing exports have continued to grow, although imports are growing much faster, an indication that we may be heading for the same sort of financing impasse that sparked the 1994 crisis.

Export-oriented industrialization—due to the conditions of economic liberalization—has turned into import-oriented industrialization, generating economic conditions that are not sustainable over the medium- and long-term for the economy as a whole. This strategy also has a negative effect on employment, technological development, and, in general, the overall development of the Mexican economy. Figure 1.3, which illustrates the difference between exports and imports for both the manufacturing sector and the total economy, according to GDP, reflects the lack of endogeneity given that the manufacturing sector has increased its ratio of the trade balance/GDP from -15.4 percent in 1988 to -44.9 percent in 1994. This ratio fell in 1995 as a result of the crisis, but has now risen again with the growth of the manufacturing sector.

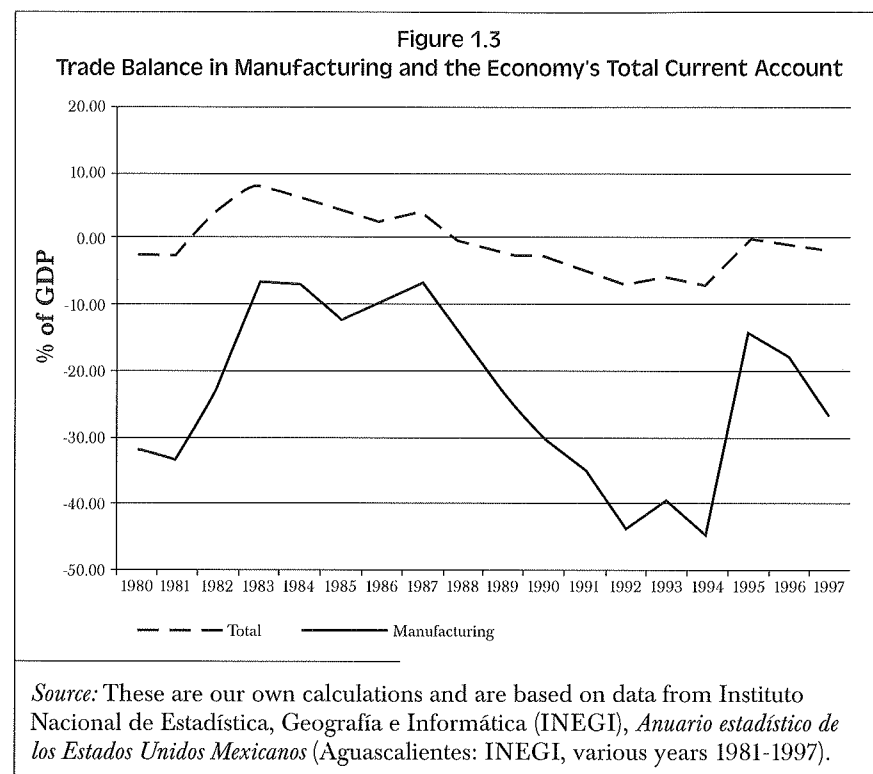
4. A series of studies have indicated that the most dynamic sectors of the Mexican economy, particularly in manufacturing, are highly capital-intensive.⁸ This not only contradicts major portions of neoclassical international

Figure 1.2

Domestic Demand and Exports with Respect to GDP



Source: These are our own calculations and are based on data from Instituto Nacional de Estadística, Geografía e Informática (INEGI), *Anuario estadístico de los Estados Unidos Mexicanos* (Aguascalientes: INEGI, various years 1981-1997).



trade theory, which assumes that countries rich in labor should produce and export labor-intensive products, but also introduces limitations, particularly in the creation of employment opportunities. Official information on open unemployment is neither relevant nor does it reflect the difficulties inherent in the Mexican economy.⁹ From another perspective, the economically active population (EAP) has grown by 17 million people from 1980 to 1996, while during that same period, the economy has generated perhaps two million jobs in the so-called "formal sector." This tendency worsened in 1994-95 when the EAP grew by 1.32 million and the economy lost 0.82 million jobs, creating an employment gap of about 2.2 million. The concentration of capital in the dynamic sectors of the economy is also reflected in the fact that employment growth during 1988-96 was just 2.6 percent annually while, for example, in 1970-81, employment grew at a rate of 4.8 percent annually. Employment is the most important social, political, and economic variable in Mexico, and the Mexican economy finds itself facing structural limitations growing out of the liberalization

process because of the minimal amount of employment it generates, particularly in the economy's most dynamic sectors.

5. Real wage trends were equally dramatic between 1980 and 1988. On the one hand, minimum wage¹⁰ and real wages represented only 29 percent and 58.7 percent of real GDP in 1980, respectively. On the other hand, the sectors generating the most employment in 1988-96 were in lower-wage categories, like construction, transport, and agriculture. As a result, the liberalization strategy not only failed to create sufficient employment but the jobs it did create were lower in quality than existing employment.

The above points demonstrate that, despite its success in meeting the goals of controlling inflation and the government deficit, and attracting foreign investment, the liberalization strategy produces unsustainable economic conditions that have profound repercussions on Mexican society. Generalized polarization, insufficient generation of employment, and particularly the lack of an endogenous Mexican manufacturing sector (based on a limited number of international and national corporations oriented toward exports and having strong inter- and intra-firm links) have brought about structural characteristics that have significantly transformed the Mexican economy since the 1980s. While one sector of the economy has successfully integrated itself into the world market by adhering to the parameters of the liberalization strategy, most of Mexican society, where 40 percent of the population lives below the poverty line, has not been incorporated into this process.

The contradictions and limitations of the liberalization process are closely linked to theories supporting export-oriented industrialization and its implementation, but further discussion of these theories are well beyond the scope of this chapter.

Subregional Tendencies in Mexico (1988-1997)

Following from this discussion of national-level tendencies, one major hypothesis emerging from a study of liberalization strategy is the likelihood of increasing polarization at the state level.

In this context, it is important to realize that there are serious statistical limitations to conducting a state-level analysis of Mexico, although efforts have been made to improve that situation. Most of the data presented here were gathered by Miguel Angel Mendoza (GDP and population by state) and INEGI, unless otherwise specified.¹¹

The following analysis focuses on the main trends in Mexico's states—as opposed to its subregions, which still require in-depth study—with a particular

emphasis on the periods before and after the liberalization process began. Other issues, such as government policies oriented toward subregions, and an econometric analysis, lie outside the scope of this chapter. This section will begin with the presentation of some new challenges for the Mexican economy in the context of globalization and the liberalization processes that serve as the temporal framework for the states' evolution in Mexico.

The Mexican Economy: Between Globalization and Subregionalization

It is increasingly recognized at present that the process of globalization is one of the most significant economic, social, and political developments of recent decades. But what is globalization? From an economic perspective, we shall define this recent process as the institution of flexible production and global commodity chains. At least since World War II, productive and financial capital has become more transnational; the increasing importance of direct and portfolio foreign investment flows, and increasing international trade, reflect this tendency. But the globalization process also incorporates some new characteristics. Flexible production,¹² on the one hand, refers to the process of transforming products that are more specialized and varied with the goal of responding to demand and allowing for more substitution between products, reducing the life cycles of products and cutting the time and costs associated with buying inputs, and producing and distributing the commodities. On the other hand, *global commodity chains* have increasingly become a way to maximize flexible production, processes of quality and just-in-time inventories (internal and external), and to integrate operative functions and problemsolving and benchmarking, among other innovations. The search for clusters and sites with different kinds of benefits, for example, is extremely important. This form of production, in and of itself, requires new ways of distributing responsibilities (as well as costs and benefits), the learning process, and the productive process itself. It is significant that flexible production and global commodity chains generate new challenges for nations, regions, and firms; the basic work unit is now a group of units or a network, and not individual and/or segmented firms.¹³

From this perspective, transnational firms, and, increasingly, others as well, are realizing that they need to buy inputs, and produce and distribute their products, services and processes, in new ways and according to different schedules. For example, a computer manufacturer has its base in Country A, buys inputs from Country B, and distributes its products in Countries A, B, and C. Thus, product X made by this company is the result of a series of productive processes performed in N number of countries for global production and distribution. That is, this firm does not buy inputs from Country A to transform (and assemble) and distribute them in Country A but, rather, it gener-

ates in Country A products and processes that may be either components or the final product itself, for global distribution. This type of industrial organization, which is different from transnational corporations' traditional industrial organization, has a wide range of implications on a global scale, among which we should emphasize the following:¹⁴

1. The space within which economic policies are implemented—that is to say, the subregional and local territory—is key in terms of the globalization process in economic development. From this perspective, and faced with the generalized processes of international liberalization, globalization has its greatest impacts at the subregional and local levels. In contrast to earlier decades, it is now in the subregional and local spaces that productive networks and global commodity chains among markets are generated (or not). From a firm's perspective, economies of scale can be maximized when a particular territory becomes the locale for global production. At the same time, the learning process for production is at the local or subregional level.
2. Based on the above, the productive process for goods and services is segmented into value-added linkages. This is particularly significant in terms of value added, but also results in the use and production of technology and processes, in generating employment, in subcontracting and, in general, in the learning process that develops in respective subregional and local spaces.
3. The above does not signify the "disappearance" of nations (a discussion of which is beyond the scope of this chapter.) But it does require new kinds of policies. That is to say, faced with the globalization process, which is not irreversible and is strictly dependent on changeable global market conditions, a single policy (industrial, social, educational, antipoverty, and the like) at the national level makes little sense and is more or less efficient or effective in different subregions of a single country.¹⁵ From this perspective, subregions become the basic space within which to implement economic policies, which are designed for particular locales. The globalization process thus creates, at the same time, a subregionalization process within nations, and, as we will see, geographic dispersion generates a systematic reorganization between and among firms. The reorganization challenges for institutions responsible for subregional and national development are of fundamental importance in enhancing subregional conditions for economic development, and the process of interfirm learning.

These points have become relevant for Mexico since 1988, within the context of its liberalization strategy and the focus on macroeconomic stability

and elimination of economic policy tools at both the subregional and national level. Within the framework of growing liberalization (trade, capital flows, and intensified inter- and intra-firm relations), the local and subregional impact has increased significantly since the 1980s.

Some Regional Tendencies in Mexico (1970-1997)

Some authors have argued that the Mexican economy has recently been characterized by a variety of economic impacts. Ruiz Durán argues, for example, that, given the economic framework of the liberalization process, the states have been exposed in varying degrees to economies of agglomeration, models of state intervention, and differing models of foreign investment (oriented toward the internal market, exports, and maquila activities).¹⁶ Most notably, in 1980-93, the most dynamic model gave priority to foreign investment, which is characterized by a high degree of industrialization and high growth rates in the manufacturing sector. Other studies used coefficients of employment specialization to demonstrate that the states were characterized by relative processes of convergence in 1980-93; there was, however, a high degree of variability in the coefficients.¹⁷

But what have been the primary regional tendencies since 1988? In what follows, I will present general trends at the subregional economic level, based on data from Mexico's states.

The average annual growth rate (AAGR) of GDP per capita at the national level averaged 1.4 percent from 1970 to 1987, but fell to 0.9 percent for 1988-97.¹⁸ It is important to note that while just 13 of 32 states had AAGRs that were lower than the national average in the first period, there were 19 in the second. (See Table 1.3)

Table 1.3
Basic Statistics on Rates of Change in Regional GDP per Capita by Period
(32 State Observations)

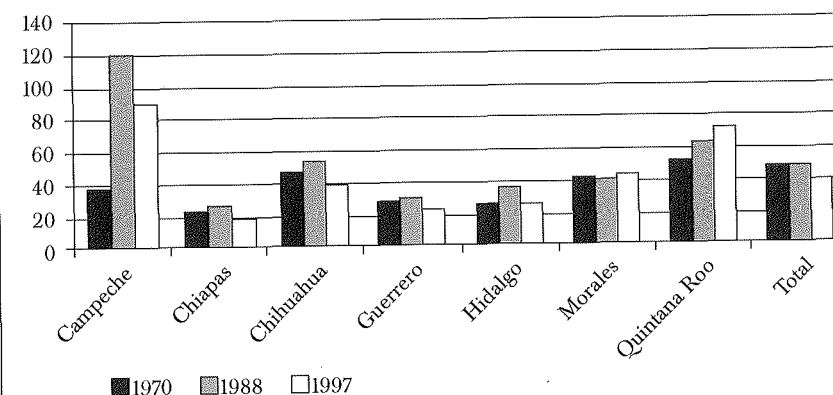
	1970-87	1988-97
Mean=Media	2.090	0.620
Standard Deviation	1.498	1.812
Variance	2.240	3.280
Median	1.880	0.270
Maximum	8.297	4.860
Minimum	0.430	-2.650

Source: Instituto Nacional de Estadística, Geografía e Informática (INEGI), *Anuario estadístico de los Estados Unidos Mexicanos* (Aguascalientes: INEGI, various years 1981-1997).

The GDP per capita data at the subregional level for the 1970-87 and 1988-98 periods (Table 1.3) shows:

1. GDP per capita declines significantly in the second period.
2. The standard deviation and, consequently, the dispersion of GDP per capita through both periods, increases significantly from 1.498 for 1970-87 to 1.812 for 1988-97.
3. While no states showed a negative growth rate in the first period, 15 do in the second; in 1970-87, six states Campeche, Hidalgo, Oaxaca, Tabasco, Tlaxcala, and Zacatecas) had growth rates above three percent, while in 1988-97 only three reached that level (the Federal District, Morelos, and Quintana Roo).
4. If the Federal District, the country's economic and political center, lost or was stable in terms of GDP per capita when compared to the states for 1970-87, beginning in 1988, GDP per capita growth in the capital outstripped all states except Quintana Roo (Figure 1.4). It is interesting to note that during 1988-97 only Campeche had a higher GDP per capita than the Federal District. In other states like Chiapas and Guerrero, the GDP

Figure 1.4
GDP per Capita for Selected States
(D.F.=100)



Source: These are our own calculations and are based on data from Instituto Nacional de Estadística, Geografía e Informática (INEGI), *Anuario estadístico de los Estados Unidos Mexicanos* (Aguascalientes: INEGI, various years 1981-1997).

Table 1.4
Mexico: Share of National GDP of Selected States

	1970	1985	1995
Four Largest States*	49.21	44.70	47.62
Campeche	0.44	3.94	1.64
Chiapas	1.62	2.32	1.82
Guerrero	1.72	1.74	1.98
Morelos	1.08	1.19	1.61
Oaxaca	1.48	1.77	1.71
Quintana Roo	0.18	0.51	1.34
Tabasco	1.16	2.72	1.48
Others	43.11	41.11	40.8
Total	100.01	100.00	99.99

Source: Instituto Nacional de Estadística, Geografía e Informática (INEGI), *Anuario estadístico de los Estados Unidos Mexicanos* (Aguascalientes: INEGI, various years 1981-1995).

*Federal District, State of Mexico, Jalisco, and Nuevo León.

per capita fell compared to the Federal District since 1988, accounting for 17.24 percent and 22.11 percent, respectively, in 1997.

The trends discussed above also show the states' participation in GDP for the period 1970-95.¹⁹ We observe the following:

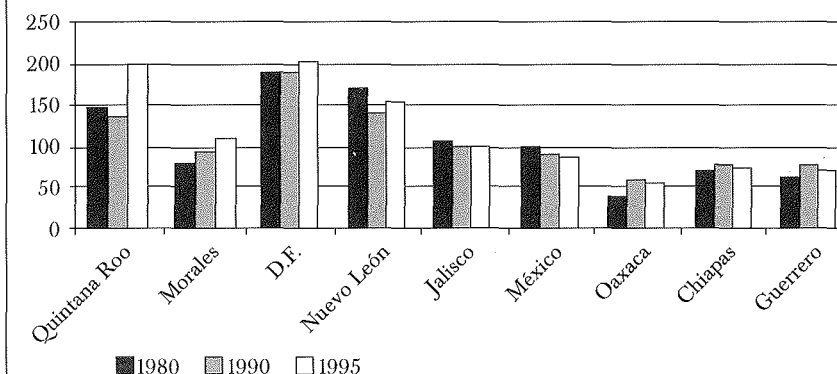
1. Only four states—the Federal District, Jalisco, Estado de México and Nuevo León—produced around 50 percent of the GDP in 1970-95. It is relevant to note that their proportion slipped from 49.2 percent of GDP in 1970 to 44.7 percent in 1985, and increased again to 47.6 percent in 1995. These tendencies are primarily the result of the Federal District's increasing share over 1985-95.
2. In general, for the period 1970-85, most of the states that increased their share in the national GDP, particularly Campeche and Tabasco, did so because of the oil boom. This process was reversed beginning in 1985; that is, the main production centers, particularly the Federal District, began once again to increase their share in the national economy.²⁰
3. Other states, like Chiapas, Guerrero, and Oaxaca, lose ground with re-

spect to the GDP over 1970-95. Thus, Chiapas' GDP as a percentage of Mexico's rose from 1.62 percent in 1970 to 2.32 percent in 1985, but fell again to 1.82 percent in 1995. (See Table 1.4)

We see a similar trend in looking at labor productivity at the regional level over 1980-95.²¹ For this period, the AAGR of labor productivity was 1.3 percent, although we find major differences between the 1980-90 period and 1990-95:

1. Throughout 1980-95, it is notable that states like Campeche, Chihuahua, the Federal District, Quintana Roo, and Nuevo León had significantly higher labor productivity than the national average, while Chiapas, Colima, Guerrero and Oaxaca, among others, were far below the national average.
2. In the 1980-1990 period, 20 of the 32 states grew faster than the national average, especially the southern states (Campeche, Tabasco, Veracruz, among others) as a result of the oil boom which we have already mentioned. The main industrial centers, particularly Jalisco, Estado de México and Nuevo León, saw their productivity fall during this decade with respect to the national average, while it remained fairly steady in the Federal District.

Figure 1.5
Labor Productivity in Selected States
(Total Economy=100)



Source: These are our own calculations and are based on data from Instituto Nacional de Estadística, Geografía e Informática (INEGI), *Anuario estadístico de los Estados Unidos Mexicanos* (Aguascalientes: INEGI, various years 1981-1995).

3. In 1990–95, just 10 states saw their labor productivity increase with respect to the national average. It is notable that the major industrial centers, particularly the Federal District and Nuevo León, saw their productivity rise sharply compared to the rest of the country. In the case of the Federal District, for example, it rose 13 percent compared to the national average, from 1990–95.

Conclusions

In the preceding pages I have shown that the Mexican government in 1988 shifted to a new development strategy as a response to the ISI crisis. This strategy has been extremely successful in terms of its stated objectives, particularly macroeconomic stabilization (controlling inflation and the fiscal deficit and attracting foreign investment). Nevertheless, and as was shown in the first part, it is unsustainable economically in the medium term due to a lack of endogenous growth conditions; this reflects a high and growing net penetration of imports and, in turn, puts strains on financing the deficits that these macroeconomic imbalances generate. At the macroeconomic level, it is important to note that the pattern of industrial organization resulting from the liberalization strategy precipitated the 1994 crisis. This type of organization is notable for its high level of capital intensity and its dynamic exports, which remain below imports, particularly in periods when the manufacturing sector is growing. Meanwhile, too few, and poor-quality, jobs are being created. In this way, the polarization of the Mexican economy, at the level of firms and sectors, becomes the primary characteristic of the liberalization strategy.

This growing polarization has also been seen at the national level since 1988. Even given the limited availability of official data, it can be seen that the current globalization process has a direct impact on Mexico's subregions. Since 1988, some states, particularly the more industrialized Federal District, Jalisco, Estado de México, and Nuevo León, and the northern states have seen their GDP per capita and labor productivity increase. Other regions, particularly in the south, have been left behind.

As the liberalization strategy continues, a failure to face this growing polarization means that it will deepen. These trends result from a liberalization strategy that creates a direct link between economic units (firms, regions, nations) and the world market. In the best of conditions, this is not sufficient. It is necessary that we consider the priorities of a development strategy. On the one hand, what is more important to the economic and social development of a country: reducing inflation to single digits, or massive job creation? Is it possible to press on with a development strategy based on a reduced number of firms and regions oriented toward exports? On the other hand, as has been

stated, the responses to, and conditions for, the globalization process must be grounded at the subregional and local levels. Clearly, there are no general formulas for success, but neither is it possible to try to impose national policies of different kinds from the center of Mexico.

Notes

1. I am grateful to Miguel Angel Mendoza, Salvador Rivera and Crescencio Ruiz for their support, their suggestions and data on the subregional economies. The support of José Luis Alvarez and Claudia Tello in collecting the data was important in completing this chapter.
2. José Ayala Espino, *Estado y desarrollo: la formación de la economía mixta mexicana* (Mexico City: Fondo de Cultura Económica, 1988) and René Villarreal, *Industrialización, deuda y desequilibrio externo en México: un enfoque neoestructuralista* (Mexico City: Fondo de Cultura Económica, México, 1988).
3. Ian Little, T. Scitovsky and M. Scott, *Industry and Trade in Some Developing Countries* (London: Oxford University Press, 1970).
4. It is important to emphasize that the liberalization strategy and its supporters are strongly linked to theorists working on export-oriented industrialization, including Balassa, Bhagwati, and Anne Krueger. The characteristics and theories are not an object of study in this article. See Enrique Dussel Peters, *La economía de la polarización: teoría y evidencia del cambio estructural en el sector manufacturero mexicano (1988–1996)* (Mexico City: Editorial JUS/UNAM, 1997).
5. Pedro Aspe Armella, *El camino mexicano de la transformación económica* (Mexico City: Fondo de Cultura Económica, Mexico, 1993); José Córdoba, "Diez lecciones de la reforma económica en México," *Nexos* 158 (1991): pp. 31–49; Enrique Dussel Peters, *La economía de la polarización: teoría y evidencia del cambio estructural en el sector manufacturero mexicano (1988–1996)* (Mexico City: Editorial JUS/UNAM, 1997); PEF (Poder Ejecutivo Federal), *Plan Nacional de Desarrollo 1995–2000* (Mexico City: Secretaría de Hacienda y Crédito Público (SHCP), 1995); and PEF (Poder Ejecutivo Federal), *Ernesto Zedillo: primer Informe de Gobierno* (Mexico City: PEF, 1995/b).
6. From 1940 to 1980, GDP and GDP per capita were 6.4 percent and 3.1 percent annually, respectively.
7. Internal demand was calculated as GDP minus exports plus imports. As we will see later, the relative stability of internal demand results from a rise in imports. See Enrique Dussel Peters, *La economía de la polarización* (Mexico City: UNAM, 1997).
8. Ibid. See also, Jaime Ros, *Mexico's Trade and Industrialization Experience Since 1960: A Reconsideration of Past Policies and Assessment of Current Reforms*. Prepared for ONU/WIDER, 1991.

9. The open unemployment rate, according to the OECD definition, refers to the population aged 12 and up who were jobless the week that they were interviewed and who had tried to find work in the two previous months. See INEGI, *Anuario estadístico de los Estados Unidos Mexicanos 1996* (Mexico City: INEGI, 1997). Using this definition, it is surprising to find any open unemployment in Mexico. This definition is relevant in economies where there is a social service network and it is possible to be unemployed. From this perspective, it is possible to see why during the worst part of the 1995 crisis, open unemployment barely hit 6.2 percent, considerably lower than in the OECD countries.
10. Fifty percent of the poorest Mexican families have only one wage-earner and 56.6 percent of Mexican households received the equivalent of zero to 2 minimum wages in 1994.
11. For a review of the methodology used to estimate these variables, see Miguel Angel Mendoza, "Modelo de desagregación del PIB por entidad Federativa, 1970-1995," in Enrique Dussel Peters, Michael Piore, and Clemente Ruiz Durán, *Pensar globalmente y actuar regionalmente: hacia un nuevo paradigma industrial para el siglo XXI* (Mexico City: Editorial JUS/UNAM, 1997), pp. 465-527.
12. In this document, I will use the term "lean production" as a form of "flexible production." Lean production implies a close relationship with purchase of inputs, production and distribution along with highly skilled working groups in a single enterprise based on a high degree of confidence between suppliers and manufacturers of final products. Coordination and cooperation between and among companies becomes, from this perspective, fundamental to the successful functioning of and between these companies. This is not a form of segmenting the productive process but a new form of systematic integration of and between enterprises, which is to say, of systematically internalizing space and time at the inter- and intra-corporation level. See Charles Sabel, "Learning-by-monitoring: The Dilemmas of Regional Economic Policy in Europe," in OECD, *Networks of Enterprises and Local Development: Competing and Co-operating in Local Productive Systems* (Paris: OECD, 1996), pp. 23-51.
13. Sabel, "Learning-by-monitoring: The Dilemmas of Regional Economic Policy in Europe."
14. Enrique Dussel Peters, Michael Piore, and Clemente Ruiz Durán, *Pensar globalmente y actuar regionalmente*.
15. This means, among other others, that, for example, a single industrial policy in Mexico, which assumes the same conditions in Baja California Norte as in Chiapas, makes no sense and is inefficient. This situation predates the liberalization process but has become more acute since its implementation.
16. In general, economies of agglomeration refer to cost savings which result from economic activities that are located near each other. Reduction of transportation costs and of information flows are typical cases. Clemente Ruiz Durán, "Lo territorial como estrategia de cambio," in Enrique Dussel Peters, Michael Piore, and Clemente Ruiz Durán, *Pensar globalmente y actuar regionalmente*, pp. 433-463.
17. Alejandro Dávila Flores, "Globalización económica y diferencias regionales en la industria manufacturera en México," Working Paper, Universidad Autónoma de Coahuila, 1998.
18. GDP per capita is calculated as a ratio of GDP adjusted for inflation and the population of the various states.
19. The states' proportion of GDP is calculated based on data from INEGI and on current prices.
20. National statistics do not at this time allow a detailed analysis for the 1970-1997 period. Information is currently limited to that distributed by INEGI (Censos Industriales 1980, 1988 and 1993) and by the Sistema de Cuentas Nacionales (1970, 1975, 1980, 1985 and 1995). In this case, I have used data from the Sistema de Cuentas Nacionales distributed by INEGI. These data do not allow an exact exposition of time periods before or after 1988.
21. Labor productivity at the regional level is calculated as a ratio of GDP (weighted for 1980) and the number of people working. The data for 1980 and 1990 came from INEGI, *X Censo General de Población y Vivienda, 1980*, (Mexico City: INEGI, 1986) and INEGI, "Características Económicas. Tabulados temáticos," Vol. 1, *XI Censo General de Población y vivienda* (Mexico City: INEGI, 1990) and the data from 1995 were estimated based on permanent jobs at the regional level. See PEF, *Plan Nacional de Desarrollo 1995-2000*.