

NAFTA, Foreign Direct Investment, and Sustainable Industrial Development in Mexico

By Lyuba Zarsky and Kevin P. Gallagher | January 28, 2004

The 1994 North American Free Trade Agreement (NAFTA) capped Mexico's ten-year transformation from one of the most closed to one of the most open economies in the world. The hope was that economic integration would stimulate large inflows of foreign direct investment (FDI) in manufacturing, especially by North American corporations looking for a low-wage export platform. By expanding exports, FDI would alleviate Mexico's debt overhang, create high-productivity manufacturing jobs, and fuel economic growth.

FDI was also expected to cure environmental and social problems. New manufacturing jobs would absorb the urban poor and farmers displaced by NAFTA, allowing Mexico, in the words of President Carlos Salinas to "export goods, not people." Moreover, transnational corporations (TNCs) would transfer "clean technology" and state-of-the-art environmental management systems, reducing the pollution and health risks associated with rapid industrial growth, especially in developing countries with poor regulatory systems.

Ten years after the passage of NAFTA, it is clear that the operation was successful—FDI inflows and exports boomed. Beyond its poor performance in terms of economic growth, jobs and industrial pollution, the neoliberal integration strategy has undermined, rather than nurtured, Mexico's endogenous productive capacities. In terms of Mexico's long-term prospects for sustainable industrial development, the patient is not well.

Beneath the Gloss

On the surface, the strategy was, at least until recently, a dazzling success. Between 1994 and 2002, FDI inflows into Mexico ballooned to a yearly average of \$13 billion, nearly three times more than the yearly average of \$4.5 billion between 1988 and 1993. Indeed, Mexico ranks among the top three developing country recipients of global FDI. Moreover, as hoped, about half of the FDI flowed into manufacturing. Exports increased by nearly 50% after the passage of NAFTA in 1994 and manufactures accounted for nearly 90% of total exports. In the face of the failure of many developing countries to attract FDI—despite the embrace of integration policies—Mexico became a poster child for neoliberal globalization.

There was, however, an Achilles Heel.

Although exports grew fast, imports grew faster, generating a persistent and growing current account deficit. The problem was that, rather than buy inputs locally, TNCs relied heavily on foreign suppliers. In 2002, locally sourced inputs in export-oriented *maquila* manufacturing plants accounted for less than 4% of total value added.

Mexico became extremely dependent not only on imports but also on external sources of capital, making it highly vulnerable

Key Points

- *The transformation of the Mexican economy, capped by signing of the NAFTA in 1994, successfully increased Mexican exports and inflows of foreign direct investment into Mexico.*
- *Economic liberalization failed to spark economic growth, create jobs, stem migration, or protect the environment.*
- *Because Mexico is not building capacities for internal innovation and production, the long-term prospects for sustainable industrial development in Mexico are grim.*

to changes in the global economy. When recession hit the U.S. in 2001, FDI inflows contracted sharply. In addition, a stampede of TNCs relocated to China after it acceded to the WTO, raising concerns about the viability of basing an industrial growth strategy on low wages. While low compared to the U.S. and Canada, wages in Mexican manufacturing are on average four times greater than in China.

Mexico's economic integration strategy cannot be evaluated solely on data about FDI and exports. Any such evaluation badly confuses means and ends. The central goal of a development strategy is—or should be—the improvement of current living standards while also improving the prospects for broad and sustainable development in the future.



Table 1

BUT THE PATIENT IS NOT WELL		
	1988-93	1994-2002
Growth in GDP (%)	3.4	2.9
Current Account Balance (\$US billion)	-13.06	-13.51
Locally sourced inputs in Maquilas (%)	4.7	3.7
Domestic Investment/GDP (%)	17.2	16.5

Beneath the gloss of increased foreign investment and exports, the evidence is troubling.

The most telling indicator is GDP growth. Between 1994 and 2002, GDP in Mexico grew at an average rate of only 2.7% per year—less than half the 6.7% average growth rate under the import-substitution policies of the 1970s. Even in the financially tumultuous 1980s, GDP grew an average of 3.7% per year.

What accounts for such a poor performance? While economists point to a variety of factors, the most important is the contraction of domestic investment. Between 1994 and 2002, total annual investment as a percent of GDP averaged a little over 19%—the same as in the 1980s. However, the share of FDI in total investment more than doubled, while the share of domestic investment fell by a half. The manufacturing sector was especially hard hit by this trend.

The primary cause of the contraction in domestic investment was lack of access to credit, especially for small- and medium-sized companies. Government monetary, fiscal, and labor policies prioritized the control of inflation, primarily to attract foreign investors. The result was an overvalued exchange rate and high interest rates, which averaged 22% between 1994 and 2002.

Moreover, the domestic Mexican banking system has been largely dysfunctional. Financial policies generally have worked to channel public funds toward the rescue of bankrupt, indebted conglomerates, creating absolute shortages of credit for domestic private firms. While domestic firms faced a credit crunch, TNCs and globally integrated Mexican firms had ample access to cheaper, foreign sources of capital, enabling their expansion.

Another aspect of the poor investment climate has been declining domestic demand for domestically produced manufactures. One anti-inflationary government policy was the creation of “economic solidarity pacts” with powerful unions to constrain wage growth. Real wages in Mexican manufacturing outside of the export-oriented *maquiladoras* plummeted by 12% between 1994 and 2002. Declining wages translate into shrinking incomes and falling demand for consumer goods.

Buffeted by high interest rates, cheap imports, and a drop in consumer demand, smaller companies—which account for almost half of manufacturing employment—were the worst hit. Between 1988 and 1998, small firms grew by just over 1% and medium-sized firms by 2.8%. Large firms, on the other hand, grew by over 4%.

Overall, the FDI-led integration strategy engendered a process of economic polarization and segmentation between the externally and internally oriented parts of the Mexican economy. A relatively small number of TNCs and globally integrated Mexican firms with access to foreign capital have expanded production, while firms reliant on the domestic banking system and serving domestic markets have been starved for capital and for customers.

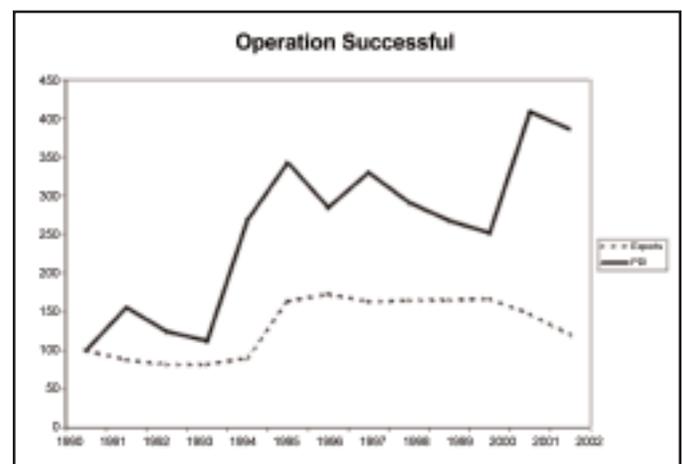
Jobs and Migration

There were high expectations for NAFTA in terms of job creation. The actual performance was, at best, disappointing. Between 1994 and 2002, about 630,000 jobs were created in the manufacturing sector—just under 83,000 per year. However, due in part to a demographic bulge and in part to the displacement of farmers by NAFTA's agricultural liberalization, about 730,000 new jobseekers entered the work force each year. The manufacturing sector, in short, provided jobs for less than 12% of the people newly seeking employment.

Nearly 96% of new manufacturing jobs were in export-oriented firms. But the export sector accounts for less than 6% of total employment in Mexico. Job growth in the much larger domestic manufacturing sector was virtually stagnant. Moreover, jobs in the export sector are vulnerable to global recession and competition from Asia. High tech jobs in Guadalajara, for example, are today half what they were in 2001.

Most of Mexico's new jobs since 1994 are in the informal sector and are generally of poor quality—55% do not provide benefits. Moreover, the average minimum wage fell by more than 7% and by 13% in manufacturing since 1994.

The failure of the manufacturing sector to be an engine for job growth means that the FDI-led strategy did little to reduce Mexico's large income and assets gap between rich and poor. In 2002, the richest 20% of Mexicans continued to marshal more than 50% of total income—slightly more than in 1984—while the poorest 20% continued to receive less than 4%, much the same as in 1984.



The search for—and lack of—employment act as “push” and “pull” factors that contribute to migration in Mexico. In total, some 6.5 million Mexicans entered the work force between 1994 and 2002. Only 4.4 million new jobs were created, leaving over two million people without employment. Many migrated to cities where there are manufacturing enclaves. Others sought work across the border. In the 1990s, approximately 380,000 Mexicans migrated to the U.S. each year—compared to less than 200,000 per year in the 1980s.

Environmental Performance of Industry

Many environmental trends are worsening in Mexico. Between 1985 and 1999, the estimated economic costs of environmental degradation—including rural soil erosion, municipal solid waste and urban air pollution—amounted to 10% of annual GDP.

Mexico’s environmental problems cannot be laid solely at the feet of industry. However, predicted improvements from FDI-led growth have been elusive. Recent studies conclude that, since the 1980s, overall levels of industrial pollution, particularly air pollution, water pollution, and toxics, have increased faster than population growth and faster than the GDP of the economy as a whole. Moreover, the failure to create manufacturing jobs has not alleviated the pressure on rural areas or increased municipal revenues that could be channeled to environmental infrastructure.

Some environmental bright spots, however, are associated with foreign investment. As a result of new technology, Mexican steel production is generally cleaner and more efficient than in the US. In terms of on-site pollution, *maquila* assembly plants generally tend to be cleaner than domestic Mexican firms. However, *maquila* growth attracts a high rate of migrants, far exceeding the infrastructure capacity of host communities. The result is inadequate management of sewage and waste, insufficient supplies of water, and negative consequences for air quality.

Although industrial pollution is growing, there is little evidence that NAFTA turned Mexico into a “pollution haven.” Between 1988 and 1998, the share of “dirty industry” in total manufacturing production fell in both Mexico and in the United States. Employment in dirty industries in the U.S. remained about the same and declined by 2% in Mexico.

Dirty industries, in short, did not massively relocate. It is certainly true, though, that Mexico offered a generally laxer climate of environmental regulation for all industries than many U.S. states. In some cases, environmental standards were lower or non-existent. In other cases, however, Mexican standards were—and are—relatively high, the result of significant evolution of environmental awareness during the 1990s. The problem is the lack of enforcement. Although foreign firms may not have been drawn to Mexico because of lower environmental

Key Problems

- *Investment by TNCs failed to generate technology and productivity spillovers to Mexican companies.*
- *Rather than locally produced inputs and domestic financing, export-oriented firms rely on imports and foreign credit.*
- *Trade and foreign investment-led growth are driving a wedge between the outward and inward oriented parts of the Mexican economy, exacerbating poverty and inequality.*

standards, they had the opportunity to perform poorly once they get there. There is evidence that some did.

What are the determinants of regulatory compliance in Mexico? Two World Bank studies concluded that the key determinants of environmental compliance by domestic and foreign firms are: 1) government pressure, including inspections; 2) local community pressure; and 3) whether or not the firm has an environmental management system. Interestingly, one of the studies found no correlation between compliance and foreign origin. Foreign firms, in other words, were no more likely to comply with regulation than domestic firms.

Mexico’s commitment to regulatory pressure appears to be falling by the wayside. Although spending on environmental protection grew impressively between 1988 and 1993, it fell by nearly half between 1994 and 1999. Indeed, Mexico spends less on environmental protection than any other country in the Organization on Economic Development and Cooperation (OECD).

Environmental inspections mirror the trend in environmental spending. Although inspections got off to an impressive start in 1992, only 6% of establishments were inspected at the highest point. Total inspections plummeted by 45% after 1993, and inspections in the *maquila* sector decreased by 37%.

Mexican Productive Capacity

The poor performance of FDI-led growth after NAFTA could be forgiven in the short term if seeds were sown to improve Mexico’s long-term prospects for sustainable industrial development. The evidence suggests, however, that this was not the case.

The fundamental economic indicator to determine if a process of sustainable industrial development is underway is an increase in endogenous productive capacity—namely, the ensemble of knowledge, skills and technology by which domestic firms and workers are able to design, produce, and sell products and services in domestic and/or global markets. In addition to know-how, that is, the ability to imitate, sustainable productive capacity must include the capability to innovate.

Capacities for innovation are crucial to all aspects of sustainability—economic, social, and environmental. Through innovation, industrial products can be both more eco-friendly and suited to the needs not only of global but also of local markets, including poorer consumers.

Key Solutions

- *Mexico should tackle its economic, environmental, and social objectives head on by increasing internal capacities for production and innovation.*
- *Regional and subregional trade agreements should be regarded as instruments for development rather than end objectives measured through trade and investment flows.*
- *Investment rules in trade agreements should provide Mexico and other developing countries with the policy space needed to harness both domestic and foreign investment for sustainable development.*

A central “promise” of FDI is that it increases productive capacities by delivering “efficiency spillovers”—increases in technology, skills, and knowledge—to local firms and workers. Indeed, economists increasingly view improvements in technology, efficiency, and productivity—rather than capital accumulation—as the primary conduit by which FDI stimulates economic growth.

Most studies since NAFTA have found little evidence of efficiency spillovers from FDI in Mexico. The reason stems in large part from the fact that, apart from the auto industry, there were few backward linkages. Supply chains are a central way to gain technology and knowledge. But Mexican suppliers remain largely out of the subcontracting loop. In the high-tech sector, for example, local firms supplied less than 5% of productive inputs. By contrast, local firms supply over 80% of the inputs to firms that produce for domestic markets.

The second problem was the failure by both the public and private sectors to invest in knowledge. Especially for firms in countries like Mexico, investment in knowledge is the “make it or break it” variable that determines whether firms can compete in mature industries, which earn thin and declining margins. Between 1994 and 2002, spending on research and development (R&D) amounted to only 0.40% of GDP. In manufacturing, it was even lower—0.22%. In South Korea, which spent less than Mexico on R&D in the 1980s, R&D spending is now 2.6% of GDP, ten times greater than Mexico.

Other snapshots comparing Mexico and South Korea are telling. In 1981, Mexico seemed to be better poised to be an industry innovator: 648 scientific journal articles were published in Mexico, compared with only 168 in South Korea. By the late 1990s, the tables were turned. In Mexico, there were 225 scientists and engineers per million people, compared with 2152 in South Korea, and R&D technicians per million people averaged 172 in Mexico compared with 576 in South Korea.

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Beyond NAFTA

Mexico’s experience with NAFTA to date offers two important lessons.

The first lesson is that the neoliberal model of economic integration and liberalization is no panacea for economic development. Even if it succeeds in attracting FDI and expanding exports—which is not a given—the model can fail to stimulate domestic growth and employment.

Mexico faces significant structural and institutional obstacles to development, sustainable or otherwise, which cannot be hurdled by an influx of foreign capital. Instead of looking for FDI to be a miracle drug, Mexico should tackle its economic, environmental and social objectives head-on. A good start would be to make sustainable industrial development, rather than FDI inflows and exports, the centerpiece of its development strategy. With such an approach Mexico could leverage its connection to global markets to foster internal capacities for production and innovation, especially by concentrating on improving the overall climate for domestic production and investment—the key to sustained growth.

The second lesson is the investment rules in trade agreements need to provide developing countries with the policy space to harness FDI for development. NAFTA did just the opposite by allowing foreign investors to sue the Mexican government for the establishment of social and environmental legislation and by outlawing many of the performance requirements that developed and developing countries alike have historically used to make FDI benefit national development.

Current proposals for an FTAA and the proliferating number of sub-regional trade negotiations across the hemisphere ignore each of these lessons—one of the many reasons why most of these negotiations are proving to be mired in gridlock. Until such agreements are seen as being tools for development, gridlock will be here to stay.

The authors are researchers at the Global Development and Environment Institute, Tufts University. Zarsky and Gallagher are also analysts associated with the IRC’s Americas Program (online at www.americaspolicy.org). This policy brief condenses their report, Sustainable Industrial Development? The Performance of Mexico’s FDI-Led Integration Strategy, available online at <http://www.ase.tufts.edu/gdae/>. See report for reference notes.