Have Mexico's Maquiladoras Bottomed Out?

One of Mexico's most talked-about economic events this decade has been the downturn in maquiladora, or in-bond export, plants. These plants account for close to half of all Mexican exports to the United States, so it's no wonder they receive so much attention.

Between October 2000 and March 2002, maquiladora employment fell by nearly 277,000, or about 21 percent. Employment recovered through spring of 2003, then fizzled again. The usual causes of maquiladora fluctuations (U.S. demand and Mexican cost factors) have begun to move in directions that induce growth. Are these changes enough to spur a recovery? Maquiladora employment has begun to edge up, but pressures in both directions complicate the answer.

To understand more than simple generalities about maquiladoras today, two factors deserve attention. First, maquiladoras and their counterparts in other countries are chronically volatile. Maquiladora employment and output fluctuations—both down and up—are greater than in same-industry plants in high-income industrialized countries. Second, while the latest downturn has been spread broadly across maquiladora industries, some have fallen harder than others. Some industries have recovered a little and appear ready to move back up. Others look poised for further decline.

Employment Volatility

Between September 1998 and October 2003, overall maquiladora employment in Mexico rose more than it fell. As seen in Chart 1, employment peaks in October 2000 and then falls hard and fast. Newspapers make much of this drop, but they scarcely ever discuss the upward move over the preceding two years. Maquiladora employment rose more between September 1998 and September 2000 than it fell in the following three years. Despite the sharp decline since October 2000, maquiladora employment has never fallen back to September 1998 levels.

Maquiladoras act as shock absorbers for manufacturing operations in industrial countries. In any country, certain industries have long-term upward or downward trends. But in the short run, firms in high-income countries use foreign export-processing zone plants such as maquiladoras to take the brunt of shocks to home demand. A given increase or decline in U.S. industrial production triggers much larger increases or declines in maquiladora employment in the corresponding industries in Mexico. After suffering a decline starting in 2000, U.S. industrial production began to recover late in 2001, offering reasons for hope.

Shock absorbing is not the only factor in maquiladora employment fluctuations. Recent changes in the dollar cost of doing business in Mexico may explain not only some recent problems of the maquiladoras, but also their recent upturn. Between October 1998 and March 2002, the inflation-adjusted value of the dollar weakened against the Mexican peso by 28 percent. At the same time, the dollar strengthened against the currencies of Malaysia, Singapore, Sri Lanka, Thailand and the Philippines. These changes in the real exchange rate lowered the dollar cost of buying products in the five Asian countries, while raising it in Mexico. In Mexico, average manufacturing wages in dollar terms rose 45 percent between 1998 and 2002 but fell in Singapore and Sri Lanka. Since March 2002, however, the real value of the dollar has strengthened 17 percent against the peso, lowering the cost of doing business in Mexico. Meanwhile, the dollar has appreciated only slightly against the currencies of China, Malaysia and the Philippines and declined against those of Sri Lanka, Singapore and Thailand.

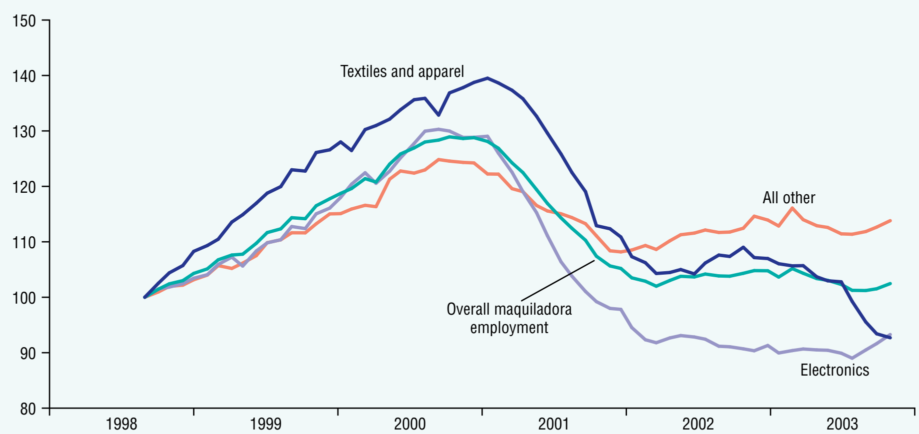
Sectoral Differences

More than 80 percent of the Mexican maquiladora employment declines in 2001 and 2002 can be explained by changes in U.S. aggregate demand and increases

Chart 1

Maquiladora Employment Indexes

Index, September 1998 = 100



SOURCE: Instituto Nacional de Estadística, Geografía e Informática.

in the cost of doing business in Mexico. Eighty percent, however, is not 100 percent. Clearly, more is required to explain maquiladora fluctuations than U.S. industrial production, the real exchange rate and wage rate fluctuations.

Chart 1 also presents indices of maquiladora employment for textiles and apparel, for electronics and for everything else (*all other*). Employment in both electronics and textiles and apparel maquiladoras grew faster than the *all other* group, but it also fell harder after reaching its peaks. By October 2003, employment in both industries was markedly below September 1998 levels. Although October 2003 employment in all other industries was also well below its peak, it was well above September 1998—farther above it, in fact, than employment in textiles and apparel and electronics was below it. Moreover, total maquiladora employment seems to have bottomed out. The relevant question here is whether the recovery of *all other* and perhaps electronics will offset the continued falloff in textiles and apparel.

Much of what made the two industries sink farther than *all other* reflects government policy. For textiles and apparel, the big policy change came in January 1994, when the North American Free Trade Agreement gave this industry a new set of rules for trade with the United States and Canada. Before NAFTA, China was the United States' principal source of textiles and apparel products. The special tariff breaks textiles and apparel received under NAFTA pushed Mexico past China to become the United States' No. 1 supplier. But in 2000, the United States gave some of the same trade openings to Caribbean Basin Initiative countries (which include the nations of Central America). In 2001, the United States extended other openings to China when it joined the World Trade Organization. Both China and the Caribbean Basin Initiative countries overtook Mexico in textile and apparel exports to the United States. Mexico seems unlikely to be able to compete again in the lowest wage, low-skill labor markets that much of this industry occupies.

The story of the electronics maquiladora employment fluctuations is more convoluted. The U.S. recession of 2000–01 began with a downturn in U.S. electronics-related industries associated with a worldwide slump in these industries. The relation between the downturn in U.S. industries and their Mexican counterparts is clear. Compounding the industry downturn, changes in real exchange rates and dollar-denominated manufacturing wages in Mexico during October 2000 through March 2002 were affecting the cost of doing business.

In 2001, a new NAFTA rule went into effect that made maquiladora operations more difficult, costly and uncertain in Mexico. NAFTA Article 303 outlawed tariff rebates for imports from non-NAFTA countries. For firms that imported from Asia for assembly in Mexico and subsequent export to the United States—a long-time practice of special importance to the electronics maquiladoras—Article 303 made Mexican operations more expensive overnight. Firms began to take their operations elsewhere.

The Mexican government attempted to counteract these tariff cost increases with subsidies administered through a program known as Prosec. Some maquiladora managers, complaining that Prosec's policies were mercurial and ad hoc, relocated their operations in spite of the program. Also, because electronics maquiladoras are especially sensitive to exchange rate fluctuations, the real exchange rate appreciation of 1998–2002 may have affected these plants more than others. Finally, the development of input supply chains in electronics made China a stronger competitor.

Outlook for Maquiladoras

While most of Mexico's maquiladora downturn in 2001 and 2002 can be explained by reductions in U.S. demand and cost-of-doing-business changes expressed through wage and exchange rate fluctuations, a significant share of the downturn is due to changes in trade policy and increased competition abroad in terms of supply networks and input costs. As the U.S. recovery continues apace in the wake of its 2000–01 recession, so should the resuscitation of Mexico's maquilas. The recent softening of the Mexican peso has not done much so far to make maquiladoras come back, but it helped to stanch their decline, and its more positive effects may still be ahead.

Policy changes raise questions as to when or whether the maquiladoras will soon regain their peak levels of employment or output, but it is hard not to think that Mexico's maquiladoras have already bottomed out, even with further declines in Mexico's garment industry.

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