BRIEF SUBMITTED TO THE CANADIAN STANDING SENATE COMMITTEE ON FOREIGN AFFAIRS

MEXICAN EMPLOYMENT, PRODUCTIVITY AND INCOME A DECADE AFTER NAFTA

BY
SANDRA POLASKI,
DIRECTOR, TRADE, EQUITY AND DEVELOPMENT PROJECT
CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE
1779 MASSACHUSETTS AVENUE, NW
WASHINGTON DC 20036

202-939-2252
202-483-1840
SPOLASKI@CEIP.ORG

FEBRUARY 25, 2004

Main Findings

- NAFTA has produced a disappointingly small net gain in jobs in Mexico. Data limitations preclude an exact tally, but it is clear that jobs created in export manufacturing have barely kept pace with jobs lost in agriculture due to imports. There has also been a decline in domestic manufacturing employment, related in part to import competition and perhaps also to the substitution of foreign inputs in assembly operations. About 30 percent of the jobs that were created in the maquiladora assembly plants in the 1990s have since disappeared. Many of these operations were relocated to lower- wage countries, particularly China.

- Mexican agriculture has been a net loser in trade with the United States, and employment in the sector has declined sharply. U.S. exports of subsidized crops such as corn have depressed agricultural prices in Mexico. The rural poor have borne the brunt of adjustment to NAFTA and have been forced to adapt without adequate government support.

- Productivity has increased in Mexico over the last decade. NAFTA likely played a significant role, because Mexico cut tariffs deeply and was exposed to competition from its giant neighbors. The desirable growth in productivity may have had the unwanted side effect of reducing the rate of job growth, since fewer new jobs were created as workers already on payrolls produced more.

- Real wages for most Mexicans today are lower than when NAFTA took effect. The stunning setback in wages is mainly attributable to the peso crisis of 1994-1995. However, during the NAFTA period, productivity growth has not translated into wage growth, as it did in earlier periods in Mexico. Mexican wages are also diverging from, rather than converging with, U.S. and Canadian wages.

- Income inequality has been on the rise in Mexico since NAFTA took effect, reversing a brief declining trend in the early 1990s. Compared to the period before NAFTA, the top 10 percent of households have increased their share of national income, while the other 90 percent have lost income share or seen no change. Regional inequality within Mexico has also increased, reversing a long-term trend toward convergence in regional incomes.

- The experience of Mexico confirms the prediction of trade theory, that there will be winners and losers from trade. The losers may be as numerous as, or even more numerous than, the winners, especially in the short-to-medium term. In Mexico, farmers are still struggling to adapt to NAFTA-induced changes.

- The short-to-medium–term adjustment costs faced by the losers from trade can be severe, and in Mexico the losers are often those segments of society least able to cope with adjustment, due to insufficient skills, meager savings, and limited mobility. It must also be recognized that there may be permanent losers from trade, due to these limitations.

Employment

Mexico has an abundance of labor. Very high population growth rates through the mid-1970s translated into a demographic bulge in the workforce through the late 1990s, as people born during the earlier high-growth years matured and began looking for work. In addition, during the 1980s and 1990s women joined the workforce at increasing rates, in part because of the decline in the reproductive rate, but also out of the need to support household incomes during recurrent economic crises. Overall, the Mexican labor force grew from 32.3 million immediately before NAFTA to 40.2 million in 2002, meaning that Mexico needed almost a million jobs a year simply to absorb the growth in labor supply.[1]

Economic theory suggests that opening to trade will increase the demand for labor in a labor-abundant country and therefore will increase the number of jobs, the wages paid, or both. Clearly, that would be a desirable effect for a country with a large and growing workforce such as Mexico. However, in practice, the effect of a trade pact like NAFTA depends on many factors, including which tariffs were reduced or eliminated by each country, at what pace, and in what sequence. The following discussion focuses on tariff changes between Mexico and the United States, because trade between Mexico and Canada is a very small part of Mexico's total trade.[2]

Under NAFTA, the United States cut tariffs on most Mexican manufactured goods, with the largest cuts on textiles and apparel, followed by more modest but still significant reductions on footwear, chemicals, miscellaneous manufactures, and transportation equipment. The United States also cut agricultural tariffs and increased quotas, although one of Mexico's main agricultural products, sugar, continues to be restricted through tariffs and quotas. Other Mexican crops face seasonal restrictions that are scheduled to end by 2008. Meanwhile, Mexico cut tariffs dramatically on both agricultural and livestock products and virtually all manufactured goods from the United States. Some tariffs will be maintained on sensitive agricultural products such as maize and beans until 2008, but in practice the Mexican government has already allowed substantial above-quota tariff-free imports of corn.

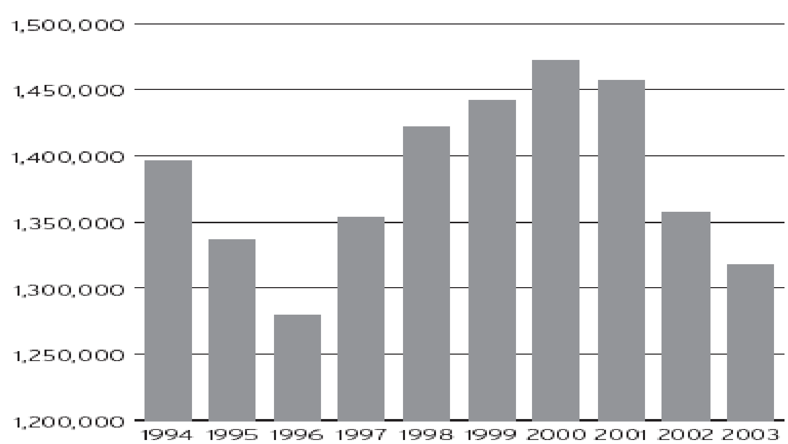
The pattern of trade between the two countries changed in a number of ways as a result of these cuts. From Mexico's standpoint, the cumulative changes resulted in a shift from a net trade deficit with the United States before NAFTA to a substantial net trade surplus in 2002. The overall net surplus masks a growing deficit in agricultural trade with the United States that is more than offset by a surplus in manufactured exports from Mexico. Trade in services shows a small deficit for Mexico.

Manufacturing Employment

Translating these changes in trade patterns into employment impacts is not easy, but approximate numbers of jobs can be determined with reasonable certainty. With respect to manufacturing, the task is complicated by data availability. The Mexican government tracks manufacturing employment through two separate data series. One survey covers medium-size and large manufacturing establishments that account for about 80 percent of industrial production, but excludes the maquiladora sector.[3] A separate survey covers maquiladoras, which are export assembly plants.

Overall employment in non-maquiladora manufacturing in Mexico was lower in 2003 than in 1994, except in microenterprises, which are mainly in the informal sector.[4] Employment in the non-maquiladora manufacturing sector stood at about 1.4 million in January 1994, declined sharply during the peso crisis, then began a recovery that produced an additional 91,000 jobs at its peak in May 2000 before declining again over the past three years. The recent decline has been caused in significant part by the U.S. recession. As NAFTA has linked Mexico more and more closely to the U.S. economy, the U.S. business cycle has come to play a dominant role in Mexico's economic fortunes. In May 2003 there were 1.3 million jobs in non-maquiladora manufacturing, about 100,000 fewer than when NAFTA took effect (see Figure 1).

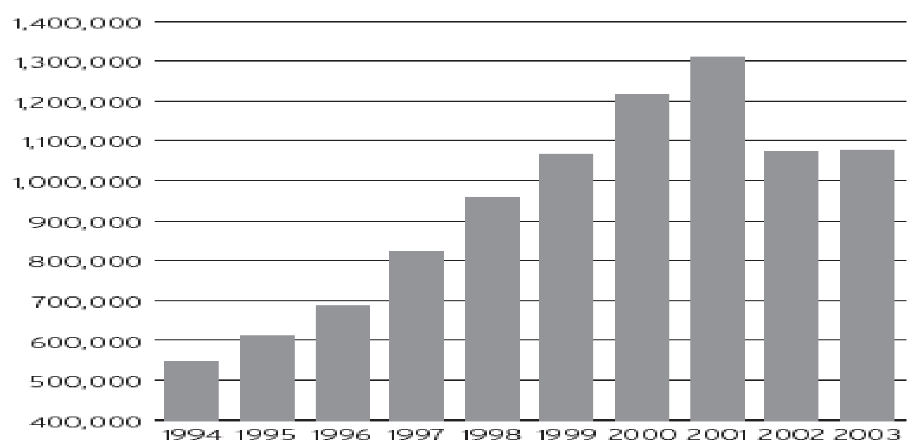
Figure 1: Non-Maquiladora Manufacturing in Mexico
Total Employment, January 1 of each year



Source: Mexican National Institute of Statistics, Geography, and Informatics (INEGI), Ministry of Employment and Social Insurance (STPS), Monthly Industrial Survey (EIM).

The maquiladora program was created by Mexico and the United States in 1965 to allow tariff-free and tax-free imports of materials and components into Mexico for assembly and re-export to the United States. It is concentrated in the auto parts, electronics, and apparel sectors. The growth in maquiladora jobs is not primarily attributable to NAFTA, since the program predates that pact, but NAFTA did provide significant tariff cuts on apparel and as a result stimulated that subsector of the maquiladoras. Maquiladora assembly plants added about 800,000 jobs between NAFTA's enactment in January 1994 and the sector's peak employment in 2000. They then shed about 250,000 jobs through May 2003. Currently, maquiladoras employ about 550,000 more workers than they did before NAFTA (see Figure 2).

Figure 2: Maquiladora Employment in Mexico
Total Employment, January 1 of each year



Source: INEGI, Monthly Indicators of the Maquila Industry.

Maquiladora plants produce almost entirely for export, so employment in that sector can be attributed largely to trade (although not exclusively to trade resulting from NAFTA). By contrast, the data on non-maquiladora manufacturing employment blend production for export with production for domestic markets; therefore, it is difficult to determine the proportion of employment attributable to exports. One study suggests that the share of non-maquiladora manufacturing employment associated with exports increased by roughly 500,000 jobs between 1994 and 1999, and then declined.[5] Of those jobs, some 450,000 were based on exports to the United States.

Only part of the growth in both maquiladora and non-maquiladora export employment can be attributed to NAFTA. The peso devaluation of 1994-1995 gave a very significant boost to all Mexican exports, as the dollar bought more than twice the value of Mexican goods after the devaluation. A study by the U.S. International Trade Commission (USITC) found that the peso devaluation of 1994-1995 had a larger impact on the growth of Mexican exports of manufactured goods to the United States than all NAFTA-related tariff changes combined.[6] If one uses the USITC's findings on the relative impact of various factors on changes in Mexican exports to the United States, NAFTA tariff cuts likely explain about one-quarter of the total growth in export manufacturing jobs (maquiladora and non-maquiladora), or the addition of about 250,000 jobs, while the peso devaluation, lower transport costs, and other factors account for the rest.[7]

The overall reality during the NAFTA years has been one of strong growth in the volume of manufactured exports but very disappointing growth in manufacturing employment. This unwelcome divergence between manufacturing output and employment growth emerged in Mexico in the mid-1980s but appears to have widened since enactment of NAFTA.[8] A number of explanations for this outcome have been advanced. One obvious explanation is productivity growth, which reduces the amount of job creation for any given level of exports. While productivity did increase in Mexican manufacturing through most of the 1990s, the gains were fairly modest, and alone cannot account for the very slow growth in manufacturing employment.

Another factor that likely explains part of the phenomenon is that export manufacturing in Mexico is increasingly based on a production model in which component parts are imported, then processed or assembled, then re-exported. In this model, the spillover effect of such operations on the broader economy is very limited, because only a narrow range of processing or assembly operations benefit the labor market. Forward and backward linkages, such as the stimulation of businesses that supply parts and materials, are not created, limiting the multiplier effect of any growth in exports. This pattern is quite clear in the maquiladora sector, in which 97 percent of components are imported and only 3 percent are produced locally in Mexico. But the non-maquiladora export sector shows similar patterns. The intra-firm production carried out by multinational firms operating in Mexico in sectors such as the auto and electronics industries depends heavily on imported inputs. It seems probable that Mexican manufacturers that previously supplied inputs to large manufacturing firms have lost a significant share of input production to foreign suppliers, and thus account for part of the weakness in manufacturing employment.[9]

Another important factor in the decline of domestic manufacturing employment is that some Mexican manufactures have been displaced directly by imports. The limited employment growth that has occurred in manufacturing for the domestic market has been mainly in very small firms and in the informal sector, with low pay and usually without benefits.

The export manufacturing model in Mexico has also failed to generate much growth in jobs at the high-skills end of the spectrum, in areas such as research, engineering, design, and accounting. One study of the skills component of manufacturing jobs in Mexico found that in 2000, the proportion of skilled labor in the manufacturing sector was only 9.9 percent. [10] The skilled labor component in manufacturing was actually less than the average share of skilled labor in the overall economy, 13.9 percent.

The limited job creation under the manufacturing model currently prevalent in Mexico is of particular concern when put in the context of other changes that are likely to affect future employment growth in the sector. Mexico enjoyed the advantage of being the first low-wage country to strike a free-trade agreement with the United States and Canada. However, as more free-trade agreements are negotiated, unilateral preference programs are expanded, and World Trade Organization (WTO) membership grows, the first-mover advantage is progressively diluted. The accession of China to the WTO, in particular, has meant mounting competition for Mexico's manufactured exports, particularly in labor-intensive sectors such as apparel and electronics. In 2003, China displaced Mexico as the second-largest exporter to the United States (after Japan). It is no accident that Mexico was the last WTO member to agree to the terms for China's accession to the trading organization. The proliferation of free-trade agreements by the

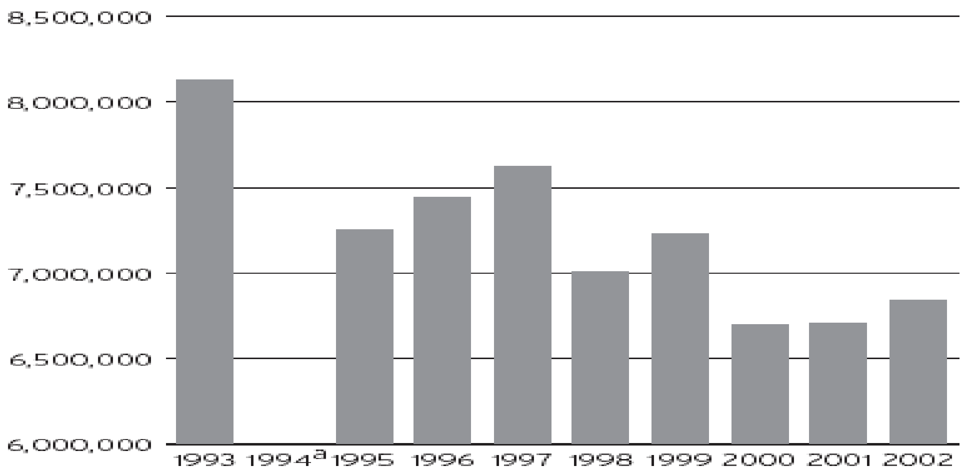
United States and Canada also means that the value of Mexico's market access advantages will erode as other low-wage countries gain similar access. For example, proposed free-trade pacts with Central America would add a sizable pool of lower-wage labor to the available regional labor supply, undermining Mexico's current advantage.

<u>Agricultural Employment</u>

As noted above, Mexico has had a net trade deficit in agricultural goods with the United States every year since NAFTA took effect, except the peso crisis year of 1995, when the huge devaluation of the peso made most dollar-denominated products too expensive for Mexicans. The agricultural trade deficit existed before NAFTA, but it grew after enactment of the trade pact and was larger in 2002 than in any previous year. Tariffs on the most sensitive crops in both the United States and Mexico have yet to be eliminated, and so the nature of bilateral agricultural trade will continue to evolve. However, the pattern to date challenges the conventional wisdom that agricultural liberalization is good for the developing country in a trade relationship with a developed economy. The one bright spot for Mexico, an increase in exports of fruits and vegetables, has not kept pace with imports of U.S. grains and oilseeds. This may be due in part to greater efficiency among U.S. producers, but it is also partly due to U.S. subsidies. By one estimate, U.S. corn was sold in Mexico from 1999 through 2001 at prices 30 percent or more below the cost of production.[11]

The increasing trade deficit has translated into job losses in agriculture. Agricultural employment in Mexico actually increased somewhat in the late 1980s and early 1990s, employing 8.1 million Mexicans at the end of 1993, just before NAFTA came into force. Employment in the sector then began a downward trend, with 6.8 million employed at the end of 2002, a loss of 1.3 million jobs.[12] While not all of that reduction can be attributed to NAFTA, other forces that affected trade, such as the sharp devaluation of the peso during 1994-1995, pushed in the opposite direction, toward greater growth of Mexican exports over imports. In fact, 1995 was the one post-NAFTA year in which Mexico had a surplus in its agricultural trade with the United States, and agricultural employment did improve modestly for a short period thereafter. However, once the peso stabilized, the agricultural trade balance again turned against Mexico and agricultural employment resumed its decline. During this period, Mexico was also liberalizing trade with other partners, so the entire impact cannot be ascribed to NAFTA. But the WTO has determined that Mexico reduced its agricultural tariffs much more for the United States than for other trading partners.[13] Thus, agricultural trade liberalization linked to NAFTA is the single most significant factor in the loss of agricultural jobs in Mexico (see Figure 3).

Figure 3: Mexican Employment in Agriculture
Employees



Source: INEGI/STPS, National Employment Survey (ENE).
Note: Agriculture actually refers to the primary sector, which also includes fishing, forestry, and trapping.
a. Data for 1994 not available.

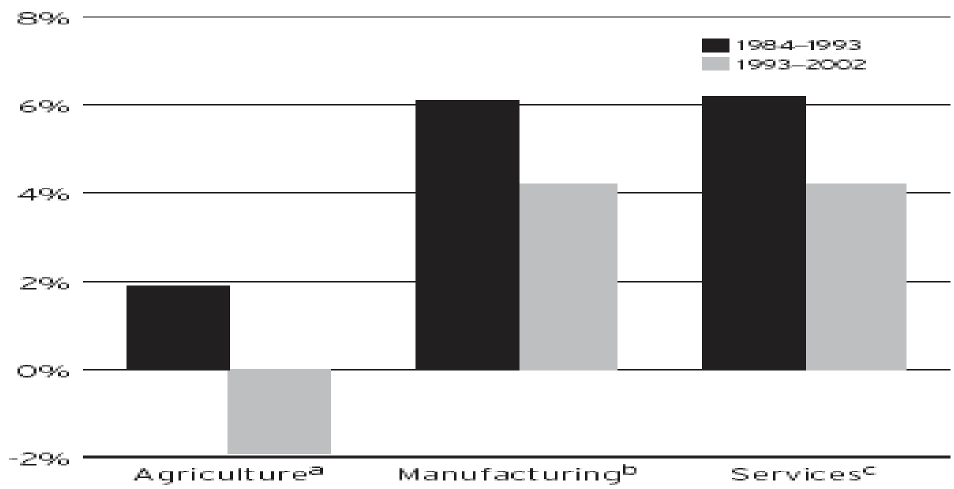
The release of labor from the agricultural sector largely offset the employment gains in the export-manufacturing sector that occurred after NAFTA took effect. As noted earlier, it is impossible to establish precisely what proportion of the gain in export manufacturing jobs and the loss in agricultural jobs between 1994 and 2002 was directly attributable to NAFTA. However, it is clear that the sum of the effects of the trade pact to date has not been a strong net gain in overall employment and may have been a small net loss of jobs for Mexico. Further, the long-term effects are still uncertain, as most manufacturing tariffs have now been eliminated, while the most sensitive agricultural tariffs have yet to come down.

While the evolution of trade-related employment since enactment of NAFTA is disappointing, the substitution of manufacturing jobs for agricultural jobs is generally positive for development, representing a move up the production ladder. However, as noted above, there are some reasons for concern about the Mexican manufacturing sector. These include the limited development of forward and backward manufacturing linkages that would multiply job creation, the erosion of Mexico's first-mover advantage, and the decline in jobs in manufacturing for domestic consumption.

Service Sector Employment

NAFTA has had little direct effect on employment in the service sector, because most services are not traded and those that are, such as financial and telecommunications services, are not very labor intensive. Mexico has had a small trade deficit in services with the United States, so any impact on employment is likely to be negative, although not large. Nevertheless, the service sector is key to an overall understanding of the Mexican employment situation, because it is here that most Mexicans find employment. It is also the epicenter of the growth in the so-called informal sector. The share of total employment found in the service sector increased from 51 percent immediately before NAFTA took effect to 57 percent in 1997. Most of this growth was due to absorption of labor from the agricultural sector, which decreased from 25.7 percent of employment in 1993 to 17.3 percent in 2002 (see Figure 4).[14]

Figure 4: Mexican Average Annual Employment Growth by Sector, Before and After NAFTA



Source: INEGI/STPS, National Employment Survey (ENE).
a. Primary sector includes agriculture, fishing, forestry, and trapping.
b. Secondary sector includes mining, manufacturing, and construction.
c. Tertiary sector includes transportation, utilities, communications, trade, financial, and social services. Mexican data are currently under revision by the STPS and INEGI.

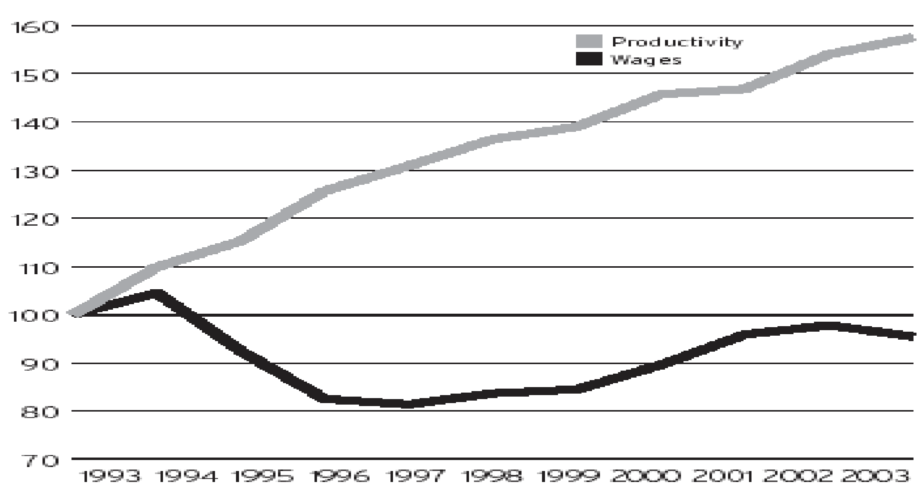
Displacement of subsistence farmers, in part because of increased agricultural imports from the United States as a result of NAFTA tariff cuts, led rural households to struggle to maintain adequate income levels. Mexico has no unemployment insurance program, and so displaced workers must find alternative employment. Due to sluggish employment growth in manufacturing, as well as the limited skills of many agricultural workers, employment was found (or created) mainly in low-pay, low-productivity jobs in the service sector such as domestic work, street vending, and personal services and repairs. Much of this was in the informal sector, which comprises self-employment, employment in microenterprises, and other forms of employment that do not provide benefits such as health care and pensions.[15] Overall, the informal sector grew during most of the 1990s, with employment in informal jobs approaching 50 percent of all employment in Mexico in 1995 and 1996, following the peso crisis and the subsequent economic contraction. After economic growth resumed in the late 1990s, the informal sector shrank somewhat, but still accounts for about 46 percent of Mexican jobs.[16] This reservoir of low-wage, low-productivity workers shows no sign of being absorbed by Mexico's export sector in the foreseeable future.

Wages and Productivity

Real wages for most Mexicans are lower today than when NAFTA took effect. This stunning setback in wages cannot be attributed primarily to NAFTA, however. Indeed, wages today are below their 1980 levels. Most of the decrease in real wages observed over the last twenty years can be traced to two periods of sharp wage declines. The first was during the debt crisis of the early 1980s, when a devaluation of the peso and contractionary policies designed to achieve macroeconomic stability and meet the terms demanded by international holders of Mexico's debt led to a sharp drop in wages. The second decline occurred as a result of the peso crisis of 1994-1995. When the peso was sharply devalued in each crisis, the cost of imported goods and the rate of inflation both shot up, while wages were constrained by the government's monetary and wage-setting policies. Wages gradually recovered after each of those macroeconomic shocks. However, they did not grow enough in either recovery period to return to previous levels. This pattern is true of both traded and nontraded sectors of the economy, as well as for employees of small, medium, and large firms.[17]

While NAFTA is not the cause of the two major setbacks in Mexican wages, it is striking that a free-trade agreement that dramatically increased exports and foreign direct investment has not done more to increase wages and living standards for average Mexican workers--or even for workers in most export firms--relative to pre-NAFTA levels. Trade theory suggests that a country with an abundance of low-skill labor (such as Mexico) that opens to trade will experience increasing returns (wages) to its low-skilled workers. However, wages for production workers in both maquiladora and non-maquiladora manufacturing are still below pre-NAFTA levels. Some analysts have suggested that, for a variety of reasons, trade increased the demand for highly skilled labor in Mexico relative to the demand for less skilled workers.[18] But even for highly educated workers in the manufacturing sector (such as professional, technical, and administrative staff), real wages in the late 1990s were below those in 1993, with the only exceptions occurring in a few regions along the U.S. border.[19] This same pattern holds for other sectors of the economy. Workers with university degrees and even postgraduate study received lower real wages in 2000 than in 1993.[20] The disappointing wage performance has occurred despite the fact that Mexican workers' productivity has increased since NAFTA took effect (see Figure 5).

Figure 5: Manufacturing Productivity and Real Wages in Mexico
Index: 1993=100



Source: INEGI/STPS, Monthly Industrial Survey (EIM), Economic Information Bank (BIE), Indicadores Economicos de Coyuntura
Notes: Productivity and wage data cover both production and non-production workers. The maquiladora sector is not included in this data series. Wages include salaries, bonuses, and benefits. Data for 1993–2002 are annual averages; 2003 is January–September average.

Increasing productivity is a necessary condition for sustainable increases in wages, since over time an economy can only afford to consume what it produces. But increased productivity is not sufficient to guarantee wage increases. Wage outcomes will depend in part on supply and demand in labor markets, and in part on the quality (and any bias) of institutions that have been established to determine how the gains from productivity are distributed. At present, labor market supply continues to exceed demand in most categories of labor in Mexico, contributing at least a partial explanation for poor wage results. In addition, the increasing integration of global production as a result of liberalized trade and improved protections for foreign investors has meant that, for many categories of unskilled and semi-skilled labor, competition is found not only in national labor markets but also internationally, as firms make production and sourcing decisions based in part on labor costs in various countries. The accession of China and other low-wage countries to the WTO has increased the supply of labor that firms can tap while still being guaranteed access for their output to the world's rich markets, including the United States and Canada. Differences in tariffs and transportation costs may not offset larger differences in unit labor costs. (Unit labor costs reflect the combination of wages and productivity).

While labor market supply and demand and footloose global production undoubtedly contribute to the decoupling of wages from productivity seen in Mexico, it is also the case that Mexican institutions have been biased against wage increases. For example, it has been government policy to hold down the minimum wage over most of the last two decades. This has been done both to increase global competitiveness of Mexican labor and exports and to meet structural adjustment goals. The minimum wage determines many other wages in Mexico, which are set as multiples of the minimum, and so the impact is felt beyond the lowest-paid jobs. Further, unionization and collective bargaining, among the main institutional mechanisms for determining how gains from productivity increases will be distributed between employers and workers, have been repressed in Mexico through weak labor laws. In the maquiladoras, for example, it is a widespread practice for employers to conclude "protection contracts" with corrupt or non-existent trade unions. Since Mexican labor law allows only one union to hold a contract in a workplace, these contracts preclude efforts by workers or more legitimate unions to bargain for wage increases. There have been numerous substantiated allegations of Mexican labor authorities allowing employers to collude with non-representative unions to avoid vigorous collective bargaining.[21]

Inequality and Poverty

Gauging the effects of trade on real people requires an assessment of trade's impact on inequality and poverty, because the gains and losses from trade are not distributed evenly. Inequality in Mexico is high, as it is in much of Latin America. This is a cause for concern because it undermines social stability and political cohesion. Furthermore, societies with highly unequal economies have been shown to reduce poverty less effectively and at slower rates than more equal societies.[22] Some studies have also shown that overall growth is reduced over the long term by highly unequal income distributions, thus constraining the incomes of all.[23]

Income inequality had been declining in Mexico for several decades up to the early 1980s, but it reversed course after the debt crisis of 1982 and the resulting macroeconomic contraction and structural reforms. Inequality then increased for most of the following decade, but began to abate again in the early 1990s, the years immediately before NAFTA. However, since 1994 inequality has again been on the rise. Compared to the period before NAFTA, the top 10 percent of households have increased their share of national income, while the other 90 percent have lost income share or seen no change.[24]

Income inequality in Mexico has a geographic dimension as well. Historically, Mexico's southern states have been poorer, while the regions around the capital and along the U.S. border have been relatively more prosperous. From 1940 to 1980, targeted government policies led to an increasing convergence in per capita income among regions. However, following the macroeconomic crisis of the 1980s, the long trend toward convergence in regional incomes first stopped and then reversed, with regional inequality widening again in the 1990s.[25]

The share of people living in extreme poverty in Mexico has followed a similar pattern, shrinking dramatically during the 1960s and 1970s (from 61 percent to 30 percent) and then increasing after the 1982 debt crisis. Like economic inequality, the incidence of poverty increased through the remainder of the 1980s (reaching 41 percent by 1989) and then began to decline somewhat in the early 1990s, with the extreme poverty rate at 31 percent when NAFTA took effect. Poverty surged again during the peso crisis of 1994-1995, to over 40 percent. Since then, it has again declined, but at 31 percent the proportion of Mexicans living in poverty is still slightly higher than the level seen in the late 1970s.[26]

Learning from the NAFTA Experience

At ten years, the long-term effects of NAFTA on employment, wages, and incomes in the countries of North America cannot yet be judged. However, some lessons are emerging on the basis of ten years' data that can usefully inform future trade negotiations between developed and developing countries, as well as Mexico's own policies going forward.

In developing economies with surplus labor, such as Mexico, the NAFTA experience demonstrates that trade pacts cannot be counted on to produce much, if any, net employment growth in the absence of other targeted policies. Policies to maximize employment gains from trade would include measures to promote supplier and support industries in the developing country and terms in the trade agreement that reward rather than discourage the use of domestic inputs in the production of exported goods.

The experience of Mexico also suggests that a developing country with a high proportion of its labor force in low-productivity agriculture should negotiate very long transition periods for the phaseout of tariffs on basic crops and should carefully consider the sequencing of liberalization, to allow the absorption of rural workers into other sectors that expand due to liberalized access to foreign markets, before basic crops are liberalized.

The negative situation currently faced by Mexico also demonstrates that a developing country must use that transition time aggressively to prepare the rural population for the wrenching adjustment it will face. Policies should be adopted to shift farmers to competitive crops, to develop alternative sources of employment in rural areas, and to invest heavily in education to prepare the population for more modern occupations.

Another important factor for Mexico was that some of its most important basic crops, such as maize, were exposed to competition from subsidized U.S. crops that are sold at artificially low prices, sometimes below the cost of production. Further, U.S. policy on agricultural subsidies changed significantly in ways that were not foreseen during the NAFTA negotiations, most notably in the passage of a farm bill in 2002 that increased subsidies. Successful competition will be impossible for the developing country under those circumstances. In negotiations over agricultural trade, developing countries should also insist on terms, including special safeguards, that will prevent a wealthier trading partner from dumping or otherwise distorting trade through domestic or export subsidies.

Increased productivity appears to be a likely gain from trade, based on the Mexican experience. However, if such productivity gains are to be shared with workers as rising wages, the institutions and public policies that affect wage outcomes should be strengthened. Countries with weak laws and institutions related to freedom of association and collective bargaining should address these problems before or in conjunction with trade liberalization. Minimum wage policies may need to be reconsidered; dispute resolution mechanisms, such as arbitration, could also be strengthened.

If the gains from trade are to be shared widely throughout a country, the institutional mechanisms that govern how costs and benefits of economic change are distributed may need to be strengthened. Government measures that affect income distribution, such as tax and transfer mechanisms, should be reviewed and fortified to deal with the impact of trade opening.

Because the impacts of trade are uneven, governments should establish mechanisms that help offset the losses suffered by those in declining sectors. Countries opening to trade should first strengthen social safety nets to assist those who lose as a result of trade-induced economic restructuring. Trade adjustment assistance should provide income support to workers and small farmers during transitional periods, as well as funds for training for new occupations. Such policies are highly desirable complements to trade pacts. In Mexico, budget constraints and policy choices have precluded the establishment of even the most basic unemployment insurance. The harsh impact of agricultural trade liberalization on subsistence farmers has not been offset by appropriate government policies. Poor countries should seek assistance for funding of transition programs from their richer negotiating partners, as part of the trade package.

---

[1] Maria Elena Vicario, Sandra Polaski, and Dalil Maschino, *North American Labor Markets: A Comparative Profile,* Secretariat of the North American Commission for Labor Cooperation, Washington, DC, December 2003). Available at www.naalc.org. The authors' calculations are based on data from the Mexican National Institute of Statistics, Geography, and Informatics (INEGI) and the Ministry of Employment and Social Insurance (STPS).

[2] In 2002, 89 percent of total Mexican exports went to the United States, while 1.7 percent went to Canada; 63 percent of total Mexican imports were from the United States and 4.2 percent were from Canada. (The data for

Canada are from Statistics Canada, National Income and Expenditure Accounts; for Mexico, from INEGI, System of National Accounts; and for the United States, from the Bureau of Economic Analysis, National Income and Product Accounts.)

[3] INEGI, Monthly Industrial Survey (EIM). This survey also excludes microenterprises, small businesses with fewer than five employees that operate in the informal sector.

[4] Ibid.

[5] Enrique Dussel Peters, "Industrial Policy, Regional Trends and Structural Change in Mexico's Manufacturing Sector," in Kevin J. Middlebrook and Eduardo Zepeda, eds., *Confronting Development: Assessing Mexico's Economic and Social Policy Challenges* (Palo Alto, Calif.: Stanford University Press, 2003).

[6] *The Impact of Trade Agreements: Effect of the Tokyo Round, U.S.-Israel FTA, U.S.-Canada FTA, NAFTA, and the Uruguay Round on the U.S. Economy*, publication no. 3621 (Washington, D.C.: U.S. International Trade Commission), August 2003. Available at www.usitc.gov

[7] Ibid.

[8] Rogelio Ramirez De La O, "What Has Changed in the Performance of Employment and Wages in Mexico after NAFTA?" paper prepared for the Third Seminar on Income and Productivity of the North American Commission on Labor Cooperation (February 2000). Available at www.naalc.org/english/publications

[9] This effect could be amplified by a tendency in Mexican monetary policy to overvalue the peso as means of controlling inflation. This disadvantages Mexican producers when they try to export, while imposing less of a burden on U.S. multinationals using Mexico as an assembly platform, since the movement of components into Mexico and of finished products out will largely cancel out or at least smooth out the exchange rate effects.

[10] These figures are for overall manufacturing. The definition of *unskilled* here is possession of up to twelve years of formal education, while *skilled* is defined as possession of thirteen years or more. Jose Romero and Alicia Puyana, *The Mexican Economy after Two Decades of Trade Liberalization*," 2002. Paper on file with the author.

[11] *United States Dumping on World Agricultural Markets*, Cancun Series Paper no. 1 Minneapolis: Institute for Agriculture and Trade Policy), 2003. Available at www.iatp.org

[12] *North American Labor Markets* (see note 1), based on INEGI National Income and Expenditure Survey (ENIGH) and STPS/INEGI National Employment Survey (ENE).

[13] *World Trade Report 2003* (Geneva: World Trade Organization), August 2003. Available at www.wto.org

[14] *North American Labor Markets* (see note 1).

[15] There are a variety of definitions of the informal sector. The definition used here was developed for STPS by Clara Jusidman in 1993. It takes into account establishment size, the position held, and the industry involved.

[16] *North American Labor Markets* (see note 1).

[17] Carlos Salas and Eduardo Zepeda, "Employment and Wages: Enduring the Costs of Liberalization and Economic Reform," in Kevin J. Middlebrook and Eduardo Zepeda, eds., *Confronting Development: Assessing Mexico's Economic and Social Policy Challenges* (Palo Alto, Calif.: Stanford University Press, 2003).

[18] See, for example, Raymond Robertson, "Trade Liberalisation and Wage Inequality: Lessons from the Mexican Experience," *World Economy,* vol. 23, no. 6 (June 2000), pp. 827-49.

[19] Carlos Salas and Eduardo Zepeda, *Wages and Productivity in Mexico: Theoretical and Empirical Issues*, July 2003, paper commissioned for this report, on file with the author.

[20] *The Mexican Economy* (see note 10), based on data from the Ministry of Labor and Social Welfare National Employment Survey.

[21] The labor side-agreement to NAFTA includes provisions for public petitions to any of the member governments if labor rights violations occur in any of the other NAFTA countries. Several petitions have been filed alleging interference with freedom of association and collective bargaining rights in Mexico. The petitions were filed with the U.S. National Administrative Office, the body that administers the agreement for the United States. While expressing its findings in diplomatic terms, the National Administrative Office did find significant shortcomings in this area in many cases (see www.dol.gov/ilab/programs/nao).

[22] See, for example, Martin Ravallion, "Can High-Inequality Developing Countries Escape Absolute Poverty?" World Bank Policy Research Working Paper no. 1775 (Washington, D.C.: World Bank), 1997. The World Bank Web site provides a useful summary of research on this topic at www.worldbank.org/poverty/inequal/abstracts/index.htm

[23] Dani Rodrik, *Where Did All the Growth Go? External Shocks, Social Conflict and Growth Collapses*, (Cambridge, Mass.: Kennedy School of Government, Harvard University), 1997, provides a political-economic model. Other models are catalogued at the World Bank Web site (www.worldbank.org/poverty/inequal/abstracts/index.htm).

[24] *North American Labor Markets* (see note 1). Data based on INEGI, ENIGH; and *The Mexican Economy* (see note 15).

[25] Gerardo Esquivel, *Sources of Regional (Non)Convergence in Mexico* (Washington, D.C.: World Bank), **2002.** Available at www.worldbank.org

[26] Diana Alarcon and Eduardo Zepeda, "Economic Reform or Social Development? The Challenges of a Period of Reform in Latin America," *Journal of Development Studies*, forthcoming.