The maquila industry for export (MIE) has turned into one of the main driving forces of economic growth in Mexico and of economic integration with the United States. Based on some brief background information, this article seeks to examine the MIE’s conditions and perspectives, particularly from the point of view of the Mexican economy. It is divided into three sections: the first briefly analyzes the background of the MIE, particularly in the context of the new development strategy implemented in Mexico since the end of 1987 and the temporary imports needed for export policy. The second section looks in more detail at MIE performance in the Mexican economy, emphasizing export trends, employment and inputs, using as a starting point the changes that came about both as a result of the implementation of the North American Free Trade Agreement (NAFTA) and the events of September 11, 2001. The last section points to some important trends for the MIE in the short and medium terms.

**BACKGROUND**

The MIE has played a preponderant role in the new strategy for growth and development followed since the Economic Solidarity Pact was signed in December 1987. This strategy, known as “liberalization,”\(^1\) breaks with import substitution industrialization, the socio-

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economic dynamic followed after the 1930s in Mexico, and is based on the idea that any socio-economic unit needs to be integrated into the world market directly through exports. With this new point of reference, these new socio-economic units—companies and regions, among others—emerge, and the state withdraws from its active, historic functions in the market and economic matters: the “minimalist” state has at its disposal, in the best of cases, horizontal or neutral policies that affect all actors in the same way, whether they be charangos (“hole-in-the-wall businesses”) or large multinational corporations, for example. From this perspective, the state’s active functions in a mixed economy are eliminated.

In that context, where private manufactured exports become the driving force behind economic growth in this proposed strategy, the MIE plays a significant role. Internationally, the maquila industry has become integrated into the growing international supply that transfers segments of global mercantile chains and the growing productive flexibility. In addition, and in the context of the opening to imports and NAFTA, the MIE has become one of the most dynamic export-fostering programs in the Mexican economy. It is important, however, to make a few observations about this:

1. While the maquila is currently one of the main pro-export programs in Mexico, it is not the only one. In contrast with many academic and political economy debates about the MIE, it is important to consider the processes that these programs and products carry out.

2. The “rationality” of temporary imports for export (ITE), which include programs like Altex, Pitex and the maquila industry, is based on: a) not paying import duties; b) not paying value added tax; c) practically speaking, not paying taxes on profits (Mexico’s impuesto sobre la renta or ISR); and 4) importing temporarily to then export.

3. The previously mentioned point is fundamental for understanding the structures of incentives for ITE, which can reach up to 70 percent of production. In contrast, companies and local or national processes that would like to take advantage of that structure face barriers or dis-incentives: to be part of the ITE, comparative costs are up to 70 percent higher.

4. To get an idea of the size of temporary imports for export, including the maquila industry, in the years from 1993 to 2000, while the MIE accounted for 44.38 percent of total Mexican exports, temporary imports for export accounted for 78.47 percent, or 34.08 percent more. In the case of electronic industry exports to the United States, for example, ITE represented 99.06 of exports from 1998 to 2001.

Lastly, it is important to mention that the ratio of Mexican exports to the gross domestic product has increased from under 8 percent in the early 1980s to almost 25 percent at the end of the 1990s. As of the second half of the 1990s, manufacturing represented 85 percent of all exports. On the other hand, it should be noted that almost 90 percent of total exports were destined for the United States.

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statistics have been available. This is due to the generalized recession in the United States, where almost all exports from the MIE go, the recession and/or crisis which specific sectors are going through globally (for example, the electronics industry since 2000), as well as the low competitiveness of Mexico's production, including the MIE. The current situation can be summarized as follows:

a) Since June 2001, active establishments have dropped in number significantly, both on the northern border and in the rest of the country. In August 2002, compared to the same month the previous year, 493 establishments had closed nationwide, more than half located in Baja California, a state that is home to a little under 30 percent of all MIE plants (see graph 1). States like Chihuahua have seen less negative performance than other states. The average annual growth rate of MIE establishments had begun to drop, although it continued to be positive, in mid-1996.

b) Since the late 1990s, employment in the MIE, more than 95 percent of which was concentrated in the border area, has dropped to less than 80 percent in that region. In addition, in May 2000, the employment growth rate of the MIE reached a maximum of 15.2 percent, and since then has dropped; since May 2001, it has even been negative. Just like the number of establishments, in 2002 MIE employment is in the worst crisis it has ever seen since statistics were first established in 1980: for several months it dropped by close to 20 percent and 259,000 jobs were lost between October 2000 (the month with highest employment levels) and May 2002. As of April 2002, this trend seemed to reverse itself, although the numbers were still negative. These trends are the same throughout the border area and the rest of the MIE (see graph 2). From this perspective, NAFTA generated a new growth for the maquila industry, which gradually dropped at the end of the 1990s. For the moment it is still not possible to say what the quantitative effects of 9/11 have been; in general, however, we can say that, in the worst of cases, it sharpened a trend that had already begun to manifest itself in the case of the MIE.

c) Graph 3 shows some of the recent changes the maquila industry has been through. On the one hand, in 2001, wages (calculated in 1994 pesos using December amounts for each year) were 2.5 percent lower than 1980 despite having recovered constantly since 1996. However, this relative recovery is still considerably below the rise in productivity levels (calculated as exports over employment), which, from 1980 to 2001, increased 203.7 percent.

d) In the 1990s, the MIE became the main industry with a surplus in its trade balance, generating U.S.$19.282 billion in 2001. Despite this, its degree of national integration has been very limited, particularly as a result of the "rationality" of temporary imports for export, as has already been pointed out. Graph 4 shows that the coefficient of national inputs to total inputs has seldom gone over 3 percent in the years between 1980 and 2002.

**Conclusions and Scenarios**

Since the 1980s, the MIE has become one of the main forces behind the growth of the Mexican economy and has been fundamental for understand-
ing the dynamic of the liberalization strategy currently in place. Its performance in terms of exports and productivity has been spectacular, although much more discrete in terms of real remuneration and the degree of integration with national production. The latter question is particularly a result of the incentives that were created for its establishment; these incentives became enormous dis-incentives for companies established in Mexico, with a different tax and trade regime. It should not be expected that the degree of integration will increase significantly in the medium and long term. These trends also reflect the fact that a small segment of the Mexican economy has become completely integrated into the U.S. economy, although with discrete linkages to the rest of the productive apparatus.

In the short and medium term, we can predict that the number of establishments and employment in the MIE will stabilize; employment will hover at around 1.2 million jobs. In contrast with the “golden years” of the 1990s, we should not expect that growth rates of over 20 percent will be seen again for several years. There are several reasons for this. On the one hand, the U.S., European and Japanese economies are not expected to grow vigorously in the short term. In the second place, the crisis or possible recession in sectors like the electronics industry may well continue in the short and medium term. In addition, the productive sector in Mexico has significantly lost competitiveness in recent years. The over-valued exchange rate in mid-2002 is an important factor; it has reached almost 40 percent, much higher than even the levels before the 1994-1995 crisis, according to the Central Bank. This implies, among other things, that while real wages in constant pesos have decreased in recent years, they have increased in dollars and, for foreign investors in the MIE, the increase is substantial in comparison with Asian countries, particularly China. Equally—and as a result of restrictive mone-
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Conversely compared to the gross domestic product, the loans given by the commercial banking sector to companies have dropped by more than 80 percent from 1994 to 2001. This trend substantially affects the potential for integrating domestic suppliers and their capability for financing. Lastly, it is important to mention an issue that has not been an object of much study or analyzed by the respective public bodies: NAFTA’s tariff controls are less important now; that is to say, the tariffs imposed on imports from other countries by the United States have benefited them substantially, whether they signed a free trade agreement or not. Thus, continuing with competitiveness programs based exclusively on lowering tariffs—which in any case have been driven down to almost zero percent in Mexico—would seem to have little potential for fostering competitiveness in Mexico. ñ

NOTES

1 For a detailed analysis of the conceptual origin, political objectives and expectations of the liberalization strategy in Mexico, see Enrique Dussel Peters, Polarizing Mexico. The Impact of Liberalization Strategy (Boulder, Colorado: Lynne & Rienner, 2000).

2 The author is referring to a much-talked about campaign promise by President Vicente Fox to finance changarros, or micro-companies, so every Mexican could be a business owner. [Editor’s Note.]


4 Currently, exporting companies can request their registration in a series of programs, including the maquila industry, the Large Exporter Program (Altex) and the Program of Temporary Import for Producing Articles for Export (Pitex), among others. They choose the program depending on their specific conditions, including the import tariff of the country the goods are exported to. Some companies may even be signed up in several programs for different kinds of production. In general, these programs allow companies an exemption from paying either VAT or tariffs, although they do have to pay tax on their profits (Mexico’s ISR). In practice, however—and something that should be looked into more in the future—the ISR is very low, nil or even negative. See José Luis Álvarez Galván and Enrique Dussel Peters, “Causas y efectos de los programas de promoción sectorial en la economía mexicana,” Comercio Exterior 51 (5) (Mexico City) 2001, pp. 446-456; and Roberto Schatan, “Régimen tributario de la industria maquiladora,” Comercio Exterior 52 (10) (Mexico City), 2002, pp. 916-926.

5 Schatan estimates that, for 2000, the maquila industry paid a rate of -7.2 percent ISR; this means that it was a net receiver of subsidies from the public sector. Roberto Schatan, op. cit.

6 All the statistics used in the following paragraphs have been calculated based on figures found in http://www.inegi.gob.mx and http://www.banxico.org.mx