

EL PASO Business Frontier



FEDERAL RESERVE BANK OF DALLAS EL PASO BRANCH ISSUE 3 • 2000

Maquiladoras 2000: Still Growing

The maquiladora industry in 2000 continued to grow at robust rates despite uncertainties in its economic environment, such as the prospect of a new, more burdensome fiscal regime.

Several key developments affected the maquiladora industry in 2000. First, maquiladoras had to confront the prospect of a new, more burdensome fiscal regime. Second, Mexico in July initiated a free trade agreement with the European Union (EU) that has important implications for maquiladoras. Finally, new NAFTA rules that begin in January 2001 were modified this year to ensure the industry's continued competitiveness. This article analyzes the first two of these developments and evaluates the industry's performance during January–September 2000. The next issue of *Business Frontier* will look at the new rules maquiladoras face under NAFTA and the rule modifications that were first announced in 1998 and completed this year.¹

2000 PERFORMANCE

The maquiladora industry is performing quite robustly despite uncertainties surrounding its fiscal regime and new NAFTA-related rulings this year. Among factors favoring the industry are the increasing strategic importance of maquiladora operations in worldwide manufacturing production and a healthy U.S. market—the destination of most maquiladora exports.

During January–September, maquiladora employment grew 13.4 percent relative to the year-earlier period, to 1.3 million workers, while the number of plants equaled 3,562, a 9.3 percent year-over-year increase. Total raw materials processed by the industry reached \$40.5 billion during January–September, 20.8 percent higher than during the same period last year. Value added, at \$12.7 billion through September, was 31.7 percent above its level a year earlier. This figure keeps the industry in the No. 1 position among Mexico's top foreign-exchange generators.²

Table 1
Maquiladora Industry Key Indicators

(January–September 2000)

		Percent change year earlier	
Plants	3,562	9.3	
Employment	1,271,268	13.4	
Total raw materials			
(billions of U.S. dollars)	40.5	20.8	
Imported			
(billions of U.S. dollars)	39.2	20.4	
Domestic			
(billions of U.S. dollars)	1.3	32.9	
Value Added			
(billions of U.S. dollars)	12.7	31.7	
Exports			
(billions of U.S. dollars)	57.3	24.8	

SOURCES: Federal Reserve Bank of Dallas El Paso Branch, with data from Instituto Nacional de Estadística, Geografía e Informática; export data are from Banco de México.

Finally, the maquiladora industry's consistent record of dynamic export growth continued into 2000. During the first nine months of the year, maquiladora exports grew 24.8 percent relative to the year-earlier period and reached \$57.3 billion. This represents almost 47 percent of Mexico's total exports and the majority—54 percent—of Mexico's manufacturing exports. Table 1 summarizes the maquiladora industry's key indicators for January–September 2000.

As shown in Table 2, the industry's three principal sectors—electric and electronics, transportation equipment, and textiles and apparel—all recorded important employment and production growth during the first nine months of the year. The electric and electronics sector—the industry's top employer and producer—registered growth of 14.2 percent in employment and 25.3 percent in production relative to the year-earlier period. While employment growth was higher in textiles and apparel than in the transportation equipment sector, both sectors registered similar production growth rates.

Regarding the maquiladora industry's regional performance, growth both at the border and in the interior has been strong this year. Through September, employment grew 11.5 percent at the border and 16.7 percent in the interior, relative to the year-earlier period. The border's employment reached more than 787,700 workers and represented almost 62 percent of total maquiladora employment, while the interior's maquiladora work force reached almost 483,550, making up the remaining 38 percent. Production at the border, which represents 71 percent of total maquiladora production, grew almost 22 percent during January–September; production in the interior rose nearly 26 percent.

Employment in the industry's top two locations—Ciudad Juárez and Tijuana—which together absorb more than a third (33.9 percent) of the entire maquiladora work force in Mexico,

Table 2
Maquiladora Industry Sectoral Performance

(January–September 2000)

	Production			Employment		
	Millions of dollars	Percent change year earlier	Percent share of total	Number of workers	Percent change year earlier	Percent share of total
Total	51,947.3	23.0	100.0	1,271,268	13.4	100.0
Electric and electronics	26,082.7	25.3	50.2	433,289	14.2	34.1
Transportation equipment	10,117.7	17.8	19.5	233,679	13.4	18.4
Textiles and apparel	5,052.5	17.7	9.7	279,889	14.6	22.0
Furniture and wood/metal products	2,024.5	27.9	3.9	60,078	11.7	4.7
Services	1,398.5	12.9	2.7	48,989	12.6	3.9
Chemicals	781.3	37.7	1.5	26,647	20.3	2.1
Machinery and tools	669.5	43.0	1.3	13,361	13.5	1.1
Toys/sporting goods	296.4	13.3	.6	15,057	15.9	1.2
Footwear and leather goods	261.5	1.0	.5	8,813	-5.4	.7
Food	237.3	15.6	.5	9,738	-16.5	.8
Other	5,025.4	27.4	9.7	141,728	12.6	11.1

SOURCES: Federal Reserve Bank of Dallas El Paso Branch, with data from Instituto Nacional de Estadística, Geografía e Informática.

Table 3

Maquiladora Industry Key Indicators: Top Two Locations*(January–September 2000)*

	Ciudad Juárez, Chihuahua			Tijuana, Baja California		
		Percent change year earlier	Percent share of total		Percent change year earlier	Percent share of total
Plants	308	16.7	8.6	779	6.4	21.9
Employment	246,127	13.6	19.4	184,756	16.3	14.5
Total raw materials (billions of U.S. dollars)	9.8	32.1	24.2	6.5	18.8	16.0
Imported (billions of U.S. dollars)	9.7	31.9	24.7	6.3	20.0	16.1
Domestic (millions of U.S. dollars)	108.9	52.2	8.4	142.7	-16.6	11.0
Value added (billions of U.S. dollars)	2.4	28.8	18.9	2.0	32.2	15.7
Gross production (billions of U.S. dollars)	12.1	31.3	23.3	8.3	22.7	16.0

SOURCES: Federal Reserve Bank of Dallas El Paso Branch, with data from Instituto Nacional de Estadística, Geografía e Informática.

grew 13.6 percent and 16.3 percent, respectively, through September (*Table 3*). Production growth during the same period was 31.3 percent in Ciudad Juárez and 22.7 percent in Tijuana.

Three interior states have surfaced as important maquiladora industry players: Jalisco, Puebla and Yucatán. Jalisco is the largest in production (\$2.1 billion) and the third-largest in employment (more than 28,700 workers) among interior states. Through September Jalisco represented almost 36 percent of total interior production and 13 percent of employment. Because of Jalisco's large concentration of higher-tech companies in the electric and electronics sector, it is now being dubbed the Silicon Valley of Mexico.³

Puebla is the top maquiladora employer among interior states and the second-largest in production. During January–September, maquiladora production in Puebla reached \$511.2 million and employment equaled nearly 37,600 workers. Yucatán's maquiladora production was \$506.7 million during the same period, and its employment surpassed 32,300 workers. These figures place Yucatán as the third-largest in maquiladora production among interior states and the second-largest in employment.

FISCAL REGIME

It is often said that maquiladoras do not pay taxes in Mexico. This is only partly true, as maquiladora companies do pay all applicable payroll taxes under Mexican law for their employees (social security and housing taxes, for example).

However, these companies do not pay a corporate income tax because they typically do not generate sales, and therefore direct income, in Mexico. Maquiladora production is usually sent to a corporate headquarters or distribution center in the United States or elsewhere in the world.

In 1994, however, the maquiladora industry saw the first change in its fiscal regime when Mexican authorities decided to subject the industry to transfer pricing rules. Under these rules, maquiladoras were required to pay taxes on their production, even when the product was not being sold into the market but simply transferred to the parent outside of Mexico. Hence, an "arm's length" or market price was set as the criterion in valuing each company's production to determine the taxable income portion (net of operating costs) of this production.

Thus, transfer pricing rules have obligated maquiladoras since 1994 to arrive at advance pricing agreements (APAs) that would establish the taxable income to be used to pay corporate income tax in Mexico. In place of an APA, Mexican authorities also presented maquiladoras with a "safe harbor" option in complying with transfer pricing regulations. Specifically, the safe harbor option considered as taxable income the greater of 5 percent of a maquiladora company's assets or 5 percent of its operating costs. In late 1998, Mexican authorities modified the definition of taxable income under the safe harbor option to be the greater of 6.9 percent of the maquiladora company's assets or 6.5 percent of operating costs.⁴

A much more profound change in the maquiladora industry's fiscal regime also occurred in late 1998 when Mexico announced that, as of 2000, maquiladoras would be considered a "permanent establishment" (PE) in the country for income tax purposes. This presented a much higher tax burden, especially for maquiladoras with headquarters in the United States, since U.S. tax laws allow only partial credit on U.S. taxes for any taxes paid by maquiladoras in Mexico. Because a majority of maquiladora companies are headquartered in the United States, this situation posed a case of double taxation for a sizable portion of industry participants.⁵ Given that this would have rendered many companies uncompetitive, the controversial PE measures were ultimately halted. Instead, the United States and Mexico reached an intergovernmental agreement in August 1999 that essentially kept the existing transfer pricing scheme as the operable fiscal regime for maquiladoras.

On the binational accord, an official communiqué by Mexico's Finance Ministry states: "The core of the agreement is not to increase taxes paid by maquiladoras but to distribute them in a more equitable way between the two countries. As long as a maquiladora complies with the transfer pricing rules established in the agreement, it is not considered as a permanent establishment and therefore is not taxed as such."⁶ Originally, the agreement was to cover the period 2000–02 but was later amended to extend through 2004. During the five-year period that this binational agreement will be in place, the Organization for Economic Cooperation and Development, of which both the United States and Mexico are members, will be developing the international tax rules that will apply to income generated by multi-

national manufacturing companies. These rules, as set forth by international rather than U.S. or Mexican guidelines, will be adopted by Mexico in taxing maquiladora companies.⁷

Maquiladoras have argued that, though they are not opposed to paying their fair share of taxes in Mexico, the lack of clear and predictable "rules of the game" regarding their fiscal treatment is damaging their investment plans for the country. For example, some of the more capital-intensive companies report that a tax-planning horizon of more than five years is required to assess the cost-effectiveness of locating expensive, high-tech equipment in Mexico. The current scenario puts at risk this type of very desirable investment for the country.

In sum, the binational accord did set aside the immediate imposition of PE measures for maquiladoras, but after the fifth year maquiladoras will have to reassess their tax situation in the country. Thus, maquiladoras emphasize that they would prefer a more predictable and permanent solution to their tax treatment now for long-term planning of their investments in Mexico.⁸

MEXICO–EUROPEAN UNION FREE TRADE AGREEMENT

On July 1 of this year, a free trade agreement (FTA) went into effect between Mexico and the 15 member countries of the EU. With this treaty, Mexico absorbed 15 economies at once into its aggressive strategy of opening markets for itself worldwide. Indeed, Mexico now has 10 FTAs with 31 countries around the world and is actively pursuing more.⁹ In fact, one of Mexico's most recent FTAs was signed with the European Free Trade

Table 4
Mexico's Manufactured Goods Exports
(1998, millions of U.S. dollars)

	To the United States		To the European Union	
	Exports	Rank*	Exports	Rank*
Manufactures	83,766.7	3	3,150.4	32
Principal sectors:				
Textiles and apparel	7,885.7	1	99.1	58
Electric and electronics	32,284.7	2	882.3	21
Transportation equipment and auto parts	20,312.9	3	692.1	18
Steel	2,271.9	3	125.9	29
Agroindustrial	1,554.9	3	128.6	30
Plastics	715.0	5	31.3	25

* Reflects rank among world suppliers.

NOTE: Export volume was determined based on U.S. and European Union imports from Mexico.

SOURCES: SECOFI with data from EUROSTAT and U.S. Department of Commerce.

Association (EFTA), which includes Switzerland, Liechtenstein, Norway and Iceland. With this particular FTA, which takes effect in July 2001, Mexico will have secured free-market access to all of Western Europe.

The Mexico–EU FTA has important implications for Mexico in general and for the maquiladora industry in particular. When the agreement took effect, 82 percent of Mexico’s industrial products, including manufactures, gained duty-free access into the EU, and the remaining 18 percent will be duty-free by 2003.¹⁰ Considering that the largest component of Mexico’s total exports is manufactured goods (nearly 87 percent) and that maquiladoras generate the majority of these (54 percent), it is clear that Mexico’s open-market access to the EU holds great potential for maquiladora products.

To measure this potential, Mexico’s Trade Ministry (SECOFI) compared how the country ranks in supplying manufactured goods to the United States versus the EU (*Table 4*). This comparison permits an assessment of Mexico’s likely success in expanding into a market equally as demanding as that of the United States. As *Table 4* shows, Mexico is the third-largest world supplier of manufactured goods for the United States, yet it ranks in 32nd place for the EU. Moreover, when manufactures are disaggregated by sector, three of the sectors that are major U.S. suppliers happen to be the top three maquiladora sectors. In the electric and electronics sector, Mexico’s exports to the United States represent the second-largest source for these goods; their rank in supplying the EU is 21st. In the transportation equipment and auto parts sector, Mexico’s exports rank third in the United States compared with 18th in the EU. In the textiles and apparel sector, Mexico ranks first in the United States but 58th in the EU.

Given this contrasting picture, it can be concluded that if Mexico’s manufactures—especially those under the maquiladora industry’s principal sectors—are competitive enough to hold a high rank in supplying the United States, they can likely compete in servicing the EU market. Conceivably, Mexico can carve a larger niche for its manufactures in the EU market, especially now with a free trade agreement in place between the two regions.

The market potential the agreement represents is sure to draw investors worldwide into Mexico, and some of them may choose to invest via the maquiladora industry. Moreover, existing maquiladora investors may find it desirable to expand operations in Mexico to tap into an open EU market as well as the markets on Mexico’s growing list of FTAs. Finally, an interesting

dynamic that may develop from the Mexico–European Union FTA is that, given that the treaty’s conditions will ease European investment in Mexico, European companies may set up shop in Mexico solely to take advantage of the lucrative North American market—specifically, the U.S. market—which, through NAFTA, Mexico can deliver to them.¹¹

CONCLUSION

The maquiladora industry in 2000 continued to grow at robust rates despite uncertainties in its economic environment, such as the prospect of a new, more burdensome fiscal regime. A key source of the maquiladoras’ strength is a healthy economy in the United States—the predominant market they serve. In addition, Mexico’s numerous free trade agreements have opened new markets around the world for maquiladoras. Finally, the growing strategic importance of maquiladoras in world manufacturing is keeping them not only viable but dynamic.

—Lucinda Vargas

NOTES

- ¹ The next issue of *Business Frontier* will complete the three-part series “NAFTA’s First Five Years,” which started with Issue 2 of 1999 and continued with Issue 1 of 2000.
- ² Mexico’s top foreign-exchange generators are maquiladoras, oil, worker remittances from abroad and tourism. The foreign exchange generated by each of these sectors during January–June 2000 is as follows: maquiladoras, \$8.1 billion; oil, \$7 billion; remittances, \$2.9 billion; tourism, \$1.7 billion.
- ³ Electronics companies such as Hewlett-Packard, IBM, Motorola, AVX, Flextronics and NEC have an important presence in Jalisco. Also, numerous Mexican firms in this state engage in contract work for electronics companies all over the world.
- ⁴ According to Roberto Coronado, external consultant to the accounting firm Deloitte & Touche in Ciudad Juárez, Chihuahua, rules established by the Organization for Economic Cooperation and Development stipulate that a safe harbor option can be made available in a country for only five years. This is to provide an interim period to allow a country to absorb the APA as a permanent mechanism. In the case of Mexico, however, the safe harbor option is completing its sixth year in 2000 and apparently will continue to be available to maquiladoras in place of an APA. Moreover, maquiladoras have reported problems in using an APA instead of the safe harbor option. Many times fiscal authorities have amended the APAs submitted by maquiladoras, raising the amount of taxes due.
- ⁵ The largest foreign investor in the maquiladora program is the United States. Moreover, third-country investors such as Thomson of France, Philips of the Netherlands, and Sony of Japan may still operate their maquiladoras in Mexico from a U.S.-headquartered office. Thus, U.S. tax laws would also apply to this group of companies, even if the tax laws in their country of origin would allow a full foreign tax credit on taxes paid by maquiladoras in Mexico.

⁶ "The Maquiladora Industry," *Mexico's Bimonthly News*, Ministry of Finance and Public Credit of Mexico, October 20, 2000, No. 21.

⁷ Ibid.

⁸ Industry participants expect the new Fox administration to revisit the fiscal treatment of maquiladoras to come up with a more predictable and permanent set of rules. One thing is clear, however: maquiladoras have already become important taxpayers in Mexico, and authorities will be looking to them to pay what is deemed their fair share of taxes.

⁹ Mexico's 10 FTAs are as follows: Chile (1992); NAFTA: United States and Canada (1994); Bolivia (1994); G-3: Colombia and Venezuela (1995); Costa Rica (1995); Nicaragua (1998); Northern Triangle: Guatemala, Honduras, El Salvador (2000); European Union: United Kingdom, France, Germany, Italy, Ireland, Denmark, Holland, Austria, Sweden, Finland, Belgium, Luxembourg, Greece, Spain and Portugal (2000); Israel (2000); and EFTA: Switzerland, Liechtenstein, Norway and Iceland (2000). An example of a free trade agreement that Mexico is currently pursuing is the treaty under negotiation with Singapore.

¹⁰ Source: Mexico's Trade Ministry (SECOFI), www.secofi-snci.gob.mx.

¹¹ For any trade agreement, rules of origin will still apply in determining whether a particular good qualifies as having originated within the free trade area or from outside the region in order to be granted duty-free treatment. Typically, if the majority of a product's content originates from within the trade area, it then qualifies as a regional product for purposes of duty-free access within the free trade area.

Business Frontier is published by the El Paso Branch of the Federal Reserve Bank of Dallas. The views expressed are those of the author and do not necessarily reflect the positions of the Federal Reserve Bank of Dallas or the Federal Reserve System.

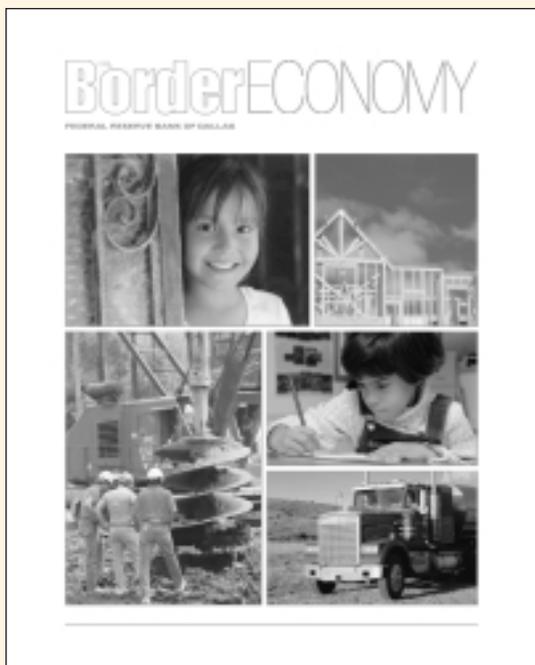
Subscriptions are available free of charge. Please direct requests for subscriptions, back issues and address changes to the Public Affairs Department, El Paso Branch, Federal Reserve Bank of Dallas, 301 E. Main Dr., El Paso, TX 79901-1326; call 915-521-8235; fax 915-521-8228; or subscribe via the Internet at www.dallasfed.org.

Articles may be reprinted on the condition that the source is credited and a copy of the publication containing the reprinted material is provided to the Research Department, El Paso Branch, Federal Reserve Bank of Dallas.

Business Frontier is available on the Bank's web site at www.dallasfed.org.

Editor: Lucinda Vargas, Senior Economist
Publications Director: Kay Champagne
Copy Editor: Jennifer Afflerbach
Design: Gene Autry
Layout & Production: Laura J. Bell

Coming Soon! THE BorderECONOMY



The Dallas Fed's Research Department will publish this review of Texas–Mexico border economic issues early next year. Areas to be covered include:

- income
- trade
- housing
- infrastructure
- immigration
- maquiladoras

If you would like to receive an e-mail notification when *The Border Economy* is published, join our free e-mail subscription service. It's easy to subscribe. Just access the Dallas Fed web site at www.dallasfed.org. You can sign up from the front page.

FEDERAL RESERVE BANK OF DALLAS