The main goal of this chapter is to understand the changes in the Mexican government’s economic strategy since the end of the 1980s, both conceptually and with respect to its implementation. It is crucial to understand the government’s justification as well as the debate about alternative policies. A simple criticism of ‘neoliberalism’, as analyzed, is neither correct nor sufficient. The chapter will also discuss in detail some of the effects of liberalization strategy since 1988, particularly regarding manufacturing.

The chapter is divided into three sections. Section 6.1 briefly discusses the conceptual core of liberalization strategy, its economic policy goals and its distinction from ‘neoliberalism’. Section 6.2 considers the impact of liberalization strategy since 1988 on several aspects: macroeconomy, manufacturing and one specific region (electronics in Jalisco). Section 6.3 presents conclusions drawn from the overall discussion.

6.1 Neoliberalism, export-oriented industrialization and liberalization strategy

At least since the end of the 1960s a group of authors – particularly Balassa, Bhagwati and Anne Krueger– initiated a new school of thought based on neoclassical economics, known as ‘export-oriented industrialization’ (EOI). These authors have had a tremendous impact on Latin American policy makers since the 1980s and have little relationship with ‘neoliberal’ authors such as Friedrich von Hayek and Milton Friedman. Since the 1940s, the latter school has had a strong impact, particularly among South America dictatorships during the 1960s and 1970s, in Argentina, Brazil and Chile, among others. Several authors have discussed in-depth the impact of these policies (O’Donnell 1973, Foxley 1988 and Valdés 1995).

What are some of the conceptual differences between these schools? In brief, it is worth stressing that neoliberalism, as developed by Von Hayek and Friedman, is based on a stark theoretical polarization, i.e. counter to post-1930s communism, but also against other social movements linked to Keynesianism, socialism, Leninism, Trotskyism, and other ‘isms’, and in
general against ‘constructive rationalism’ (Hinkelammert 1984). Moreover, neoliberalism’s aggressive stance against totalitarianism justifies authoritarian systems against totalitarianism; even against democratic societies. As a result, the selection process among individuals and societies is of critical importance for neoliberalism. Neoliberal arguments are in some cases conceptually close to Fascism. The priority given to economic freedom over political freedom (Friedman 1962) is most relevant in this context. Thus, neoliberal thought proposes a theoretical, historical, economic and cultural system based on the market, the freedom of individuals, and private property. These arguments pave the way to evaluate prior societies and the ‘evolution of the human being’ based on the development of market freedom, and to conclude that capitalism and authoritarian political systems are compatible for the evolution of economic freedom.

On the other hand, many Latin American policy makers – most of them studying in the top US ‘Ivy League’ colleges – were in direct contact during their studies and other experiences with EOI, which has been academically predominant in the US since at least the 1970s. EOI’s authors have also been importantly influenced by associations with multilateral institutions such as the World Bank and the International Monetary Fund. The starting point of EOI is its critique of import-substituting industrialization (ISI) adopted by most developing countries, and not communism or socialism, since various forms of state interventions generate rent-seeking behavior and do not favour the classes that were to modernize the countries. EOI analyzes empirically the proposition that integration into the world market of any economic unit (firm, region, nation or group of nations) through exports will encourage economic growth and development. It also urges a macroeconomic market-friendly environment (Balassa 1981, Bhagwati and Krueger 1985, Krueger 1997).

Neoliberalism goes far beyond just legitimizing market forces, an issue that was raised as early as the eighteenth century by Adam Smith. Neoliberalism is much more aggressive and may be considered antidemocratic, since it supports the elimination of individuals/groups/societies that are not able to integrate or adapt within a society based on economic freedom (Hayek 1981). Neoliberalism even goes far beyond economics as it proposes a revision of science, history, social development and cultural evolution. EOI, by contrast, is much more ‘economicist’, as it does not deal with issues that are not strictly economic. A discussion on supporting authoritarian regimes and the debate between economic and political freedom, for example, goes far beyond the scope of EOI.

The latter is relevant from several perspectives. Given the conceptual and policy differences between neoliberalism and EOI, it is possible to argue the pros and cons of neoliberalism in Latin America, and particularly in Mexico since the 1980s. In most of the cases, critiques of ‘neoliberalism’ during the 1990s assume somehow – generally without clear historical and conceptual distinctions – that the economic policies of
Salinas de Gortari and Pinochet, for example, are similar. This, again, is conceptually and historically misleading.

Moreover, most discussions and critiques to ‘neoliberalism’ do not analyze the specificities of EOI and its implementation, and particularly the related search for alternatives. In Mexico, as well as in most of Latin America, the ‘critiques’ and ‘alternatives’ to neoliberalism seem to be worse than Don Quixote de la Mancha, since there are not even windmills to tilt against: all important political parties during the 1990s, including PRI, PAN and PRD, have distanced themselves from neoliberalism, and even former president Salinas de Gortari, rather cynically, has published his own alternatives to ‘neoliberalism’ (Salinas de Gortari and Mangabeira Unger 1999).

In what follows we define the implementation of EOI in Mexico specifically, as a liberalization strategy. While such labeling is relatively irrelevant, it is important to define in conceptual and historical terms the new development strategy, both in order to evaluate it and to propose alternatives.

6.1.1 Liberalization strategy in Mexico since 1988

Mexico followed an import-substituting industrialization model since at least Lázaro Cárdenas (1934-40) that attempted to develop national and ‘priority’ sectors of Mexico’s economy, as well as its domestic activities in general, in order to modernize the economy and society through industrialization. In spite of significant successes for the ISI-period, the crisis of ISI emerged as a result of the incapacity of the private manufacturing sector – which was enhanced through direct and indirect state interventions throughout the period – to generate forward and backward linkages. The increasing trade deficit of the sector, added to an authoritarian political system, caused increasing current-account deficits and overall balance of payment difficulties throughout the 1970s and 1980s.

Mexico’s crisis in 1982, which initially resulted from the private and public sectors’ inability to service foreign debt, did not merely reflect ‘solvency’ or ‘liquidity’ crisis, but the underlying unsustainability of the ISI strategy. Oil revenues and massive international credits were not sufficient to finance the crisis of ISI since the late 1960s (Brailovsky et al. 1989, Ros 1991). The specific international conditions, particularly of the US, did not allow the roll-over of old international credits after 1982. Paradoxically, it was the demand for capital by the US economy that increased interest rates and changed capital flows to the US and other OECD nations. This resulted in the widespread inability to service external debt after 1982, causing the ‘international debt crisis’ of the 1980s. Moreover, in 1979–80 the two-fold increase in oil-prices caused an exaggerated estimation of future oil revenue (Gurría Treviño 1993), whereas prices began to fall in 1982 and eventually collapsed in 1986.

The Salinas administration became the starting point of the liberalization
strategy in 1988. The charm of export-oriented industrialization, the widespread contacts of Mexican policy makers with US academic institutions and government officials, in which export-oriented industrialization was the conceptual mainstream, encouraged the implementation of liberalization strategy.

Mexico's liberalization strategy was consolidated by a series of economic pacts (Pactos Económicos), the first one in December 1987. These pacts – which included wage ceilings and allowed for an ex post indexing of wages – were negotiated jointly by union officials, the government and the private sector. The pacts became the centerpiece of the new strategy under the Salinas administration, which Zedillo has continued with few changes since 1994.

The major pillars and guidelines of this strategy of liberalization, in sharp contrast to ISI, are as follows (Zabludovsky 1990, Córdoba 1991, Aspe Armella 1993, Gurría Treviño 1993, Martínez and Fárber 1994, Zedillo 1994, Dussel Peters 2000):

1. Macroeconomic stabilization would be used to induce the process of microeconomic and sectorial growth and development, i.e., all sectorial and specific policies were to be abolished in favor of neutral policies. Significant savings were expected for the abolition of direct and indirect subsidies.

2. The government’s main priority would be to stabilize the macroeconomy. Since 1988, the government has viewed controlling inflation rates (or relative prices) and the fiscal deficit, as well as attraction of foreign investments – the main financing source of the new strategy, since oil revenues and foreign credits would be insufficient – as the main macroeconomic variables or priorities of liberalization strategy, backed by restrictive money and credit policies by the Banco de México.

3. The exchange rate would be used as a nominal anchor to control the inflation rate, i.e. since the inflation control was one of the priorities of macroeconomic stabilization, the government would not allow devaluation, which would impact on inflation through higher prices on imported inputs.

4. Through the reprivatization of the banking system beginning in the mid-1980s, and privatization of state-owned industries (paraestatales), the private sector was to lead Mexico’s economy out of the ‘lost decade’ of the 1980s through exports. The major import liberalization process, initiated at the end of 1985, was supposed to help reorient the private manufacturing sector toward exports as a result of cheaper international imports.

5. Finally, government policies toward the labor unions were of utmost significance. As reflected in the pactos, only a few (government-friendly) labor unions were deemed acceptable to negotiate inside firms and with the government, while the rest were declared illegal.
This process, which involved violent disruptions of independent labor unions, has, since 1987, made national wage negotiations in Mexico possible within the framework of the successive economic pacts.

In this liberalization strategy it was of crucial importance to secure export channels. Otherwise, liberalization strategy would be doomed to fail, i.e. NAFTA and other negotiated trade agreements, including with the European Union, are functional and necessary for the liberalization strategy.

After the crisis of 1994–5 – the worst since the international crisis of 1929–33 – the government had not implemented new policies or changes to the liberalization strategy up to 1999. It stressed that the 'political and criminal events' (Banco de México 1995: 23) as well as the 'errors' of December 1994 were responsible for the outbreak of the crisis. Most remarkably, the government, even up to 1998, had not been able to present a clear analysis and lessons from the crisis. In the best of cases, and this perspective has been picked up internationally, the Mexican crisis has been addressed as a 'financial crisis'.

The Zedillo administration has been relatively coherent with liberalization strategy and particularly with its macroeconomic priorities (control of inflation and of the fiscal deficit, as well as attraction of foreign investments). After the crisis and beginning with the Zedillo administration, the Plan Nacional de Desarrollo 1995–2000 (PEF 1999) stresses the need to increase national savings through exports and foreign investments, within a framework of 'fundamental macroeconomic equilibrium' (PEF 1995: 145). Initial departures from this liberalization strategy, particularly regarding industrial policy, were abandoned and viewed as unnecessary after the apparent economic recovery of the Mexican economy since 1996.

It is in the context of the crisis of December 1994 that liberalization strategy posits that a 'second generation' of reforms is required: 'macroeconomic stability and the removal of allocation distortions will be necessary, but certainly not sufficient ...' (Edwards and Burki 1995: 9), i.e. liberalization strategy will have to be deepened in order to achieve success. This view acknowledges that the strategy has already been successful regarding macroeconomic priorities, as well as productivity and export growth, but still requires the removal of profound distortions, particularly in the labor market and regarding social issues and social security. This view stresses that the direction of reforms is generally correct, but they have to further the privatization of education and social security, abolish labor market restrictions and minimum wages, among others, that generate perverse incentives and hinder growth (World Bank 1995a, b). From this perspective, liberalization strategy, and independently of the 1994 crisis, still has a long way to go.

Up to the end of 1998, the Mexican government has continued, with few exceptions, coherently with liberalization strategy. Emphasis
continues on the private export-oriented sector as the basis for economic growth, on privatization and import liberalization, as well as the abolition of most subsidies – culminating at the beginning of 1999 with the abolition of subsidies for tortillas and most commodities of the ‘basic food basket’ – as well as on services and credits. In addition, there is a focus on making labor laws more flexible and on the falling tendency of real wages.

Perhaps the most significant incoherence of liberalization strategy in its own terms has been the massive public bailout of the financial sector, with estimated costs of around 20 percent of GDP in 1999. The privatization of public banks at the beginning of the 1990s resulted in a boom of credits for consumption goods and real estate. Given the positive expectations that liberalization strategy generated under the Salinas administration, both nationally and internationally, and high real interest rates, the crisis of December 1994 resulted in massive bad loans for the recently privatized financial sector. The government, however – and in contradiction to its policy regarding social issues, small and medium enterprises, subsidies and industrial policy, among other issues – decided to bailout the banking sector and to socialize its losses.

6.2 The impact of liberalization strategy

The following section will examine the impact of liberalization strategy from different perspectives. The first part will analyze the macroeconomic impact of liberalization strategy. The second and third parts will include the impact on manufacturing and on a specific region and sector in Mexico: electronics in Jalisco.

6.2.1 Macroeconomic impact

It is relevant to stress that, strictly from liberalization strategy’s perspective, several contradictions arise, including:

1. Given the obsession of liberalization strategy with inflation - since neoclassical theory and EOI emphasize that relative prices send signals to producers and consumers to efficiently allocate their resources - the real exchange rate will have a tendency to overvalue. However, this inherent real exchange overvaluation will have a negative impact on interindustry trade and will generate incentives for overall imports.

2. The government will have to increase real interest rates, compared to other international markets in order to attract foreign investments. This policy, however, will also have a negative impact on domestic investment.

Table 6.1 reflects some of the most relevant tendencies in the Mexican economy since the implementation of liberalization strategy. First of all, it
### Table 6.1 Main macroeconomic variables

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<td>58.9</td>
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<td>43.1</td>
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<td>22.0</td>
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Sources: Author's estimations based on data from CEPAL, INEGI and Banco de México.

Notes
1 Preliminary. 2 Treasury bills (CETES), 28 days, average of period. 3 Refers to total income less total expenditures of public sector. 4 Billion $US.
has to be stressed that this strategy, in its own terms, has been relatively successful in the control of inflation and the fiscal deficit, as well as the attraction of foreign investments. Inflation has fallen significantly since 1988 and, with the exception of the 1994–5 crises, has remained under 30 percent since 1989 (Table 6.1, Figure 6.1).

Similarly, the fiscal deficit has been controlled since 1988, particularly if compared to the 1980s. Similarly, foreign investments for 1988–98 have soared impressively, amounting to a cumulative $160 billion. Mexico has probably been one of the most successful nations since 1988 in attracting foreign investments. Finally, exports have been, without doubt, the main motor of accumulation of Mexico’s economy. The annual average growth rate of exports was 11.5 percent, more than three times higher than GDP growth for the period. Moreover, exports have substantially increased their weight in GDP since 1988: from levels below 20 percent of GDP during the 1980s to over 30 percent since 1995 for total economy.

Nevertheless, it is important to expand this rather primitive perspective on macroeconomics to include some other traditional macroeconomic variables. Table 6.1 reflects for 1988–98 that:

1. Growth of GDP and GDP per capita, with strong oscillations for the period, have been significantly below levels achieved during ISI.
2. Gross savings as a percentage of GDP have declined since 1988 and have only been able to increase after the crisis of 1994–5. Until 1994, foreign savings increased substantially. Moreover, the ratio of gross fixed investments on GDP since 1988 have not been able to achieve levels similar to those of the 1980s and, most importantly, private gross fixed investment has been unable to counter-balance the fall of public gross fixed investments.
3. Although foreign debt as a percentage of GDP and foreign debt service have fallen since 1988, they still present relatively high levels, above 30 percent in 1997, and represent a threat to the overall economy. International or domestic instabilities, with an impact on capital inflows, can quickly bring back the issue of Mexico’s foreign debt.
4. As discussed earlier, exports have shown outstanding dynamism since 1988. However, so have imports. The trade balance as a percentage of GDP, not including maquiladora activities, increased from −0.52 percent in 1988 to −6.94 percent in 1994, and fell again in 1995–6 as a result of the crisis. Thus, and rather ironically, export-oriented industrialization since liberalization strategy has resulted in an import-oriented industrialization.

Several other issues are relevant for understanding Mexico’s deep macroeconomic changes since its liberalization strategy. On the one hand, real wages, both for the overall economy and minimum wages, have fallen
Figure 6.1 Inflation rates 1980–98 (average annual percentage).

Source: Table 6.1.
dramatically since 1988, and represent in 1998, an estimated 57 percent and 29.5 percent of 1980, respectively. This tendency is strongly related to the economy's inability to generate employment and to absorb the increasing economically active population (EAP). For 1988–96 EAP increased by 9.4 million (PEF 1999), while formal employment increased by 4.2 million, i.e. 5.2 million or 55.06 percent of EAP did not find a formal job during this period (Dussel Peters 1998). These tendencies are complementary to data on employment generation by micro, small, medium and big firms.

As reflected in Figure 6.2, micro, small and medium firms (MSMF) have been hardest hit during the liberalization strategy with respect to employment generation, but also regarding the generation of new establishments in manufacturing. Employment share of MSMF fell from 49.79 percent in 1988 and levels above 50 percent during the 1990s to 42.81 percent in 1998, and MSMF, in contrast to other periods, only generated 26.29 percent of total employment for 1988–98.

Firm level data for exports show some other relevant aspects of the economy. Mexico's exports, the motor of accumulation since 1988, have not only been highly concentrated, but also reflect an increasing economic polarization. Between 264 and 312 firms, added to maquiladora exports, account for 93.65 percent of total exports in average during 1993-8 (Figure 6.3). As a result, the rest of Mexican firms – more than 2.8 million according to the last Census of 1998 – participate only marginally in export activities. It stands out that majority owned foreign firms – between 54 and 68 firms for the period – have substantially increased their export share. In spite of these tendencies, the main exporting firms and maquiladoras – around 3,300 firms in 1998 – account for only 5.59 percent of total employment in average for the period. This is probably one of the most striking features of Mexico's export-oriented sectors in general: their inability to absorb the increasing economically-active population.

6.2.2 Impact on manufacturing

It is in this general context that the general tendencies of manufacturing sector can be appreciated more in depth. Table 6.2 reflects some of the general features and tendencies of Mexico’s manufacturing sector since 1988, including:

1 Manufacturing’s GDP growth oscillated strongly for 1988–98 and its AAGR was 4.6 percent, higher than overall economic growth of 3.4 percent. As a result, the share of manufacturing’s output in total GDP increased slightly for the period and has remained at around 21 percent of total economy’s GDP since 1995.

2 The share of manufacturing’s employment in total employment has fallen significantly, from 12.61 percent in 1988 to around 12 percent in 1997. This tendency not only reflects a higher capital intensity of the
Figure 6.2 Employment of micro, small and medium firms (MSMF) and big firms (Manufacturing sector only).

Source: Author’s calculations based on IMSS.
Figure 6.3 Share of maquila and main 300 exporting firms over total exports and employment 1993–8.

sector (net capital stock/employment) than the rest of the economy, but also limitations in generating employment.

3 In terms of productivity, manufacturing has outperformed the rest of the economy. Labor and capital productivity has increased by 27.2 percent and 15.02 percent during 1988–97, both at significantly higher growth rates than the total economy.

4 Manufacturing has probably performed most successfully in terms of exports. Not including maquiladora activities, manufacturing’s share has increased from 63.41 percent in 1988 to more than 80 percent of total exports of goods in 1998.8

5 However, and in spite of the GDP and export growth, manufacturing has not been able to overcome its most severe structural limitation since import-substitution: its high trade deficit. Thus, while exports have been increasing, so have imports, resulting in a high, increasing and unsustainable trade deficit. This lack of endogenous growth conditions, which has deepened since liberalization in 1988, reflects that manufacturing increasingly requires imports to allow for GDP and export growth. Thus, the trade deficit increased sharply, from $6.2 billion in 1988 to $32.6 billion in 1994, and fell in 1995 as a result of the crisis. Since the apparent recovery of Mexico’s economy in 1996, the trade deficit in manufacturing has again increased substantially. It is important to recall that this trade deficit by no means generates an automatic mechanism for its own financing (Banco de México 1995). On the contrary, Mexico’s economy and society have to finance these deficits by different means, either by achieving a trade surplus in other sectors (such as oil, agriculture, tourism or other services) or by attracting foreign investments through high real interest rates.

6 Independent of its absolute value, it is also important to relate the trade deficit to manufacturing’s GDP, i.e. as a coefficient that reflects the penetration of net imports. From this perspective, the trade balance/GDP coefficient increases from −15.40 percent in 1988 to −44.90 percent in 1994. These high levels had never been reached in Mexico since the 1960s (Figure 6.4). After the crisis of 1995, and as a result of GDP growth in manufacturing and the economy as a whole, the trade balance/GDP coefficient has picked up again.

The latter tendencies have also been corroborated at the branch level (Dussel Peters 2000):9

1 The most dynamic export-oriented branches during 1988–96 (automobiles, electronic equipment, other textile industries, household appliances, machinery and electric equipment and soft drinks and flavorings) significantly increased their share of manufacturing’s GDP from 10.61 percent in 1988 to 18.28 percent in 1996. The latter tendencies are dominated by the automobile and electronic
Table 6.2 General tendencies of the manufacturing sector (1988–98) (does not include maquiladora activities)

<table>
<thead>
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<tr>
<td><strong>GDP</strong>¹</td>
<td>-</td>
<td>7.9</td>
<td>6.8</td>
<td>3.4</td>
<td>4.2</td>
<td>-0.7</td>
<td>4.1</td>
<td>-4.9</td>
<td>10.8</td>
<td>10.0</td>
<td>7.4</td>
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<td>3.4</td>
<td>1.0</td>
<td>2.2</td>
<td>-2.1</td>
<td>-2.1</td>
<td>-5.3</td>
<td>6.9</td>
<td>8.7</td>
<td>5.0</td>
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<td><strong>Employment</strong>²</td>
<td>12.61</td>
<td>12.79</td>
<td>12.62</td>
<td>12.38</td>
<td>12.44</td>
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<td>11.50</td>
<td>11.21</td>
<td>11.60</td>
<td>12.14</td>
<td>12.00</td>
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<tr>
<td><strong>Labor productivity (1988 = 100)</strong></td>
<td>100.00</td>
<td>98.54</td>
<td>103.77</td>
<td>107.17</td>
<td>106.82</td>
<td>110.02</td>
<td>117.72</td>
<td>119.21</td>
<td>125.37</td>
<td>127.21</td>
<td>-</td>
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<tr>
<td><strong>Labor productivity (total economy = 100)</strong></td>
<td>136.48</td>
<td>134.22</td>
<td>138.04</td>
<td>141.13</td>
<td>139.05</td>
<td>141.72</td>
<td>147.78</td>
<td>156.30</td>
<td>158.65</td>
<td>156.66</td>
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<td>100.00</td>
<td>111.09</td>
<td>123.98</td>
<td>127.54</td>
<td>129.53</td>
<td>120.41</td>
<td>116.67</td>
<td>105.48</td>
<td>115.02</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>Capital productivity (total economy = 100)</strong></td>
<td>43.25</td>
<td>45.96</td>
<td>48.60</td>
<td>49.81</td>
<td>50.76</td>
<td>48.12</td>
<td>46.44</td>
<td>46.23</td>
<td>49.50</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>Exports goods¹</strong></td>
<td>-</td>
<td>6.4</td>
<td>8.7</td>
<td>6.1</td>
<td>9.3</td>
<td>10.8</td>
<td>24.1</td>
<td>35.2</td>
<td>22.2</td>
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<td><strong>Exports goods²</strong></td>
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<td>60.70</td>
<td>57.96</td>
<td>63.80</td>
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<td>69.84</td>
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<td>122.81</td>
<td>134.23</td>
<td>148.67</td>
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<td>304.73</td>
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<td>385.03</td>
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<td>24.6</td>
<td>22.9</td>
<td>23.6</td>
<td>0.4</td>
<td>20.3</td>
<td>-27.7</td>
<td>24.1</td>
<td>28.12</td>
<td>14.50</td>
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<tr>
<td><strong>Imports goods²</strong></td>
<td>90.33</td>
<td>91.18</td>
<td>92.70</td>
<td>94.12</td>
<td>93.69</td>
<td>94.77</td>
<td>94.40</td>
<td>93.71</td>
<td>91.94</td>
<td>93.59</td>
<td>94.00</td>
</tr>
<tr>
<td><strong>Imports goods (1988 = 100)</strong></td>
<td>100.00</td>
<td>122.32</td>
<td>152.41</td>
<td>187.24</td>
<td>231.47</td>
<td>232.32</td>
<td>279.44</td>
<td>201.92</td>
<td>250.64</td>
<td>321.11</td>
<td>359.30</td>
</tr>
<tr>
<td><strong>Trade balance /GDP</strong></td>
<td>-15.40</td>
<td>-23.70</td>
<td>-30.16</td>
<td>-34.84</td>
<td>-43.70</td>
<td>-39.24</td>
<td>-44.90</td>
<td>-13.69</td>
<td>-17.70</td>
<td>-26.44</td>
<td>-30.00</td>
</tr>
</tbody>
</table>

Source: Authors's calculations based on INEGI (Sistema de Cuentas Nacionales and BDINEGI) and Banco de México.

Notes
1 Annual growth rate.
2 Percentage over total economy.
3 Estimations.
Figure 6.4 Trade balance/GDP (percentages).

Source: Author's calculations based on INEGI (not including maquiladoras).
equipment sectors, with an average annual growth rate of 12.8 percent and 9.9 percent for 1988–96, respectively.

2 As noted earlier, export-oriented branches generate employment that is much less than expected given their export and GDP performance. Their share increased from 14.68 percent in 1988 to 17.39 percent in 1996. The automobile sector, on the other hand, generated 1.30 percent of manufacturing employment during 1988–96 and 0.08 percent of total economy’s employment for the period.

3 Real wage tendencies present some of the most outstanding features of export-oriented branches. If comparing the respective branch’s real wages with manufacturing, particularly export-oriented branches as a group, present real wage levels similar to the rest of manufacturing, while other non-export-oriented branches present in 1996 levels more than 20 percent above manufacturing. These tendencies, without doubt, require more in-depth analysis. However, they reflect that there is per se no positive association between export-oriented activities and real wages in Mexico’s manufacturing sector. These tendencies also reflect the quality of new employment, considering that real wages have fallen dramatically in Mexico for the period.

4 Labor and capital productivity have also increased substantially for the period. However, export growth has probably been the most outstanding feature of manufacturing, even if maquiladora activities are excluded. Export-oriented branches increased their share of total manufacturing from 18.64 percent in 1988 to 40.96 percent in 1996. Only the automobile sector increased its share from 11.33 percent of manufacturing’s exports to 29.55 percent for the period.

5 Imports, on the other hand, have been at least as dynamic for the period and have generated an accumulated trade deficit for manufacturing of $161 billion for 1988–96. For the sector as a whole, imports increased by 179.4 percent during 1988–94 and fell as a result of the crisis of 1994–95. Moreover, export-oriented branches have reported the most relevant import dynamism for 1988–96. As a result, practically all manufacturing branches generate a trade deficit. The automobile industry is probably the only important exception for the period, generating a trade surplus of $39.6 billion. However, if we include the balance of the motors and autoparts sector, which imports most of the inputs of the automobile sector, the trade surplus only amounts to $3 billion for 1988–96.

6 These tendencies result in an increasing trade balance/GDP coefficient, with negative sign, since 1988, and accounting for −44.90 percent (or a trade deficit of −32.6 billion for manufacturing in 1994). As a result of the crisis and falling domestic demand, the coefficient fell in 1995, but has picked up again as soon as the economy resumed growth. Thus, one of the most relevant features of manufacturing is its lack of endogenous growth conditions; i.e. even the most dynamic
export-oriented sectors since liberalization require increasing imported inputs to allow for a given growth of GDP and exports. This has profound impacts on Mexico’s economy regarding employment generation, overall linkages to other sectors and regions, as well as learning processes, among other variables.

6.2.3 Regional aspects

Analysis of regional development has, so far, received little attention in Mexico. Some authors (Dávila Flores 1999, Dussel Peters 1999, Ruiz Durán 1999) have stressed that, in step with macroeconomic and manufacturing tendencies, there are polarization tendencies, as a few regions, particularly those in the Northern border linked to foreign investments inflows and maquiladora activities, have increased their dynamism in terms of GDP and GDP per capita since 1988. Similarly, the traditional economic political centers of the country – particularly Mexico City – have regained weight. However, most of regions, particularly in Southern Mexico – with the exception of Quintana Roo as a result of tourism – have not integrated to export-oriented activities and overall economic development.

This part will briefly evaluate the relatively successful electronic sector in Jalisco. The goal of the analysis will be to present, in summary, the industrial organization that has emerged in this specific sector in order to elucidate prior issues raised for manufacturing and the overall economy.

6.2.3.1 The electronic industry in Jalisco

The electronic industry in Mexico, as well as the automobile sector, has been one of the most successful branches of Mexico’s manufacturing sector since 1988. As discussed earlier, electronic equipment stands out in terms of GDP, export, labor and capital productivity growth, among other variables. Exports AAGR increased by 22.9 percent during 1988–96, but trade balance/GDP coefficient also increased from -110.89 percent in 1988 to -143.94 percent in 1996. Thus, similar to most of Mexico’s manufacturing, this particular branch presents an increasing lack of endogenous growth since liberalization strategy.

In the particular case of Jalisco, electronics reflect an impressive growth in terms of GDP since 1980 and its share over Mexico’s electronic industry increased from 2.93 percent in 1980 to above 12 percent after 1995. Total exports have also increased dramatically, accounting for a growth rate above 100 percent for 1994–7 to an estimated $6.5 billion in 1997. The United States (63 percent of total exports in electronics in 1997) is the main recipient. The three main exporting firms in Jalisco (IBM, Motorola and Kodak) are all electronic firms. IBM, SCI Systems, Motorola and Lucent Technology accounted for 94.9 percent of total exports in electronic products of Jalisco in 1996.
The electronic industry in Jalisco has specialized in computer products such as PCs, laptops, printers, telephones, floppy disks, semiconductors, cables, beepers and other electronic components and final goods. According to input–output matrixes, the electronic industry in Jalisco accounts for the lowest national and regional integration level in 1996 (CEED/UDG 1997). Until 1997, the electronic cluster in Jalisco included more than 70 firms, 28,000 direct and more than 100,000 indirect jobs, as well as 53 percent of Jalisco’s exports.

In this context, what are the main characteristics of the electronic industry in Jalisco?

1. After the initial establishment and expansion of IBM in Jalisco in the mid-1980s, a significant cluster of electronic firms initiated activities in Jalisco during the 1990s. These two generations also had different reasons for establishing in Mexico. While the first generation was attracted by cheap labor power, proximity to the US and various government programs, the second generation, in addition, include NAFTA, macroeconomic and foreign direct investment policies and the Latin American market. The second generation, moreover, is also clearly a result of a process of ‘cumulative causation’, i.e. new subcontracting and specialized firms established in Jalisco as a result of the already existing cluster and demand in the region.

2. In general, Jalisco’s electronic industry reflects a ‘squeezed’ or ‘funnel-like’ value-added structure. This is a result, on the one hand, of few existing regional and national suppliers, and on the other, second and third-tier firms are foreign-owned and import most of their inputs, including basic raw materials.

3. With few exceptions, the electronic industry in Jalisco has specialized in assembly activities. Most firms operate formally or informally as maquiladoras, with a low level of linkages with the rest of the economy and domestic value-added. Why has this industrial organization evolved? Some research (CEPAL 1998) shows that ‘first generation’ electronic firms in Jalisco generated supplier systems and firms for products that were ‘necessary’, i.e. processes and products such as packaging, and plastic injection, among many others, which are too expensive to be imported substantially, particularly due to their high volume. In this case, transnational corporations themselves developed the supplier firms, supporting them through engineers, technology and, in some cases, even financially. Besides such ‘necessary’ products and processes, the second generation of firms have become established in Jalisco with a system based on imported supplies, i.e. they negotiate contracts with a group of TNCs to supply them, with most of their inputs imported. For this reason such an industrial organization generates rather perverse structures. Since TNCs will continue importing raw materials, components and parts if they do not find them in
the local or national market, while potential regional and national suppliers simply acknowledge too wide a technological and financial gap for the potential buyers. Few regional and national attempts have been made to overcome this rational, but perverse, industrial organization.

4 Few firms in Jalisco operate as original equipment manufacturers (OEM) and are viewed as an important step forward in the value-added chain in electronics, particularly in those processes that were defined as ‘necessary’ for client firms. However, it is also important to highlight that client firms maintain a strict and overall control of the OEM firms. Strict specifications regarding production inputs, suppliers, raw materials, machinery and international organization of the firm do not only reflect this direct control of the client-firm, but also present the difficulties to open new windows for suppliers in the region.

5 Until 1999, few government efforts have been undertaken to overcome these structural constraints. At the national level, the government continues with horizontal industries policies in order not to affect any specific activity, sector, and/or region and not to contradict macroeconomic aspects of liberalization strategy. At the regional level, the opposition government since 1995 has developed several programs to address some of these difficulties. But given Mexico’s political and economic centralist structures, regional governments have few resources to face these kinds of structures.13

The pre-existing structures reflect the difficulty to overcome this rational, but perverse industrial organization. The development of Jalisco’s electronic cluster would have been unimaginable and impossible without policies implemented since liberalization, with an important impact on exports and employment in the region. Moreover, Jalisco’s electronic exports have boomed during the 1990s and a few regional and national suppliers have integrated into the electronic cluster in Jalisco. However, the electronic cluster in Jalisco has generated a structure with little learning effects and little potential for generating endogenous (regional and national) growth conditions in the medium and long run.

6.3 Conclusions

The first part of this chapter stresses the relevance of historical and conceptual clarification and the misleading use of ‘neoliberalism’ for understanding most of Latin America’s development strategy since the 1980s. In the Mexican case, neoliberalism is not related to export-oriented industrialization and particularly to liberalization strategy.14 This is theoretically relevant, but particularly important for viewing economic and political issues and to raise alternatives to the development strategy since the
1980s. Otherwise, critiques to ‘neoliberalism’ will be worse off than Don Quixote de la Mancha tilting at windmills centuries ago.

Mexico’s liberalization strategy began with the series of Pactos Económicos in December 1987. As analyzed, the liberalization strategy involves export-oriented industrialization and assumes that the integration within the world market of any economic unit has to be established through exports, which will have a positive impact on productivity, economic growth and overall development. In aggregate terms the liberalization strategy has been relatively successful in its own terms, i.e. it has managed to control macroeconomic conditions – control of inflation and fiscal deficit, as well as in attracting foreign investments – while achieving enormous successes in export growth and productivity.

It is important to stress that liberalization strategy in Mexico has not been an overall failure, as some critics allege. This strategy has been able to encourage intrafirm trade and linkages, and particularly with the US through US firms. They have been able to generate significant global commodity chains and transnational networks. These firms, including Mexican grupos (Garrido 1998), have been able to generate a worldwide and North American regional integration process. NAFTA and other trade and investment agreements have been significant in this respect. Automobiles and auto parts, electronics, maquiladoras in general, garments, among many other branches, reflect these tendencies. These activities have been able to advance some of macroeconomic variables in aggregate terms.

However, liberalization strategy and worldwide and US integration since 1988 has also resulted in increasing economic polarization. Export-orientation has been accomplished only by a small group of branches and firms, while most Mexican firms remain separate from these activities. Polarization, from this perspective, means an increasing concentration of a relatively small number of ‘successful’ firms, branches and regions. However, these firms, branches and regions – although successful in terms of exports, GDP and productivity – have not been able to generate endogenous growth conditions, i.e. to link their activities to regional and national territories. Further, they have generated a ‘perverse’ industrial organization that led to Mexico’s crisis of 1994–5 and that has not been able to solve Mexico’s economic, social or regional polarization. On the one hand, export-oriented activities have generated an increasing trade deficit, which has to be financed by other sectors and classes of Mexico’s society. Increasing dependency on foreign investments reflects the financial fragility of the liberalization strategy. Moreover, as a result of global commodity chains and overall productivity gains, the share of export-oriented firms, branches and regions to overall employment and employment generation, as well as to real wages, has been dismal. The case of the electronic industry in Jalisco shows that, like most of manufacturing, it has not been able to generate learning processes and supplier systems, both regionally and nationally, for economic sustainability and overall
economic and social endogeneity. Being successful mainly *in their own terms*, they do not solve the problems of a nation of more than 95 million inhabitants. Under these structures and industrial organization, a continuation of the liberalization strategy and integration to the world market, particularly to the US, will further polarize Mexico's economy and society. The generation of unsustainable economic conditions in manufacturing — since it requires increasing net imports to grow in terms of GDP and exports — will also deepen macroeconomic unsustainability, while the system remains fragile.

From this perspective, critiques of 'neoliberalism' for Mexico's strategy since 1988 is rather useless. Rather, it is necessary to discuss, in detail, the theoretical and policy implications of export-oriented industrialization and of the existing liberalization strategy. Altogether different theoretical and policy paradigms are necessary to suggest alternatives. Otherwise, imagine that liberalization strategy policy makers acknowledge the need of 'interventions', but admit at the same time that there are no resources to finance these programs, as a result of liberalization strategy's priorities. Or, even worse, they design policies to make Mexico's export-oriented firms, branches and regions more competitive. However, as discussed, Mexico, in the aggregate, is already 'competitive'. Polarization, from this perspective, can only be overcome through an alternative to liberalization strategy's rationality and growth path.

**Notes**

2. During 1940–81, GDP and GDP per capita increased annually by 6.1 percent and 3.3 percent, respectively, while employment also accounted for a positive development in absorbing most of the economically active population (Dussel Peters 1997).
3. As Aspe Armella (1993) stresses, lowering the inflation rate was the crucial targeted variable since high inflation rates, caused in general by domestic demand, but particularly by inertial tendencies of real wages, did not allow for improvements in the fiscal deficit during 1982–7.
4. The *Programa de Política Industrial y Comercio Exterior* (1995–2000), for example, stressed that industrial policy could not be left to spontaneous market forces, but required an 'active industrial policy' (PEF 1996: 33).
5. For a full discussion, see Dussel Peters (2000).
6. Without doubt, it can be argued that these macroeconomic variables are not sufficient for evaluating macroeconomic aspects, as reflected in any neoclassical textbook. However, issues such as employment, real wages, investments and savings, among other variables, are a consequence of the macroeconomic priorities according to EOI and liberalization strategy.
7. Data provided by Instituto Mexicano del Seguro Social (IMSS). This data only includes employment in manufacturing.
8. If we include maquiladora activities as part of the manufacturing sector, its share increased from 59.71 percent in 1988 to 90.57 percent in 1998.
9. Mexico’s National Accounting System is divided in 73 branches, out of which
49 refer to manufacturing. This data does not include maquiladora activities and includes only the period 1988–96.

10 Even in sectors such as automobiles, where real wages have historically been higher than for the rest of the economy and manufacturing, real wage levels, compared to manufacturing, fell from 246.28 percent in 1988 to 188.82 percent in 1996.

11 See CEPAL (1998) and Dussel Peters (2000). Added to these studies, most of the qualitative analysis is a result of interviews with more than 20 computer-related firms in Jalisco during 1997–9.

12 According to official sources, the regional value-added of the sector is around 20 percent. However, these estimates include inputs of firms such as SCI, among many others, which imports most of its components and parts. Our estimates of value-added of this sector are significantly below 5 percent.

13 The Productive Chain for Electronic Industry (Cadena Productiva de la Industria Electrónica, CADELEC), has probably been the most important regional institution since 1995. CADELEC, supported by the regional government and electronic firms, attempts to develop supply chains based on the demand of existing firms in Jalisco.

14 As discussed, there are similarities between EOI and neoliberalism. It could even be argued that EOI is an extension of neoliberalism. This, however, has to be analyzed in depth, which, so far, has not been done.

15 It is not difficult to imagine that economic polarization also results in social and political polarization. Social turmoil and guerrilla movements in regions such as Chiapas and Oaxaca, some of the poorest regions in Mexico, and an increasing per capita income gap with other regions since 1988 (Dussel Peters 1999), reflect some of these tendencies.

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Mexico Beyond NAFTA
Perspectives for the European debate

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