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## **The North American Economies After NAFTA**

### **A Critical Appraisal**

The North American Free Trade Agreement (NAFTA) went into effect on January 1, 1994, amid conflicting predictions that it would either propel the Mexican economy into the ranks of “first world” developed nations or create a “giant sucking sound” of jobs leaving the United States (and, to a lesser extent, Canada). To a large extent, these hyped predictions by supporters and opponents alike were mirror images of each other, because they both rested on the presumption that NAFTA would create large numbers of jobs in Mexico. Ten years later, the reality has been much more mixed than the more extreme advocates or critics of NAFTA anticipated. Some of the most important economic changes among the three member countries, such as the wide swings in exchange rates and the continued large influx of Mexican immigrants into the United States, pertain to issues that were ignored in NAFTA. In spite of NAFTA, there has been little, if any, net job creation in the tradable goods-producing sectors of the Mexican economy (agriculture and manufacturing).

Fundamentally, what NAFTA did was to accelerate and codify a process of economic integration that was already taking place in North America in a way that maximally promoted the interests of large multinational corporations (MNCs) and financial institutions. In spite of its name, NAFTA was not a pure free trade agreement. On the one hand,

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although it reduced trade barriers and opened up many markets, it also contained numerous sectoral exclusions and mercantilist “rules of origin” that benefited various special interests. Contrary to Canadian and Mexican hopes, it did not abolish antidumping and countervailing duties for member countries, although it did provide for special dispute resolution procedures. On the other hand, NAFTA contained strong protections for private investors’ rights (both pecuniary and intellectual) that, in some respects, went beyond anything in existing law in any member country and that exceeded the prerequisites for free trade in the traditional sense. The Mexican government was convinced that it had to accept such provisions to attract more foreign investment,<sup>1</sup> while the U.S. and Canadian governments were eager to promote the agendas of their big business and financial interests. When the investors’ rights provisions were combined with the liberalization of financial services, the result was a “trade agreement” that effectively created a much more integrated capital market for North America.

NAFTA did not explicitly address labor market issues to any significant extent. The agreement did not liberalize U.S. immigration rules for Mexican workers (except for highly educated professionals) or do anything to ameliorate the situation of the millions of illegal Mexican immigrants in the United States. The agreement did not do anything to increase adherence to internationally accepted labor rights and standards in the three nations, despite a symbolic and ineffectual “side agreement” that merely exhorted each country to enforce its own existing labor laws.

Nevertheless, labor markets in North America have continued to become more integrated *de facto*, even if NAFTA did not integrate them *de jure*. As recognized in the Heckscher–Ohlin model of trade, international trade in goods substitutes for international movements of “factors of production” by altering the relative demand for different factor inputs and thereby creating both winners and losers, depending on whether those factors are employed more intensively in export-oriented or import-competing activities. When capital mobility is combined with trade liberalization, and when production becomes more integrated across national borders, the employment and earnings prospects for workers in different countries become increasingly interdependent. The labor market effects of trade and capital flows, however, are felt much more on the side of wages and income distribution, as well as in the sectoral and regional distribution of employment, rather than in the total number of jobs.

NAFTA was only one of the factors that affected North American economies in the past decade, however, and it was not necessarily the most important. As Nora Lustig predicted:

In the three countries, however, the extent of labor dislocation and its effect on unemployment and real wages will be more affected by the performance of the economies than by the impact of liberalizing their mutual trade. The evolution of fiscal and monetary policies, and the exchange rate in particular, could have a far greater impact on aggregate employment and wage levels than changes caused by the removal of tariff and nontariff trade barriers. The impact of domestic macroeconomic policies, particularly those of the United States, is felt well beyond the border. (Lustig 1992: 139)

On the one hand, as Lustig anticipated, macroeconomic factors and exchange rate fluctuations have been quantitatively more important than NAFTA-related reductions in trade barriers in driving the changes in trade flows and their attendant impact on employment. On the other hand, NAFTA accelerated and deepened the integration of the three member economies and, to this extent, has tied their economic futures more closely together—including by making the two smaller economies more dependent than ever on U.S. economic growth and their competitiveness in the U.S. market. Thus, the trade and investment liberalizing provisions of NAFTA interact with other factors, making it difficult to separate the effects of NAFTA and those other factors.

The difficulties in disentangling how much the North American economies have been affected by NAFTA's specific provisions as compared with other causes are the motive for the word "after" in the title of this article. That is, the following discussion is concerned with identifying what has happened *since* NAFTA went into effect, without necessarily attributing *causality* to NAFTA. Nevertheless, the tenth anniversary of NAFTA in 2004 is a propitious time for assessing how the three member nations' economies have fared since they joined together in this economic integration effort.

### **Trends in Trade and Investment Flows**

At first blush, NAFTA appears to be a stunning success in the areas it was most directly concerned with, namely, international trade and foreign investment. As Table 1 shows, the bilateral trade of the United States with both Canada and Mexico grew rapidly in the 1990s (espe-

Table 1  
**U.S. Bilateral Goods Trade with Canada and Mexico, Selected Years**  
 1990–2003 (billions of U.S. dollars)

	1990	1993	2000	2003
Exports to Canada	83.4	100.7	178.9	169.9
Imports from Canada	93.1	113.1	233.7	224.2
Balance with Canada	-9.8	-12.4	-54.8	-54.3
Exports to Mexico	28.1	41.5	111.2	97.2
Imports from Mexico	30.5	40.4	136.8	139.0
Balance with Mexico	-2.4	1.1	-25.6	-41.8

Source: U.S. Department of Commerce, Bureau of Economic Analysis, International Transactions Accounts, release of June 18, 2004, table 2 (available at [www.bea.gov](http://www.bea.gov)).

cially between 1993 and 2000), although it leveled off after 2000.<sup>2</sup> Canada was already the largest trading partner of the United States (measured by the sum of exports plus imports) prior to NAFTA, and by the early 2000s, Mexico had surpassed Japan to become the second largest.<sup>3</sup>

Table 1 also shows that the United States had increasing bilateral trade deficits with both Canada and Mexico, especially between 1990 and 2000 with the former and between 1993 and 2003 with the latter. However, these deficits must be viewed in the context of a large and growing overall U.S. trade deficit with all countries during this period. To adjust for country size, Table 2 shows the *proportional* U.S. trade deficits, measured by the ratios of U.S. imports to exports, for Canada and Mexico compared with other major U.S. trading partners, and the average for all countries for 1993 and 2003. The U.S. import–export ratios with Canada and Mexico were smaller than the averages for all countries in both 1993 and 2003—although the ratio with Mexico deteriorated relatively more than the ratio with Canada over this decade. Thus, trade within North America (and, indeed, with the entire Western Hemisphere) is relatively more of a two-way street for the United States than trade with most other countries and regions, and this has been true since before NAFTA went into effect.

Net “capital flows” (as measured by the financial account balance) into Mexico have been strongly positive throughout most of the period since 1990, except for the crisis and recovery years of 1995–96 (see Figure 1). Also, there was a notable change in the composition of net

Table 2  
**Proportional U.S. Trade Deficits, Canada and Mexico Compared with Other Major Trading Partners and Regions, 1993 and 2003** (ratios of U.S. imports to exports)

Country or region	1993	2003
Canada	1.12	1.32
Mexico	0.97	1.43
Other Western Hemisphere	0.94	1.53
European Union	1.10	1.66
Average for all countries	1.29	1.77
Asia (excluding Japan and China)	1.36	1.80
Japan	2.28	2.35
Africa	1.84	3.17
OPEC members	4.49	4.13
China	3.63	5.39

*Source:* U.S. Department of Commerce, Bureau of Economic Analysis, International Transactions Accounts, release of June 18, 2004, table 2 (available at [www.bea.gov](http://www.bea.gov)), and author's calculations.

*Note:* Countries and regions are ordered by ascending rank in 2003.

financial inflows after 1994. Most of the inflows Mexico received in the early 1990s were composed of “hot money” or portfolio capital that quickly fled the country during the panic of 1994–95. Foreign direct investment (FDI) inflows were relatively small prior to 1994. Since 1994, however, FDI has accounted for the bulk of Mexico's net financial inflows.<sup>4</sup>

In several respects, however, there is less to these impressive-looking statistics than meets the eye. With regard to capital flows, the drop-off in FDI inflows in 2002–3 demonstrates that, although these inflows may be more stable than portfolio funds, there is no guarantee of FDI inflows persisting at the high levels of a few years earlier.<sup>5</sup> With regard to trade, 11.6 percent of total reported U.S. exports to Canada and Mexico were accounted for by re-exports of goods imported from other countries and transshipped through the United States as of 2002.<sup>6</sup> Thus, exports of U.S.-produced goods were correspondingly lower than total reported exports. Also, some of the major growth sectors in North American trade and FDI flows are sectors that received special favors in NAFTA through a restrictive “rule of origin,” such as automobiles, textiles, and apparel. In these industries, products are required to have very high pro-

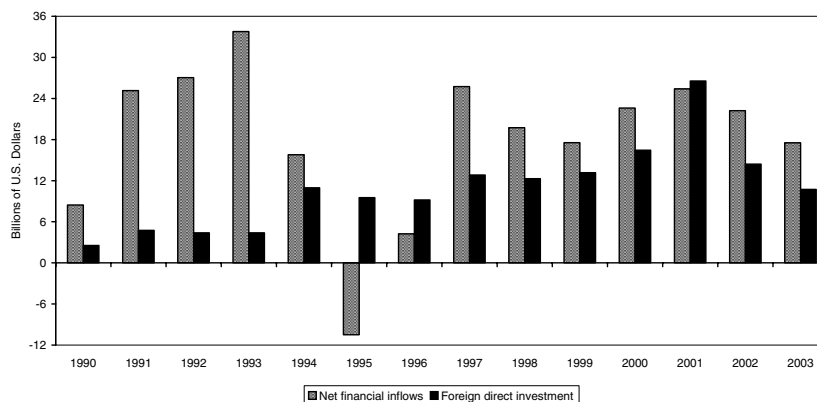


Figure 1. Net Financial Inflows and Foreign Direct Investment in Mexico, 1990–2003

Source: International Monetary Fund (IMF), *International Financial Statistics*, online version (available at <http://ifs.apdi.net>).

Note: Net financial inflows are the financial account balance; foreign direct investment is the inflow into Mexico only.

portions of “North American content” to qualify for NAFTA tariff exemptions. Although trade in these sectors has grown rapidly, it is not exactly *free* trade. Furthermore, although U.S. trade with Mexico increased rapidly after NAFTA went into effect in 1994, it is not clear how much of the increase can be attributed to NAFTA, as opposed to changes in other variables such as the value of the peso, the growth of U.S. national income, and Mexico’s prior trade liberalization of the 1980s.<sup>7</sup>

Most importantly, a significant portion of the apparent increase in Mexico’s trade is illusory, because the parts and components shipped into Mexico for assembly in *maquiladoras* and then re-exported in an assembled form are double-counted in both imports and exports. In 2003, out of Mexico’s total exports (to all countries) of \$164.9 billion, \$77.5 billion consisted of maquiladora exports that were offset by \$59.1 billion of maquiladora imports.<sup>8</sup> Thus, the net exports of the maquiladoras amounted to only \$18.4 billion, and true Mexican exports excluding maquiladora imports were 36 percent lower than the total gross exports reported in 2003.

The prevalence of this reciprocal trade in semifinished products is an

important indicator of the degree to which production has become continentally integrated, but it is also a reminder of the limited degree to which Mexico's reported exports actually embody Mexican value added. Thanks to the prevalence of maquiladora assembly operations and the high import content of all Mexican manufacturing, value added in Mexican manufacturing has grown relatively little over the past decade, despite the apparently large growth in manufactured exports,<sup>9</sup> and many export industries have weak or nonexistent linkages to the rest of the Mexican economy. However, some parts of the Mexican manufacturing export sector are technologically dynamic. Mexico's automotive industry has been substantially upgraded by FDI, and its electronics sector increasingly produces "more sophisticated . . . products that go beyond mere assembly" (Vega and de la Mora 2003: 175–81). Nevertheless, the gains from these dynamic export activities do not yet appear to have had sufficient spillover effects to boost the overall growth of the Mexican domestic economy.

### **Jobs, Wages, and Income Distribution**

From a Mexican perspective, net job creation in tradable goods production (i.e., manufacturing and agriculture) since NAFTA went into effect has been extremely disappointing, and possibly negative.<sup>10</sup> Unfortunately, comprehensive and consistent data for Mexican employment are not available for all of the relevant sectors and years. Nevertheless, one important indicator is the trend in employment in Mexico's export-oriented maquiladora plants. Between 1993 and 2003, such employment rose by 520,031 workers (from 542,074 to 1,062,105), as an increase of 749,158 from 1993–2000 was followed by a loss of 229,127 from 2000–2003 (due to the combined effects of the U.S. recession and increased U.S. imports from other sources, especially China).<sup>11</sup> Although the number of maquiladora workers thus about doubled, this is a relatively small number of jobs created over a ten-year period in a country that needs to create nearly 1 million jobs per year just to keep up with the growth of its labor force.<sup>12</sup> The monthly survey of a sample of Mexico's largest (non-maquiladora) manufacturing firms shows employment falling by roughly 7 percent (from about 1.4 to 1.3 million) over the period 1994–2003, although this survey does not cover all non-maquiladora manufacturing employment.<sup>13</sup> And, although there is not a consistent survey across the whole period, the available data indicate a decline in total

agricultural employment of at least several hundred thousand and possibly as many as a million.<sup>14</sup>

Although comprehensive statistics are not available, it appears safe to conclude (following Polaski 2003) that the huge job gains that were widely expected for Mexican manufacturing workers did not materialize, and that the small gains that occurred in the maquiladoras were offset by losses in domestic manufacturing and agriculture. The small net job gains in Mexican manufacturing should not be surprising, however, because they were a direct result of the sluggish growth of value added (as opposed to gross exports) discussed above. Of course, total Mexican employment has increased since 1993. But, this increase occurred mostly due to rising employment in nontradable activities, such as services (including an increasing amount of nonwage “informal” employment), not because of large job creation in traded goods production (see Salas and Zepeda 2003).

At the same time, the job losses in the United States that can be attributed directly to trade with Mexico are similarly small. For example, Scott (2003) estimates that 879,280 jobs were lost in the United States as a result of the worsening of the U.S.–Mexican and U.S.–Canadian trade balances combined between 1993 and 2002, of which 486,190 can be attributed to the increased U.S. trade deficit with Mexico and 393,090 to the increased deficit with Canada.<sup>15</sup> Scott’s precise estimates can be criticized on various grounds,<sup>16</sup> and his methodology estimates only the employment effects of changes in *actual trade flows*—it does not account for the underlying causes of those changes (such as reductions in trade barriers, fluctuations in exchange rates, or differences in economic growth). Nevertheless, Scott’s estimate of the number of jobs that were relocated from the United States to Mexico after 1993 is plausible, because it is close to the net increase in employment in the Mexican maquiladoras, that is, about one-half million jobs. Scott’s estimate of jobs lost to Canada is also plausible given the falling value of the Canadian dollar and its strong effect in reducing Canadian–U.S. relative labor costs during the time period he analyzed (1993–2002), as discussed below (see also Seccareccia 2005).

How significant are job shifts of this magnitude in the U.S. labor market? It depends on the perspective one takes. Relative to total U.S. employment, which was about 138 million in 2003, the estimated job losses due to trade with Mexico and Canada seem very small. According to Scott’s estimates, less than 0.7 percent of U.S. workers lost jobs



to the two NAFTA partners combined, and only about 0.4 percent lost jobs to Mexico alone. Relative to manufacturing employment—which is a more relevant measure of the number of jobs in tradable goods production—these job losses appear less trivial, however. The estimated job losses due to trade with Mexico and Canada combined amount to about 5 percent of peak U.S. manufacturing employment of about 17.6 million in 1998 and to 31 percent of the 2.9 million jobs lost in U.S. manufacturing between 1998 and 2003 (the corresponding figures for Mexico alone are 3 percent of peak employment and 17 percent of jobs lost).<sup>17</sup> Thus, U.S. trade with Canada and Mexico has had a much larger impact on changes in manufacturing employment “at the margin” than on total U.S. employment.

Although job gains and losses have received the most attention in policy debates, the more widespread effects of trade liberalization and economic integration on the labor force are felt in regard to the distribution of income. Although it certainly cannot be blamed on NAFTA alone—indeed it predated NAFTA—there has been a disturbing trend of rising inequality between labor and capital and among different strata of the labor force in all three member countries (see Scott et al. 2001). As Table 3 shows, all three countries have had a widening gap between the growth of labor productivity and real compensation in manufacturing since 1990.<sup>18</sup> This gap has widened the most in Mexico and the least in Canada, but it has widened persistently in all three countries. In Mexico, the sharp drop in real compensation between 1994 and 1997 could be blamed on the peso crisis, but the failure of real compensation to increase over the entire decade 1993–2003 cannot be blamed on a short-run macroeconomic crisis that ended in 1996. The upshot of these widening gaps has been a corresponding rise in profit margins for the MNCs that dominate manufacturing production in all three nations,<sup>19</sup> and especially for production located in Mexico.

In addition, inequality has been increasing among different groups of workers. The United States has had a trend of a rising relative wage for relatively more-skilled (professional and technical) workers for the past two decades, which was only partly arrested by small gains for less-skilled workers during the economic boom of the late 1990s (Mishel et al. 2001). In Mexico, the skill premium has also increased, and regional inequality has worsened, as real wages have fallen relatively less in the northern border region (where the new export industries are concentrated) than in the rest of the country (Hanson 2003). Canada has also

Table 3  
**Productivity (output per hour) and Real Hourly Compensation for All Persons Employed in Manufacturing, 1990–2003** (indexes, 1990 = 100)

	United States		Canada		Mexico	
	Productivity	Compensation	Productivity	Compensation	Productivity	Compensation
1990	100.0	100.0	100.0	100.0	100.0	100.0
1991	101.8	102.4	101.8	101.7	104.9	105.7
1992	108.0	104.5	106.8	105.6	113.4	114.7
1993	112.3	104.3	113.2	105.8	122.9	121.3
1994	117.2	105.4	118.5	107.3	132.2	126.8
1995	120.8	105.0	120.3	107.4	139.6	112.2
1996	124.8	104.3	117.4	106.7	149.8	100.1
1997	130.2	104.2	121.4	107.3	155.9	98.8
1998	135.0	108.9	121.0	107.1	161.8	101.6
1999	141.1	111.1	124.2	107.0	166.4	102.5
2000	146.1	117.3	126.7	105.5	176.1	108.7
2001	146.1	116.8	124.2	106.5	177.8	116.4
2002	156.7	119.6	n.a.	n.a.	186.3	118.6
2003	164.5	123.8	n.a.	n.a.	190.4	120.2

Sources: U.S. Department of Labor, Bureau of Labor Statistics (available at [www.bea.gov](http://www.bea.gov)); Statistics Canada (available at [www.statcan.ca](http://www.statcan.ca)); Instituto Nacional de Estadística Geográfica e Informática (INEGI), Encuesta Industrial Nacional (available at [www.inegi.gob.mx](http://www.inegi.gob.mx)); and author's calculations.

experienced widening wage inequality, although this has been more ameliorated by government transfer programs in Canada than in the other two countries (Jackson 1999; Scott et al. 2001).

Of course, it remains controversial to what extent these trends are accounted for by the forces of “globalization,” and regional integration through NAFTA is only part of those forces (though an especially important part for Mexico). There has been an extensive debate over the degree to which changes in income distribution and wage inequality can be attributed to international trade, capital mobility, labor migration, technological change, and other factors. A full discussion of these issues would be beyond the scope of this article. Nevertheless, a few points may be made briefly here.

The findings that capital is gaining relative to labor and that more-skilled workers are gaining relative to less-skilled workers in Mexico

are contrary to the predictions of a standard Heckscher–Ohlin model, presuming that Mexico is relatively abundant in labor overall and in less-skilled labor in particular. The rising skill premium in Mexico can be given a trade-theoretic explanation if one observes that the new, expanding export activities in Mexico, although relatively less skilled compared to the U.S. industrial job structure, are relatively skill-intensive compared to the rest of the Mexican economy (Hanson 2003).<sup>20</sup> The fact that labor compensation is falling relative to productivity in all three NAFTA member countries can be explained by Dani Rodrik’s analysis of globalization. Rodrik (1997) argues that when employers have a more credible threat of relocating jobs abroad, the labor demand curve becomes more elastic, and hence, it is more difficult for workers to win increases in wages and benefits.<sup>21</sup> Although this may be most visible to Americans or Canadians in threats to move jobs to developing countries, the same threat is also felt in the latter, where workers fear the loss of their jobs to other developing nations. Mexico, especially, has been negatively affected by increased U.S. imports from China, a nation with much lower wages and an undervalued currency.<sup>22</sup>

### **Exchange Rates, Macroeconomic Performance, and Income Levels**

While public attention has focused mainly on NAFTA, real exchange rate fluctuations for the three North American currencies have been an order of magnitude larger than the tariff reductions enacted by that trade agreement. The Mexican peso exhibits the most dramatic swings (see Figure 2), with a strong appreciation during the pre-NAFTA boom in financial inflows in 1990–93, followed by a stunning collapse during the crisis of 1994–95, and then a gradual recovery to a peak in early 2002 followed by a more gradual (and partial) depreciation into early 2004.<sup>23</sup> Meanwhile, the U.S. dollar gradually appreciated by a cumulative 43 percent between July 1995 and February 2002, and it subsequently depreciated by only 17 percent through March 2004. The relatively small overall decline of the U.S. dollar since February 2002 masks divergent behavior relative to two different groups of currencies: a larger decline relative to the euro and a few other floating-rate currencies (including the Canadian dollar), and smaller declines or no change relative to the manipulated currencies of Japan, China, and certain other countries (see Blecker 2003). Canada, in contrast, began the 1990s with

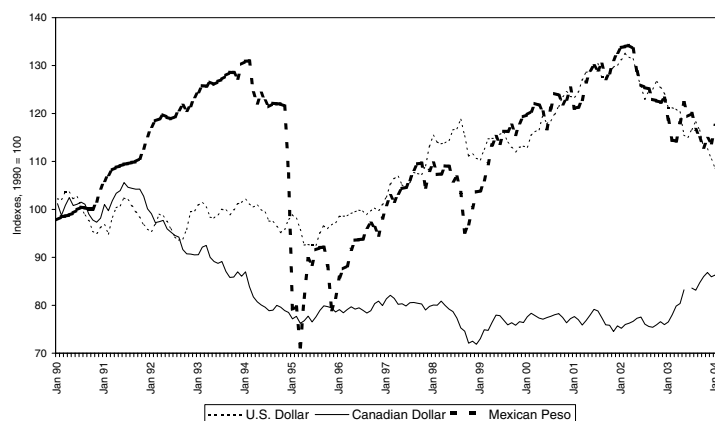


Figure 2. Real Exchange Rate Indexes for the United States, Canada, and Mexico, January 1990–March 2004

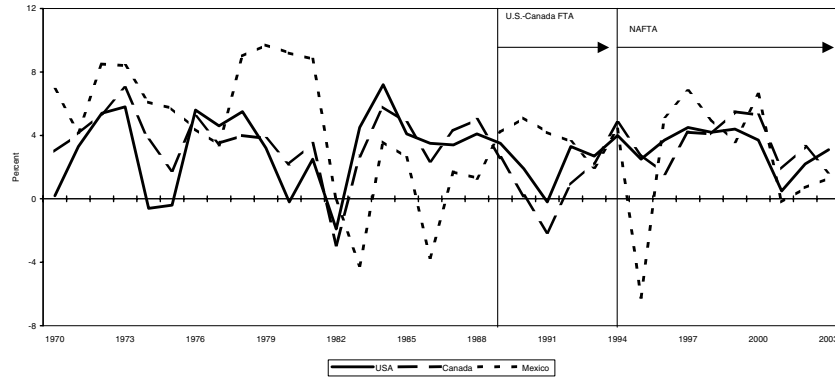
Source: IMF, *International Financial Statistics*, online version (available at <http://ifs.apdi.net>), and author's calculations.

Note: All indexes are CPI-adjusted; the U.S. and Canadian indexes are multilateral trade-weighted while the Mexican index is bilateral with the U.S.

a significantly overvalued currency. The Canadian dollar then depreciated substantially between 1991 and 1995 and remained low until it experienced a partial recovery in 2003–4.

These currency gyrations, in turn, have had a major impact on trade and growth in all three countries. The depreciations of the Canadian dollar and Mexican peso at different times during the 1990s contributed significantly to those countries' increasing bilateral trade surpluses with the United States, while the appreciation of the U.S. dollar was a major cause of the rising overall U.S. trade deficit, which is now approaching 5 percent of GDP. The high value of the Canadian dollar in the early 1990s was widely blamed for the country's poor growth and employment performance under the Canada–U.S. Free Trade Agreement (CUFTA) in 1989–93, while its lower value later in the 1990s held down Canadian labor costs in U.S. dollar terms, thus boosting Canada's exports and reducing its unemployment at that time (see Seccareccia 2005). The depreciated peso helped to spark Mexico's rapid export-led recovery in 1996–2000, along with other factors discussed below.

Another important aspect of the macroeconomic integration of North America is the positive correlation of Canada's and Mexico's business



**Figure 3. Annual Growth Rates of Real GDP, United States, Canada, and Mexico, 1970–2003**

Source: IMF, *World Economic Outlook*, April 2004 and earlier issues, online database (available at [www.imf.org/external/pubs/ft/weo/weorepts.htm](http://www.imf.org/external/pubs/ft/weo/weorepts.htm))

cycles with those of the United States. Canadian growth has been strongly correlated with U.S. growth for a long time (see Figure 3, which gives annual data for 1970–2003). Studies in the literature are divided on whether the correlation of Canadian and U.S. growth has been increasing or decreasing, but all studies find high degrees of correlation in these countries' growth, especially since about 1980.<sup>24</sup> The positive correlation of Mexican and U.S. growth, in contrast, is a much more recent phenomenon (see Figure 3). Between 1970 and 1995, there were several major cyclical episodes in Mexico that were uncorrelated with U.S. business cycles, including the oil boom of the late 1970s, the crash of 1986, the “emerging market” boom of the early 1990s (which occurred while the United States and Canada experienced recessions), and the peso crisis of 1994–95. But since 1996, Mexican growth has followed U.S. growth much more closely, with a boom in 1996–2000 followed by a recession in 2001 and a relatively sluggish recovery in the next few years.<sup>25</sup>

The relatively high degree of synchronization of growth rates among the three NAFTA members in recent years is an important indicator of the extent of macroeconomic integration in North America. Yet, for Mexico and Canada, this synchronization has been a mixed blessing. Given the overwhelmingly larger size of the U.S. economy, which accounted for 88 percent of total North American GDP in 2002,<sup>26</sup> it is

clear that the causality runs almost exclusively from U.S. growth to Mexican and Canadian growth. Although this looked like a good deal during the “new economy” boom in the United States in the late 1990s,<sup>27</sup> it did not look nearly as beneficial when U.S. growth slowed in 2001–3. Under present circumstances, it is difficult for either Mexico or Canada to sustain an autonomous growth dynamic with the absence of a strong pull from U.S. demand for their exports.

These exchange rate and growth data help to explain two mysteries in Mexico’s economic performance since the peso crisis of 1994–95. First, why did Mexico’s growth recover so quickly and strongly after the crisis? Some commentators have attributed the rapid recovery to NAFTA, which enhanced Mexico’s ability to attract FDI and promote exports (e.g., Lustig 2001: 98). NAFTA undoubtedly helped, but it would not have helped nearly as much if the peso had stayed as overvalued as it was in 1993–94. Although the peso crisis was exacerbated by financial and macroeconomic mismanagement on the part of the Mexican government, some devaluation of the overvalued peso was inevitable by 1994 (see Blecker 1996), and the depreciation of the peso in the mid-1990s must be counted as another contributing factor in the country’s rapid (and export-led) recovery. Furthermore, the U.S. market was growing at the fastest rate in three decades in the late 1990s, just when Mexico needed a lift from prosperous export demand. The U.S. economic boom combined with the depressed value of the peso made Mexico recover far more quickly than would have been expected from the tariff reductions and other provisions of NAFTA alone.

Second, by 2001–2, the peso had appreciated in real terms to levels similar to those of the precrisis levels of 1993–94 (see Figure 2), yet Mexico managed to avoid another currency collapse and financial crisis. There are several reasons for the better outcome in the early 2000s. Mexico adopted a managed float exchange rate policy in 1995, and when the peso became overvalued in 2001–2, the government was able to ease the peso down in value over the next two years without inviting a speculative attack, as it did when it tried to defend an indefensible peg in 1994. Also, a conventional measure of the real value of the peso (such as the index shown in Figure 2, which adjusts the nominal exchange rate by relative domestic consumer prices) may not be a good reflection of the country’s export competitiveness. Thanks to the strong productivity growth and real wage repression noted earlier, Mexico was able to hold down its unit labor costs and prevent export prices from rising as much

Table 4  
**Comparative National Income, Per Capita Income, and Real Wage Data, 1993 Versus 2002**

	Canada		Mexico		United States	
	1993	2002	1993	2002	1993	2002
GDP (current US\$ billions)	554.7	714.3	403.2	637.2	6,582.9	10,383.1
GDP per capita (constant 1995 US\$)	18,727	23,621	3,321	3,717	26,592	31,891
GNI per capita (current US\$)	20,250	22,390	4,230	5,920	25,800	35,400
GNI per capita (PPP \$)	19,480	28,930	6,680	8,800	25,570	36,110
Hourly compensation of manufacturing production workers, in US\$	\$16.55	\$16.02	\$2.41	\$2.61	\$16.51	\$21.37
<i>Percentages of U.S. Levels</i>						
GDP (current US\$ billions)	8.4	6.9	6.1	6.1	100.0	100.0
GDP per capita (constant 1995 US\$)	70.4	74.1	12.5	11.7	100.0	100.0
GNI per capita (current US\$)	78.5	63.2	16.4	16.7	100.0	100.0
GNI per capita (PPP \$)	76.2	80.1	26.1	24.4	100.0	100.0
Hourly compensation of manufacturing production workers, in US\$	100.2	75.0	14.6	12.2	100.0	100.0

Sources: World Bank, *World Development Indicators*, online version (available at [www.worldbank.org/data/](http://www.worldbank.org/data/)); and U.S. Department of Labor, Bureau of Labor Statistics, "International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, Revised Data for 2002" and "Supplementary Tables, 1975-2002," released May 19, 2004 (available at [www.bls.gov/fls/home.htm](http://www.bls.gov/fls/home.htm)).

as they would have otherwise.<sup>28</sup> In addition, the switch in the dominant form of financial inflows from “hot money” to FDI helped to stabilize Mexico’s balance of payments, although it did not prevent a drop-off in overall financial inflows in 2002–3, as noted earlier.

Finally, Mexico’s slower growth since 2001 has curbed the growth of import demand and, thereby, has helped to prevent an excessive trade deficit (in spite of its bilateral surplus with the United States, Mexico runs an overall deficit with all nations). However, the need to repress domestic growth in order to prevent growing trade deficits represents a weakness in Mexico’s current policy paradigm. As a result of the trade liberalizations of the late 1980s and early 1990s, Mexico’s gains in export promotion have been offset by greater openness to imports, which has increased the country’s income elasticity of import demand (see Moreno-Brid 1999; Pacheco-López 2005). Thus, despite rapid export growth, Mexico finds itself chronically needing to use contractionary fiscal and monetary policies to prevent recurring balance of payments crises. This is an important reason why Mexico’s average growth rate has remained relatively low in the post-reform, post-NAFTA period compared with the earlier post-World War II decades (see Huerta González 2004; Moreno-Brid and Ros 2004).

The end result of all of these changes is that Mexico has thus far failed to achieve the convergence of average incomes with the United States and Canada that it hoped for when it joined NAFTA. Table 4 compares total GDP, three measures of per capita income, and hourly compensation of manufacturing production workers in the three NAFTA countries, in the year before NAFTA took effect (1993) and the most recent year for which all data were available (2002). By all these measures, Mexico has not gained any ground relative to the United States since 1993, and by some (especially manufacturing compensation in U.S. dollars), it has lost ground. There is no evidence of any catch-up in average Mexican living standards to U.S. or Canadian levels under NAFTA. Canada fell behind relative to the United States in all the indicators (total GDP, per capita income, and hourly compensation) measured in current U.S. dollars, but these indicators are heavily influenced by the lower value of the Canadian dollar in 2002 compared with 1993. When per capita income is measured in real terms or at purchasing power parity (PPP) exchange rates, Canada improved slightly relative to the United States. Mexico, in contrast, has completely failed to close the “development gap” with the United States and Canada in the first ten years of NAFTA.



## Conclusions

If the objective of NAFTA was to promote intra-North American trade and investment flows and to improve profitability for large multinational corporations, the evidence suggests that it has been successful. But NAFTA was not sold to the publics of the three countries based on these narrow objectives. NAFTA's promoters predicted that it would give a tremendous stimulus to the growth and development of the Mexican economy and (when not predicting actual job gains) argued that any sacrifices of U.S. and Canadian workers would be minimal prices to pay for boosting the economy of their poorer neighbors to the south. In the prevailing neoliberal ideology of the early 1990s, Mexico could supposedly rescue its economy from the lost decade of the 1980s through "trade not aid."

Although the adjustment costs in the United States and Canada have not been large (except in specific industries and localities), liberalized trade and investment flows have not brought the promised developmental benefits to Mexico or led to its convergence with its richer northern neighbors. Ironically, the most painful adjustment costs have been felt in Mexico, and there is no single greater indicator of the failure of NAFTA (and related free-market reforms in Mexico) to solve that country's economic problems than the fact that an estimated 4 to 5 million Mexicans migrated to the United States during the 1990s.<sup>29</sup> NAFTA did not cause this massive migration, but it also did not boost employment or wages in Mexico enough to prevent it (as many NAFTA promoters claimed it would, prior to 1994). As long as income and compensation gaps of the magnitude shown in Table 4 persist, the more remunerative U.S. and Canadian job markets will continue to exert an ineluctable pull on Mexican workers.

Fundamentally, the overblown expectations for NAFTA were the result of an excessive faith in trade policy and foreign investment as engines of growth and development. As two Mexican scholars have written:

In order to achieve balanced and sustained development, Mexico must find mechanisms to make its domestic productive structure as dynamic as its export sector. Trade policy can be a powerful instrument to promote development, but it cannot be the only one. Nor can it be a substitute for domestic growth. (Vega and de la Mora 2003: 164)

Recognizing the limited ability of trade policy and foreign investment to stimulate domestic growth and solve development problems is a first

step toward constructing a more adequate policy paradigm for North America. In the coming years, the continent needs to move in two directions: greater cooperation in policy areas beyond trade and greater focus on domestic development policies inside Mexico.

There are many areas in which more continent-wide cooperation is needed. Exchange rates should be managed to stabilize real currency values and prevent excessive trade imbalances from arising (an objective that would *not* be served by fixed nominal exchange rates, formal dollarization, or a monetary union). A trade-off of increased rights and protections for Mexican migrants in the United States for increased labor rights and standards inside Mexico would do much to benefit Mexican workers and improve their living standards on both sides of the border. Most importantly, all three countries need to escape from the zero-sum game of competing over job opportunities through lower wages or exchange rates. This has to be accomplished by pursuing full-employment policies, instead of repressing domestic demand to placate financial investors.<sup>30</sup> Given the larger size of the U.S. economy and the importance of its market for Mexico and Canada, expansionary U.S. macroeconomic policies are especially important for allowing the latter two countries to achieve full employment and rapid growth without running into balance of payments constraints. To address all these issues and other social concerns (e.g., environmental protection), and to counter the otherwise excessive emphasis on private property rights in NAFTA, the three countries need to create a set of democratic governance institutions to oversee the continental integration process (see Pastor 2001).

It is also time to abandon the free-market ideology that pretends that trade and investment liberalization alone can propel Mexico's long-run economic development and enable it to converge to the United States. Mexico desperately needs more public investment in infrastructure and education, along with internal reforms to combat corruption, strengthen financial regulation, and enhance open, democratic institutions. A more efficient tax system would help Mexico pay for its needs in these areas without running large budget deficits (and without so much reliance on oil revenue). But given Mexico's lower per capita income level, a U.S.–Canadian development assistance fund for Mexico (on the model of the European Union's regional policy) is also essential to pay for the needed public expenditures (see Pastor 2004). Aside from the obvious benefits to Mexico, such a fund would be in the self-interest of the United States and Canada insofar as it would help to ameliorate the social pressures

that lead so many Mexicans to migrate northward and to create a more prosperous trading partner south of the border.

Finally, Mexico needs to move further up the “industrial ladder” to avoid becoming stuck in low-skill, low-wage assembly activities that offer few long-term developmental benefits. Mexico’s labor costs may look low relative to those of the United States or Canada, but they are not low relative to most other developing countries, and Mexico will not win in the long run by trying to play the game of offering cheap wages to attract labor-intensive FDI. By investing more in education, training, and infrastructure, Mexico can attract more skill-intensive industries with greater spillover benefits for the domestic economy—and a greater potential to raise Mexican families’ incomes toward U.S. and Canadian levels.

## Notes

1. According to Lustig, Mexico’s primary objective in seeking the NAFTA agreement was “to entice the capital inflows required for economic recovery and sustained growth” that “did not respond with the expected vigor to the Brady-type debt agreement and the far-reaching [domestic] economic reforms” in Mexico in the early 1990s (1992: 134).

2. Bilateral Canadian–Mexican trade remains relatively small, accounting for only about 2 percent of Mexico’s trade.

3. See U.S. Department of Commerce, Bureau of Economic Analysis, International Transactions Accounts, Release of June 18, 2004, table 2 (available at [www.bea.gov](http://www.bea.gov)).

4. This point has also been noted by Pastor and Wise (2003: 186–87).

5. See Máttar et al. (2003) on the limited benefits of Mexico’s FDI boom in the 1990s.

6. See Scott (2003: 3), who cites U.S. Census Bureau data.

7. Krueger (1999), Pacheco-López and Thirlwall (2004), and Pacheco-López (2005) find no statistically significant effects of NAFTA on Mexican exports, after controlling for other factors. Lederman et al. (2003: 231–40) claim to show that NAFTA increased Mexico’s global exports by 25–30 percent, but they use a model that does not control for the value of the peso (which depreciated significantly right after NAFTA went into effect, as discussed below).

8. These data are from the table, “Comercio exterior de maquiladoras y no maquiladoras, FOB/FOB,” obtained from the Mexican government’s statistical agency, Instituto Nacional de Estadística, Geografía e Informática (INEGI) (available at [www.inegi.gob.mx](http://www.inegi.gob.mx)).

9. See United Nations Conference on Trade and Development (2002: 77–81).

10. The following discussion covers the same data presented by Polaski (2003: 14–20), but this discussion is based on the original data series and qualifies some aspects of her presentation.

11. Annual averages were calculated by the author based on data from the table, “Industria Maquiladora de Exportación: Total Personal Ocupado,” Monthly Industrial Survey (Encuesta Industrial Mensual), from INEGI (available at [www.inegi.gob.mx](http://www.inegi.gob.mx)).

12. World Bank, *World Development Indicators*, online database (available at [www.worldbank.org/data/](http://www.worldbank.org/data/)).

13. Data from before 1994 are from a smaller survey and are not comparable. Smaller firms, possibly including new start-up companies, are not included in this survey. The 1999 Mexican Census showed 4.2 million total employed persons in manufacturing, but the census is not conducted on an annual basis, and the annual Survey of National Employment (Encuesta Nacional de Empleo) includes manufacturing in a broader category of “industries of transformation.” All Mexican employment data are from INEGI.

14. Mexico’s new Survey of National Employment (Encuesta Nacional de Empleo) shows a decrease of 728,630 from 1998–2003, while its previous Survey showed a decrease of 372,390 between 1991 and 1998 (both surveys include fishing and related primary activities along with agriculture, but exclude mining). Because the two surveys are not consistent, however, it is not possible to compute an exact change over the entire period.

15. Scott’s estimate includes a correction for goods re-exported by the United States to Mexico and Canada, which he subtracts from reported U.S. exports, and is based on the employment multipliers associated with the types of goods traded between the United States and Canada and Mexico. The job losses attributed to the two countries separately were calculated by this author using the percentages of each country in the increased total trade deficit with both countries as reported by Scott.

16. One problem is the implicit assumption that all increases in U.S. imports from its NAFTA partners come at the expense of domestic production instead of at the expense of imports from other countries. However, Scott’s methodology controls for the fact that Canada and Mexico are better customers for U.S. exports than other countries, as noted above, because the jobs associated with increased U.S. exports to Mexico are subtracted from the jobs lost due to increased imports.

17. Based on U.S. Department of Labor, Bureau of Labor Statistics data, as reported in *Economic Report of the President*, 2004, table B-46 (available at [www.gpoaccess.gov/eop/tables04.html](http://www.gpoaccess.gov/eop/tables04.html)). “Peak” manufacturing employment here means the highest level reached during the late 1990s economic boom.

18. Canadian data ending in 2001 are on a SIC basis, and newer data for 2002–3 based on the NAICS are not yet available. The U.S. data are all on a NAICS basis; the Mexican data are spliced together from two different monthly industrial surveys, pre- and post-1993. Similar figures are presented in Jackson (1999) for Canada and the United States and in Polaski (2003) for Mexico and Canada.

19. Although part of the increasing productivity–compensation gap in the United States can be attributed to a rise in consumer prices relative to output prices, there has, nevertheless, been a rising trend of the profit share in the U.S. economy that dates back to the early 1980s (Wolff 2003).

20. Alternatively, the Heckscher–Ohlin model can be used to explain the falling real wages of (unskilled) workers in Mexico if there is a factor intensity reversal, as suggested by Larudee (1998): if agriculture is (unskilled) labor-intensive in Mexico but capital-intensive in the United States, and if Mexico imports agricultural prod-

ucts (e.g., corn) under free trade, then free trade hurts (unskilled) labor in both countries. Another trade-theoretic explanation, suggested to this author by David Shirk, is that the large supply of unskilled labor in China could be depressing wages of such workers globally, including in Mexico.

21. This argument of Rodrik can be viewed as a simple expression, in supply-and-demand terms, of the idea that heightened capital mobility and liberalized foreign trade reduce the bargaining power of labor.

22. See Thompson (2001) and Shatz and López-Calva (2004) on Mexican losses of FDI and jobs to China.

23. Although the real exchange rate shown for Mexico in Figure 2 is a bilateral index with the U.S. dollar only, because the vast majority of Mexico's trade is with the United States, this index reflects the predominant direction of change in the peso's value. Because the peso and U.S. dollar were both appreciating between 1996 and 2002, a real effective (trade-weighted) exchange rate index for the peso would show an even greater appreciation in the late 1990s and early 2000s than this bilateral real exchange rate with the U.S. dollar.

24. Chen and Curtis (2004) find that the correlation of U.S. and Canadian growth rates of real GDP increased between 1950–79 and 1980–99, while Lederman et al. (2003: 46) find that this correlation was lower in 1994–2001 than in the longer period 1981–2001. However, both of these studies find the correlation to be consistently over 60 percent in the years after 1980. The reasons for variations between Canadian and U.S. economic performance, such as exchange rate fluctuations, are discussed elsewhere in this paper.

25. Authers (2004) demonstrates a strong correlation of the U.S. and Mexican monthly indexes of industrial production from December 1997 through May 2004.

26. See the data in Table 4.

27. For an analysis of why the U.S. boom in the late 1990s was not sustainable, see Pollin (2003).

28. The Banco de México's index of export prices in U.S. dollars (available at [www.banxico.gob.mx](http://www.banxico.gob.mx)) was much more stable in the 1990s than one would expect from the large swings in the value of the peso. Although to some extent this probably reflects pricing-to-market and transfer-pricing behaviors, it also suggests that a conventional real exchange rate measure may exaggerate the harm to Mexico's export competitiveness caused by domestic consumer price inflation.

29. For a range of estimates, see Martin (2003) and Papademetriou (2003).

30. See Stanford (1999) and Seccareccia (2005) on repressive domestic demand policies in the Canadian economy and Huerta González (2004) on the Mexican economy.

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