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## Is NAFTA Economic Integration?

Some analysts consider the North American Free Trade Agreement (NAFTA) part of a larger economic integration process that goes beyond narrowly defined trade policy (Pastor 1992, Weintraub 1993b). Because of U.S. initiatives, issues with only tenuous direct connections to trade have come under negotiation. A harmonization of national policies that appears tantamount to a broad movement toward integration seems to be under way.

But is it? NAFTA clearly makes trade freer on a broad front among the signatories and will result in the efficiency enhancements typical of trade openings. However, in many cases, what may at first look like integration appears on further scrutiny simply to be a continuation of a Hegelian dialectic over trade policy.<sup>1</sup>

To show why a Hegelian dialectic appropriately characterizes what took place with NAFTA and the parallel agreements and why economic integration seems a less appropriate characterization, we begin by considering the antecedents of the NAFTA negotiations. The events that precipitated NAFTA began, at the very latest, in the 1970s.

### Conflict and innovation in recent U.S. trade postures

From the end of World War II until the late 1970s, U.S. trade policy involved an unconditional interpretation of the most favored nation (MFN) clause of the General Agreement on Tariffs and Trade (GATT).<sup>2</sup> The United States was the world's principal proponent of a multilateral approach to international trade liberalization.

But by the late 1970s, the United States had become frustrated with GATT. The sources of frustration were the caravan effect (GATT negotiations emulate a caravan that moves only as fast as its slowest camel); the free-rider problem (some countries, chiefly the less developed ones, have

benefited from the multilateral system without much lowering their own barriers); and the rise of trade-related issues not covered by GATT, such as direct foreign investment, trade in services, and intellectual property rights (Primo Braga 1989, 245).

Over time, these three problems became more frustrating for the United States. While the caravan effect is self-explanatory, both the free-rider problem and trade-related issues not covered by GATT deserve more detailed attention.

Although many countries had entered GATT because they wanted open foreign markets, they were often less interested in opening their own. For the less developed countries (LDCs), whose competitive positions against the developed nations were unfavorable in many industries, these predictions were considered understandable. GATT allowed the LDCs to surrender less protectionism than the industrialized nations and offered LDCs special openings to the developed countries under

<sup>1</sup> We use the term *Hegelian dialectic*, in the context of trade policy, to signify the process by which innovations in trade liberalization are countered by innovations in protectionism and are succeeded by some synthesis that is temporarily acceptable to each of the two competing sides, followed by yet another innovation in liberalization, countered by yet another innovation in protectionism, followed by yet another synthesis, and so on. It should be noted that Kane (1988) poses the evolution of financial regulation in the same way, while Gruben (1992) describes NAFTA as a game that leads to a dialectical progression.

<sup>2</sup> The MFN clause requires a member nation that lowers tariffs on specific products from a given country to lower them to all nations. However, less developed countries receive "special and differential treatment" that exempts them from certain aspects of the MFN in the interests of economic development. In supporting the unconditional interpretation of the MFN, the United States persistently has contested the policy of special and differential treatment.

the generalized system of preferences (GSP).<sup>3</sup> But to some countries, these special opportunities were not enough. A historical peculiarity of GATT offered countries a freeway to still more protectionism.

Because pre-World War II protectionists had focused their energies on tariffs, tariffs are what GATT had been designed to lower. Over time, many GATT signatories simply replaced their tariff barriers, which are discouraged by GATT, with other, GATT-legal barriers. Quantity restrictions, expressed through quotas and permits, became commonplace, as did regulations and standards concerning “product quality.” Export subsidies became popular. Detailed regulations against direct foreign investment surfaced. Some countries became harbors for intellectual piracy, maintaining weak patent and copyright protection in order to become centers for unlicensed production.

During the 1980s, particularly in LDCs, these innovations in protectionism proliferated in response to terms-of-trade shocks and foreign debt problems. Surmising that the raw materials price booms of the 1970s would continue in the 1980s, many LDCs had devised debt-led growth strategies and found foreign bankers to support them. But at the end of the 1970s, a shift in U.S. monetary policy

triggered a sudden rise in interest rates, making debt a tortuous route to any goal. At the beginning of the 1980s, the prices of the LDCs’ traditional raw materials exports entered a protracted slump. To address their new balance-of-payments and debt problems,<sup>4</sup> many LDCs adopted philosophies more reminiscent of eighteenth-century mercantilism than of GATT, and they expressed them through GATT-legal nontariff innovations.

Meanwhile, certain technological developments caused the United States to find foreign protectionist innovations increasingly baneful. Since the 1960s, innovations in transportation and communications had inspired a rise in “production sharing,” in which firms located one portion of a total manufacturing operation in Taiwan, another stage in Singapore, and perhaps another in Mexico. By the 1980s, further revolutions in communications and in production technology had allowed a surge in opportunities for U.S. trade in services. This surge prompted the United States to push its trading partners to permit more such trade.

Trade in services, however, involves complications that are less common in the goods trade. Much services trade operates most efficiently in locations where producer and consumer physically meet. For trade in services, someone must travel, typically the seller. The service producer prefers to locate itself and its capital-goods inputs at the market, so the buyer will not have to travel to use them.

But in international trade, locating at the market means that the host country’s investment rules have an overriding effect on sales opportunities. Rules that restrict foreign investment hinder U.S. services trade. Moreover, because many U.S. services exports involve specialized technological knowledge—embodied in machinery, in software, or in employees—the development and profitability of such trade often depends on the protection of intellectual property rights. The risk of technology theft has a chilling effect. By the 1980s, the accelerating pace of technological development, together with the increasing ease of pirating new technology, made such risk steadily greater.<sup>5</sup>

Since these factors made opening trade more attractive to the United States at the same time that LDC innovations in protectionism were raising trade barriers, the United States launched a program of what came to be called “aggressive reciprocity.”<sup>6</sup> Section 301 of the Trade Act of 1974 and

<sup>3</sup> The GSP allows virtually duty-free entry of designated products from designated developing countries (the LDCs) into the United States and other developed nations.

<sup>4</sup> Latin America’s debt-led commercial policies, which mixed export incentives with import restrictions, did help Latin America begin to generate balance-of-trade surpluses from 1983 on. Even so, the region’s external debt continued to mount. That is, the regional surplus in the balance of goods and nonfactor services remained too small to offset the deficit in the factor services balance (interest, profits, and dividends) (Primo Braga 1990).

<sup>5</sup> For a discussion of the acceleration in technology, the rising ease of appropriating it without permission, and other issues related to the United States’ increased interest in the protection of intellectual property, see Mody (1990).

<sup>6</sup> It is important to note that the United States continued its program of aggressive reciprocity even after Latin American countries began to lower their trade barriers in the broad-based liberalization efforts of the late 1980s and early 1990s. This pattern is one of many that raise questions as to how many of the United States’ announced efforts on behalf of free trade are really acts of disguised protectionism.

its revision, “Super 301,” under the Omnibus Trade and Competitive Act of 1988 allowed the United States new maneuverability in threatening unilateral trade retaliations. The United States used these threats to extract trade openings from other countries and to induce trading partners to tighten their intellectual property protection. (Such was the case, for example, with Brazil and computer software.)

Innovative protectionists soon contrived to apply measures expressly designed to open trade to quite different purposes. For example, the United States used Section 301 and Super 301 to negotiate “voluntary” export restraints, a U.S. innovation in protectionism in which exporting countries “volunteer” to restrict their exports to the United States. Foreigners slow in volunteering were not long in receiving U.S. threats of 301-based trade sanctions. The United States also stepped up countervailing actions, such as raising duties, against countries it charged with dumping or other “unfair” trade practices.<sup>7</sup> In many cases, the merits of these charges have been questionable (Bovard 1992).

In sum, in the context of U.S. trade policy, two types of dialectics were operative. First, a dialectic operated between forces in the United States that wanted free trade abroad but not so much at home, and foreign countries that also wanted free trade abroad but not so much at home. That is, as one side developed innovations in both liberalization and protectionism, they were countered by those of the other side.

Second, the realignment in trade patterns that inspired the United States’ initiatives at the GATT negotiations also changed who wanted protectionism and who did not. Some U.S. firms that had favored protectionism discovered that changes in production technology and in markets had made freer trade agreeable. Other traditional protectionists found that these same changes favored increased protectionist efforts.

To illuminate this redistribution of protectionist pressures, some details of the dynamics of production-sharing deserve attention. Production sharing simply meant that it became more common for U.S. firms to export partially manufactured products for further processing abroad, and then to import, perhaps for further processing in the United States before final sale.

As such trade developed, firms and industries carrying out production sharing inclined increasingly toward trade liberalization at home (Gonzalez and Velez 1992). After all, producers who import their inputs often benefit from low trade barriers. Manufacturing firms’ lobbying efforts on behalf of protectionism began to diminish (Magee 1990). Moreover, U.S. production-sharing manufacturers became more interested in negotiating liberalized foreign investment laws in foreign countries that made attractive platforms for production-sharing operations. These interests were consistent with those of U.S. service-exporting firms, even though the latter intended to sell abroad the products of their foreign operations.

On the other side of the dialectical process, U.S. labor groups viewed increased U.S. manufacturing operations abroad as signifying fewer union jobs in the United States. Accordingly, unions increased both direct and indirect pressure toward restricting trade.

In an innovative example of indirect pressure, U.S. labor organizations began to ally with groups that were concerned about environmental problems abroad. These allied organizations accused U.S. firms of moving operations abroad to take advantage of looser environmental laws or enforcement. They petitioned Congress for measures that might impede firms from reexporting to the United States. Such measures could not only discourage some firms from continuing to operate abroad, even if environmental considerations had not been the motive underlying their locations, but could discourage others from establishing foreign operations in the future.<sup>8</sup>

### NAFTA as the next step

These redistributions of pressures for and against trade liberalization manifested themselves

<sup>7</sup> Between 1970–75 and 1980–85, U.S. countervailing actions went up by more than 1,000 percent (Nam 1987).

<sup>8</sup> An example of another alliance between environmentalists and protectionists appears to have surfaced in debates over NAFTA. An anti-NAFTA advertisement in the September 21, 1993, New York Times sponsored by Public Citizen,

further in the establishment of the negotiating frameworks that would lead to NAFTA. The opportunities for a free trade agreement had increased with the decline of protectionist pressures from U.S. manufacturers. U.S. labor organizations, however, urged negotiation for parallel agreements without which, unions argued, NAFTA itself would promote a type of competition that was destructive.

The progress of the parallel negotiations offered much evidence to suggest that protectionists saw the discussions of side agreements as a second chance to sink NAFTA. As one after another agreement was reached on environmental and other issues, none was adequate. Disparities between U.S. and Mexican labor and environmental laws—

or their enforcement—increasingly attracted charges of “social dumping” (AFL–CIO 1992).

One major sticking point in the parallel negotiations implies a great deal about whether the U.S. agenda involved integration or whether it reflected the protectionist side of a dialectical process. Although all three parties concurred that violation of the parallel covenants ought to incur penalties, the United States was unique in arguing that the penalties ought to include selected revivals of protectionism. Canadian and Mexican negotiators, perceiving a contradiction in the use of protectionism to achieve free trade, favored fines.<sup>9</sup> Moreover, some of NAFTA’s moves toward what has been referred to as integration can also be seen as attempts by U.S. protectionists to broaden their efforts against freer trade by pushing issues that Canadians and Mexicans may perceive to involve their national sovereignty.

In any case, the efforts of pro- and antiprotectionist forces have jointly determined NAFTA and will likely determine how the agreement will evolve over time.<sup>10</sup> To more fully elucidate these competing forces—and the likely outcomes of their conflict over the life of the agreement—we selectively discuss NAFTA itself, its expected effects, and the political forces that will influence its implementation. We also consider in more detail the emergence of the parallel agreements.

### **The negotiated NAFTA: Liberalization and protectionism**

In arguing that NAFTA may signify something besides economic integration, we have focused on the parallel agreements because they reflect both protectionist and liberalizing pressures. But NAFTA itself reflects the same opposing forces.

NAFTA does not free trade, but it certainly liberalizes it. Over a fifteen-year period, NAFTA initially reduces and ultimately eliminates all tariffs and most nontariff barriers between Canada, Mexico, and the United States. Moreover, NAFTA is a GATT-forward agreement; no signatories can increase their tariffs on imports from countries within or outside the free trade area.

Although full elimination of tariffs will take fifteen years (*Table 1*), about 68 percent of goods imported from Mexico could enter the United States without tariffs as soon as the agreement goes

*Sierra Club, Friends of the Earth, the Humane Society of the United States, and other environmental groups declares:*

*Take the Marine Mammal Protection Act. It specifies that yellowfin tuna cannot be imported from countries that violate a U.S. law that limits the number of dolphins killed while catching the tuna. Mexico currently violates this law. But under NAFTA, the manner in which a product is produced (in other words, the way fish are caught) cannot alone prevent their import. Good-bye dolphin protection.*

*Offering a rather different perspective, Jan Gilbreath (1993, 10) notes:*

*The United States in 1990 outlawed Mexican tuna to protest fishing practices that had resulted in thousands of dolphin deaths. Nearly four years later the U.S. embargo continues—despite the fact that Mexican dolphin kills today are negligible. That Mexico, the world’s fourth largest tuna producer, could respond so dramatically to U.S. environmental concerns and still fail to break down an environmentally inspired trade barrier has prompted many policymakers to question whether the tuna–dolphin issue has shifted from a U.S. policy of protecting global resources to one aimed at protecting a domestic tuna industry.*

<sup>9</sup> *In a compromise, the final draft of the parallel agreements contains provisions for fines against the governments of offending countries. If these fines are not paid, tariffs will be imposed.*

<sup>10</sup> *As an example, in an attempt to secure votes sufficient to ratify NAFTA, the Clinton administration entered into NAFTA-related agreements that were not part of NAFTA in order to reerect barriers in orange juice trade that NAFTA would have lowered.*

Table 1  
**NAFTA: Schedule of Tariff Elimination**

Category Date	U.S. imports from Mexico (Percent of total)	Mexican imports from the United States (Percent of total)
Duty-free before agreement	13.9	17.9
Additional opening effective on NAFTA start date: January 1, 1994	53.8	31.0
Additional opening five years after	8.5	17.4
Additional opening ten years after	23.1	31.8
Additional opening fifteen years after	.7	1.4
Total Value	\$28.9 billion	\$14.2 billion

SOURCE: USITC (1993, 1–3).

into effect. At the same time, 50 percent of U.S. exports to Mexico are now tariff-free. Other, less obvious merchandise trade barriers also were removed. In the traditional in-bond, or *maquiladora*, industries' performance (export) requirements<sup>11</sup> and restrictions on domestic sales evaporated when the agreement went into effect.

Moreover, NAFTA addresses much more than merchandise trade. In a trilateral context, the agreement realizes the United States' long-held goals of liberalizing trade in services and foreign investment rules abroad, and it tightens the protection of intellectual property. It is important to note that, in this context, NAFTA represents an achievement the United States has had more difficulty realizing in a broader multilateral context.<sup>12</sup>

Although NAFTA opens Canada and the United States, it accomplishes its most significant liberalizations in Mexico. NAFTA expands Canadian and U.S. companies' ability to establish or purchase a business in Mexico and facilitates their ability to sell out if they want to leave. NAFTA also loosens previous restrictions on expanding operations for such companies, and it removes restrictions on profit remittances to foreign countries. Local content requirements are eliminated, although NAFTA-wide content rules will exist. Through NAFTA, Mexico extends temporary work permits to service providers from Canada and the United States and

removes licensing and performance criteria.

Despite much liberalization, however, NAFTA initially retains protectionist elements, some of which persist indefinitely. NAFTA protects sensitive sectors—such as agriculture, minerals, banking, textiles, and apparel—by stretching out the phase-in time. This protection is temporary.

But as the synthesis of liberal and protectionist pressures, NAFTA contains other types of protection that are not only permanent but also raise trade barriers above pre-NAFTA levels.<sup>13</sup> In a number of sectors—notably automobiles, textiles, and apparel—NAFTA imposes North American content rules, some of which appear to increase pro-

<sup>11</sup> For example, before NAFTA, U.S. automobile manufacturing subsidiaries in Mexico had to export at least two units of value added for every unit imported. NAFTA eliminates such requirements.

<sup>12</sup> At the 1982 GATT ministerial meetings, the United States attempted to launch a new round of negotiations focused on these issues but was defeated. These same issues have been addressed at the subsequent Uruguay Round but, from the perspective of U.S. goals, with limited success.

<sup>13</sup> See Morici (1993), Johnson (1993), Barry and Siwicki (1993), and USITC (1993).

tectionism. Under the Canada–United States Free Trade Agreement, for example, automobiles could be imported duty-free if they contain at least 50 percent Canadian–U.S. inputs. For auto imports to receive NAFTA benefits, the North American rule is 62.5 percent. For textiles or apparel to qualify for “free” trade under NAFTA, all components—starting with the yarn or fiber—must be made in North America.<sup>14</sup> This NAFTA covenant extends and strengthens the protectionism inherent in the broader, multinational Multifiber Agreement.

Nevertheless, NAFTA unequivocally liberalizes trade in North America. It is also noteworthy that the agreement offers only minimal opportunities for trade diversion, in which efficient non-NAFTA producers would be squeezed out of trade with NAFTA countries simply because the treaty reduces trade barriers among North American countries only (Primo Braga 1992). However, the increase and permanence of domestic content requirements signals that protectionism has found a place even in the North American Free Trade Agreement.

### Trade-related effects on the United States: Output and employment

Although the most famous description of NAFTA’s ultimate effect is the “sucking sound” of jobs going to Mexico, more serious attempts to gauge the effects of NAFTA exist.<sup>15</sup> These studies do not all take the same approach, and their results vary considerably.<sup>16</sup> Some studies involve static models. A few are dynamic. Some accommodate capital flows, but most do not. Others are historically based. However, the majority involve computable general equilibrium (CGE) models, are highly disaggregated, and find positive but small welfare and output effects for the United States.<sup>17</sup> After all, Mexico begins NAFTA as a small market relative to Canada, and the United States has already signed a free trade agreement with Canada.

Most CGE models assume either rigid wages and flexible employment, or flexible wages and full employment. The rigid wage models typically find small percentage gains in employment, while the flexible wage models find gains in wages. Both types, of course, show similar income gains. In a model that a little more fully accommodated characteristics of the real world—with somewhat flexible wages and less than full employment—the effect of NAFTA will probably include less employment growth than the rigid wage models, less wage growth than the full employment models, and about the same income growth as either.

Static CGE models without capital flows typically show the smallest effects, regardless of NAFTA country.<sup>18</sup> Some static CGE models incorporate increasing returns to scale.<sup>19</sup> As output grows, income grows even more. Even these show only small percentage gains in real income, real wages, and employment. The empirical importance of scale effects, as opposed to pure improvements in efficiency from greater competition, remains small (Tybout and Westbrook 1993 and Backus, Kehoe, and Kehoe 1991). Dynamic models portend larger effects on growth, especially for Mexico (Young and Romero 1991).

Two other branches of the literature are less consistently sanguine about the effects of NAFTA for the United States. The first branch, whose foremost representative is Leamer (1991), offers arguments based upon factor price equalization through trade and migration. These arguments are consistent

<sup>14</sup> Exceptions include silk and flax (Barry and Siwicki 1993, 138).

<sup>15</sup> Space precludes a systematic treatment of these studies, but more comprehensive overviews than what we offer can be found in Lustig et al. (1992) and Globerman and Walker (1993). We have provided in the references an extensive list of studies that address NAFTA’s effects on the United States.

<sup>16</sup> Although most of these studies were performed before the text of the agreement was finalized, we agree with Weintraub’s (1993a) conclusion that nothing in the agreement would substantially change the results of these studies.

<sup>17</sup> These include Hinojosa-Ojeda and Robinson (1991), Hinojosa-Ojeda and McCleery (1990), KMPG Peat Marwick (1991), Brown, Deardorff, and Stern (1991a and 1991b), and USITC (1991). See Brown (1992) for a survey.

<sup>18</sup> See Brown (1992, 35–37), Hinojosa-Ojeda and Robinson (1991 and 1992), Hinojosa-Ojeda and McCleery (1990), and Roland-Holst, Reinert, and Shiells (1992).

<sup>19</sup> Roland-Holst, Reinert and Shiells (1992) and Brown, Deardorff, and Stern (1991a and 1991b).

with the Stolper–Samuelson theorem that opening trade will decrease low-skilled wages in the United States because Mexican exports are intensive in low-skilled labor. However, Hinojosa-Ojeda and Robinson (1992) argue that the relative sizes of the U.S. and Mexican economies and NAFTA’s long phase-in period mean the Stolper–Samuelson effect will be small; it would be swamped by the other, growth-enhancing effects of the agreement.

A second branch of the literature regards NAFTA from an historical point of view. Although some of this literature (Hufbauer and Schott 1992; Weintraub 1991) offers conclusions consistent with those of the CGE models, a series of briefing papers from the Economic Policy Institute (EPI) does not.<sup>20</sup> These papers derive historical parallels, abstracting from individual industry experiences, to hypothesize about the U.S. macroeconomy. Their narratives typically assume, for example, that what has happened in the automobile industry is an accurate guide to what will happen in the U.S. macroeconomy. For the Economic Policy Institute, the results of NAFTA for the United States are negative.

An interesting artifact of the EPI papers is their argument that “free trade” over the last fifteen years has, despite U.S. employment growth during that time, been a principal cause of the movement of jobs to other countries. In fact, there is evidence to suggest that U.S. policy has been increasingly protectionist over this period, although the Economic Policy Institute authors may view the increase as too small to budge the United States from free trade. However, the authors do not discuss the empirical evidence presented by Gruben (1990a and 1990b) and Truett and Truett (1993) that jobs that went to Mexico during this period would otherwise have gone to Asia. The Economic Policy Institute authors not only dismiss the United States’ increases in employment and declining unemployment rates during this period, but they do not deal with the claim that jobs move to other sectors in an economy rather than to other countries.<sup>21</sup>

Nevertheless, arguments that picture massive movement of jobs to Mexico seemed to carry weight even after NAFTA passed. Moreover, the idea that foreign countries are taking jobs to which Americans are entitled continues to be a focal point of the larger U.S. protectionist movement.

## Sectoral effects

If most studies of the impacts of NAFTA suggest overall expansion for the United States, why did protectionists turn so much of their energy against the agreement? In a broad sense, the answer is that the opening of trade shifts resources and production from less competitive to more competitive sectors, inspiring renewed political efforts from the less competitive. According to traditional Heckscher–Ohlin–Samuelson analysis, the sectors that will prove most competitive (and therefore gain most from trade) will use the nation’s relatively more abundant factors of production relatively intensely.

Compared with most other countries, and certainly with Mexico, the United States has a relative abundance of physical capital (plants and equipment) and human capital (an educated work force). Industries that require relatively low-skilled labor or low levels of physical capital to make tradeable products will find much to dislike about NAFTA unless they can establish operations abroad.

Nevertheless, displacement of workers across sectors of the U.S. economy will likely be small in both absolute and relative terms, because the sizes of the economies and work forces of Mexico and Canada are small compared with those of the United States. Most studies suggest that U.S. sectors that lose include sugar refining, fruits and vegetables, apparel, and household appliances. Sectors that gain include chemicals, instruments, machinery and equipment, motor vehicles, instruments, and rubber and plastic. Neither the output and employment gains of the winners nor the losses of the losers appear to be large, according to most models, but losers appear to find cold comfort in such estimates.

Finally, an important reason reactive antiliberalization lobbying is typically strong—regardless of the nature and benefits of the particular trade

<sup>20</sup> See, for example, *Faux and Lee (1992)* and *Blecker and Spriggs (1992)*.

<sup>21</sup> For more detailed critiques of the Economic Policy Institute papers, see *Hinojosa-Ojeda and Robinson (1992)*, *Weintraub (1992)*, and *Gruben (1993)*.

initiative—is that it is easier for those who are likely to lose their jobs to know they are likely to lose them than for those who may gain jobs to know they would be the ones to gain them. After all, even if new jobs are created, someone else might get them.

## Services

As technological advances have increased opportunities for U.S. trade in services, the United States has intensified efforts to negotiate openings for it. Services trade negotiations demand a different focus from goods trade negotiations because service trade protectionism differs from goods trade protectionism. Domestic services providers cannot be protected by tariffs and quotas. Imports of services are not easily detected by customs officers at international borders.

Instead, services trade protectionism emphasizes laws that focus not on the product, but on the producer. Some countries outlaw foreign-owned service companies of various types and prohibit foreigners from acquiring controlling ownership in existing domestic companies. Some bestow monopolies on particular domestically owned producers. Some regulate foreign-owned companies differently than domestically owned firms of the same type. As a final complicating factor, one country's regulations for its service firms will typically differ substantially from another country's regulations for its service firms. The ideal solution is to harmonize regulations.

In many cases, NAFTA's services openings reflect less protectionism than the clauses for goods trade. NAFTA does not create full harmonization, but it moves in that direction and it particularly opens Mexico. NAFTA provides for national treatment, which means that a U.S. firm in Mexico is supposed to be treated regulatorily as if it were a Mexican firm. National treatment under NAFTA is

not de jure, but de facto. That is, foreign firms may still face different regulatory treatment than domestic firms, as long as the effect of the regulations is equivalent and does not place foreign firms at a competitive disadvantage.

The services that received the most attention in the NAFTA negotiations were finance, insurance, transportation, and telecommunications.

NAFTA does not change requirements for foreign banks' entry into the United States and Canada, but the opening of the Mexican financial system is among the agreement's most significant achievements. Because the standards for entry are tied to the size of the Mexican banking system, they will change over time. But in the context of the size of the Mexican banking system at the end of 1992, entry into Mexican banking by Canadian or U.S. firms would require the commitment of reserves and paid-up capital of between \$20 million and \$60 million. Requirements will likely go up, not down, in the future. Although this means U.S. banks may be slow to move into Mexico, their presence there will grow over time. Requirements for entry into brokerage, bonding, insurance, leasing, and warehousing are more liberal. One would expect more initial entry by U.S. specialists in these areas.<sup>22</sup>

Transportation services on both sides of the border stand to gain under NAFTA, especially in trucking. Eighty-two percent of freight in Mexico is moved by road (USITC 1991, 4–48). Mexican exports of trucking services to the United States will likely increase if border and inland infrastructure improvements continue to take place in Mexico.<sup>23</sup> The longer term implications of NAFTA include increases in U.S. trucking services as well, but NAFTA will have only a marginal effect on other transport services. Other transport services will be affected only marginally by NAFTA (USITC 1991, 4–48). Clearly, trade in goods is transport-service intensive and infrastructure development on both sides of the border will be needed.

Trade in telecommunications and related goods trade received a large boost from the privatization of Telefonos Mexicanos (TELMEX) in 1991. Basic telephone services are the main service traded between the United States and Mexico, with the United States being a net importer of these services. NAFTA should shift the balance of trade in favor of the United States in the basic services,

<sup>22</sup> For an extensive treatment, see Gruben, Welch, and Gunther (1993).

<sup>23</sup> In recent years a large share of infrastructure investment in Mexico has been private. Toll roads are a particularly commonplace example.



especially in related equipment, as the investment in this sector increases over the coming years.

### Intellectual property rights protection

Because of the importance of intellectual property protection in facilitating services trade and foreign investment, NAFTA's coverage of this topic has received much notice. Moreover, it has been argued that the provisions on patent and trade secrets offer the highest standards of protection achieved in any trade negotiations (USITC 1993, 3–7).

One of the most significant provisions of this section, and in NAFTA in general, is the codification of national treatment. This codification ensures that the intellectual property of firms from any two NAFTA countries will be legally treated in the third as if it had been developed in that country.

A second important general provision is the strict limitation on the use of compulsory patent licenses, which has affected Canada's process for patenting pharmaceutical patents.

A third important detail obligates the signatory countries to enforce intellectual property rights against infringement not only internally but also at the border. That is, NAFTA includes sanctions not only against the production of pirated products, but against their importation.

Despite these and other provisions, including those for judicial procedures to ensure enforcement, Canada, Mexico and the United States all offered strong intellectual property protection before NAFTA was signed. Indeed, NAFTA implies few significant changes in U.S. intellectual property laws and will not much change Mexican patent law, which was upgraded in 1991 to a level consistent with those of major industrial countries.<sup>24</sup>

One of the most important aspects of intellectual property protection in NAFTA is that it helps ensure the durability of Mexico's new intellectual property law. Still, differences between the Mexican, Canadian, and U.S. legal systems offer opportunities for complications.

Under Mexican law, precedent does not automatically control the implementation of law. Protection in most cases is extended to a firm or individual only if that party successfully litigates the issue. The costs of gaining effective protection are accordingly high. Under NAFTA, the effects

of such divergences in legal systems may be reduced, but there is clearly much to suggest that NAFTA's service-related clauses do not constitute harmonization.<sup>25</sup>

### Migration

From the United States' point of view, a *raison d'être* of NAFTA is the hope that it will ease pressures on migration from Mexico to the United States. Because trade openings tend to equalize real wages across countries (factor price equalization), the argument goes, incentives for cross-border migration would decline.

Results reported by the United States International Trade Commission (1991) from partial equilibrium models show such convergence, most of it from an increase in Mexican wages. Hinojosa-Ojeda and McCleery (1990) model migration, trade, and capital flows with dual labor markets (high wage and low wage) in both the United States and Mexico, and add a maquiladora sector. According to their results, NAFTA would decrease migration because wages would rise more in Mexico than in the United States.

The picture clouds when one incorporates Mexico's large and inefficient *ejido* (or collective farm) system, as do Levy and Van Wijnbergen (1992) and Hinojosa-Ojeda and Robinson (1991). Under NAFTA, U.S. exports of maize and soybeans could not only offer competition to the ejidos but could accordingly induce worker dislocation in this system. The result could involve increases in migration to the United States.

The Mexican government's recent restructuring of the *ejido* system, to facilitate infrastructure and capital goods investment through partnership or leasing agreements with business organizations, may allow more competitive operations. However, these same steps may induce some *ejido* farmers

<sup>24</sup> Mexico, however, must amend its law to reverse the burden of proving infringement of process patents, placing the burden on the accused infringer.

<sup>25</sup> See Alejandro Junco (1991). Under Mexican law, precedent is extended when favorable decisions are delivered in five consecutive cases.

to take their money and leave, even if the extra income might also motivate them to remain in Mexico instead of migrating to the United States.

The long phase-in period of NAFTA for agricultural products typical of the ejidos, however, gives the farmers more time to make their deals and their decisions before competition intensifies, which will smooth and slow the transition.

### **Beyond NAFTA: The environmental, workplace, and adjustment agreements**

In the parallel agreements and even in NAFTA itself, the United States has pushed its agenda in directions that blur the demarcation between trade issues and public policy actions that only indirectly affect trade. In some contexts, it is easy to see why this blurring could occur. For example, if a country's zealous health standards on food imports could be seen as impediments to trade, why not differences in environmental protection and workplace standards?

Workplace conditions and environmental protection have been pushed to the forefront of the NAFTA debate. During the vote on fast-track status, President Bush committed to trilateral side or parallel negotiations on the harmonization of environmental policies, labor laws, and worker retraining or other adjustment assistance. Upon assuming office, President Clinton voiced his support for NAFTA with the caveat that the side agreements be completed before the treaty would be submitted to Congress for ratification.

### **Environmental concerns**

All three NAFTA countries consider environmental problems to be important policy issues. Mexico's pollution problems, especially those in Mexico City and along the border, have become acute. In the NAFTA negotiations, a principal

environmental concern has been that loose regulations constitute an unfair trade advantage. The question, then, is what are the likely environmental effects of NAFTA?

Two common fears about NAFTA are that the consequent economic growth in all three countries, but especially Mexico, will cause more pollution and that Mexico will be a haven for polluting U.S. manufacturers. Plausible as conjectures, these issues seem less compelling in light of recent research and current Mexican policy efforts.

Grossman and Krueger (1991) statistically model the interaction of trade, growth, and pollution in a cross-section of countries. They show that, when per capita income in a country is very low, higher output (and therefore income) generates higher pollution. But beyond a per capita income of \$5,000,<sup>26</sup> pollution control becomes a normal good. Further increases in income cause pollution to fall.<sup>27</sup> Since Mexico's per capita income in 1988 was almost exactly \$5,000, Grossman and Krueger's results suggest that the increased growth in Mexico due to NAFTA will improve Mexico's environment.

The evidence likewise suggests that laxer environmental regulation was not significant in motivating U.S. firms to relocate in Mexico. Environmental abatement costs in the United States are low, averaging between 1 percent to 2.5 percent of total production costs (Grossman and Krueger 1991, 25, and Cropper and Oates 1992). Moreover, firms that relocated typically had lower abatement costs in the United States before moving than those that did not relocate (Grossman and Krueger 1991, 27). This correlation may be spurious. But if one considers that heavy industry typically both pollutes more and requires higher job skills than light industry, and that firms that move to Mexico go there for lower-skilled workers, this result seems less implausible.

Nevertheless, some U.S. firms have indeed moved to Mexico because of stepped-up environmental regulation in the United States. Some California furniture companies, for example, moved operations to Mexico after California tightened regulations on paint coatings and solvents (Grossman and Krueger 1991, 22). However, the number was small relative to the total number of furniture producers in the state of California, let alone in the rest of the United States.

<sup>26</sup> Expressed in 1985 U.S. dollars.

<sup>27</sup> Other studies reviewed by Gliberman (1993) find a similar relationship.

Some of the environmental concern stems from two inaccurate assumptions. The first is that Mexico continues to be lax in environmental regulation; the second is that NAFTA does not address environmental issues. The first assumption ignores improvements in Mexican policy over the last decade. Under the Salinas administration, the budget for the Mexican environmental authority (SEDESOL) grew from \$4 million in 1989 to about \$68 million in 1992 (Hufbauer and Schott 1993, 92). In 1993, Mexican government expenditures on environmental protection approached 1 percent of gross domestic product. The powers of Mexico's environmental authority have been expanded significantly since its creation, and the government is preparing market-based environmental reforms such as auctioning pollution rights. Moreover, the Mexican government has lately closed a number of polluting factories, most notably PEMEX's Azcatzalco refinery in Mexico City.

But not all environmental concerns are mistaken. Geographically, an important environmental issue is the U.S.–Mexico border, and with good reason. Environmental damage there is significant. Raw sewage and water problems date at least to the 1950s. With the development of the border's maquiladora plants, beginning in the 1960s, dumping of toxic chemicals has aggravated the dangers. However, the United States and Mexico have already entered into side agreements for the border. The most comprehensive is the so-called Mexican–U.S. Integrated Border Protection Plan, for which the United States has pledged \$379 million and Mexico has pledged \$466 million (Globerman 1993, 296–97). Some find the effort lacking, but the program is an important step.

NAFTA does address the environment directly. Signatories must commit to a half-dozen additional international environmental agreements, and each country agrees not to lower existing environmental protection, or health and safety standards, to attract investment. Individual countries may maintain stricter standards than NAFTA requires.

However, some of NAFTA's significant environmental components are not in NAFTA proper but in the parallel agreements. Under the dispute settlement mechanism outlined in the parallel agreement on the environment, individuals or groups in one country can file complaints

about environmental abuses in another, and representatives from each of the disputing countries will be chosen and will attempt to negotiate a settlement. If this fails, the complaint goes to a panel of experts for adjudication. A country that receives an unfavorable ruling has sixty days to enforce it. If the country fails to enforce, it may incur up to a \$20 million fine. If the government of the country fails to pay, the complaining country may level tariffs against the products of the offending industry.

It should be noted that NAFTA-related agreements differ from most trade pacts in that disputes in the latter are almost always required to involve directly trade-related issues. By contrast, according to the office of the U.S. Trade Representative,<sup>28</sup> “any environmental or natural resource issue may be addressed” by NAFTA's environmental commission. The parallel agreement offers more than the usual scope of international adjudication opportunities to those concerned about environmental abuses.

### Workplace conditions

U.S. labor organizations typically express concerns that Mexico's workplace regulations—including those related to safety and health, child labor, benefits, and hours of work—will send U.S. firms over the border. However, Mexico's workplace regulations are strong and, in some cases, tighter than those in the United States. Mexican law establishes 14 as the minimum working age. Persons ages 14 through 16 may not work more than six hours per day and are prohibited from working in occupations designated as hazardous. Minors may not work more than a forty-eight-hour week (Weintraub 1993a, 28–29). Mexican regulations on maternity leave, sick leave, and profit sharing are more generous to workers than those of the United States.

Nevertheless, legitimate concerns about enforcement remain. It is these concerns that inspired the parallel negotiations and agreement on labor. The labor commission, which serves as

<sup>28</sup> This quotation appears in Sheehan (1993).

the review body for the parallel agreement, has a broad mandate that covers worker benefits, industrial relations, and occupational health and safety.

In NAFTA's labor-related dispute settlement framework, the form of litigation itself offers particularly strong opportunities for protectionist pressures. For example, the dispute settlement process will operate under the influence of a joint advisory committee, along with evaluation committees of experts made up of representatives from labor-supported organizations. This commission is supposed to provide expert advice on regulatory matters and will have a high degree of access to commission proceedings.

### Adjustment assistance and retraining

Programs that assist and smooth relocation of displaced workers are fully consistent with the application of the theory of economic welfare to trade policy. But the creation of such programs does not depend on a trade agreement between the United States and other nations. However, not only will fiscal budgetary problems make such programs difficult to pass in the future, but similar promises of adjustment assistance were made during the 1980s but not honored.<sup>29</sup>

Conroy and Glasmeier (1992–93) argue that current policies are inadequately designed and constructed to account for the dislocations that NAFTA will bring. They suggest that the European Economic Community's approaches to funding special adjustment programs be followed. We concur that worker dislocations deserve attention. However, Sala-i-Martin and Sachs (1991) observe that the United States, at least, ensures regions against income shocks. They show that a \$1 reduction in a U.S. region's per capita personal income triggers a 34 cent decrease in federal taxes and a 6 cent increase in federal transfers. In the EEC, they note, the comparable tax reduction is only about half a cent. They argue that "the current European tax system has a long way to go before it reaches the 34 cents of the U.S. federal government."

### Whither NAFTA?

NAFTA and the parallel negotiations have been described as a move toward greater economic integration, and many of their traits are consistent with it. They offer a framework for harmonizing much more than just directly trade-related rules and regulation.

But in the context of recent U.S. trade history, they may also be seen as part of a dialectical progression in which shifting protectionist and free-trade interests compete to synthesize a new trade policy. U.S. manufacturers' protectionist lobbying diminishes, as labor union pressures increase. Seeking new allies to replace some once-protectionist industrialists, labor organizations associate themselves with environmentalists. Meanwhile, some U.S. manufacturers profess to find new forms of unfairness among their competitors abroad and so do some agriculturalists. In Mexico, policy innovations and new interindustry and intergroup conflicts materialize.

As a result of these conflicting and changing pressures, NAFTA liberalizes trade on some fronts, particularly in services, and increases protectionism on others, as in the rules for increased domestic content in autos and textiles.

Despite NAFTA's soft spots, the agreement offers an important opportunity not only to increase trade in North America, but to signal U.S. commitment to free trade in general—and to free trade in particular with respect to intellectual property rights protection, trade in services, and trade-related aspects of foreign investment.

However, in NAFTA such increased integration as occurs is largely a side effect of a dialectic that continues. At the same time the Clinton administration pushed to open the United States to freer trade with Mexico and Canada, it entered into new agreements with Mexico to restrict the effects of openings in some types of agriculturally related trade, including sugar and fruit juice. Meanwhile, while NAFTA opens trade, NAFTA-related agreements open broader opportunities for protectionists to reduce trade through appeals against environmental and workplace enforcement in areas with little direct effect on the international exchange of goods and services. NAFTA opens trade, but the dialectic goes on.

<sup>29</sup> Smith (1990) and Faux and Lee (1992).

## References

- AFL–CIO (1992), *Policy Recommendations for 1992*.
- Backus, David K., Patrick J. Kehoe, and Timothy J. Kehoe (1991), “In Search of Scale Effects in Trade and Growth,” Federal Reserve Bank of Minneapolis Research Department Working Paper no. 451, February.
- Ballew, Paul, and Robert Schnorbus (1992), “NAFTA and the Auto Industry: Boon or Bane?” Federal Reserve Bank of Chicago *Chicago Fed Letter*, no. 64, December.
- Barry, Eric, and Elizabeth Siwicki (1993), “NAFTA: The Textile and Apparel Sector,” in *Assessing NAFTA: A Trinational Analysis*, ed. Steven Gliberman and Michael Walker (Vancouver: The Fraser Institute).
- Bayoumi, Tamar, and Barry Eichengreen (1992), “Monetary and Exchange Rate Arrangements for NAFTA,” mimeo, University of California at Berkeley.
- Berry, Steven, Vittorio Grilli, and Florencio López-de-Silanes (1992), “The Automobile Industry and the Mexico–U.S. Free Trade Agreement,” NBER Working Paper Series, no. 4152 (Cambridge, Mass., National Bureau of Economic Research, August).
- Bhagwati, Jagdish (1991), *The World Trading System at Risk* (Princeton, N.J.: University of Princeton Press).
- (1989), “Is Free Trade Passé After All?” *Weltwirtschaftliches Archiv*, vol. 125, no. 1.
- Blecker, Robert A., and William E. Spriggs (1992), “Manufacturing Employment in North America: Where the Jobs Have Gone,” Briefing Paper, Economic Policy Institute.
- Bovard, James (1992), “The United States’ Protectionist Antidumping and Countervailing Subsidy Laws,” paper presented at “Liberty in the Americas: Free Trade and Beyond,” a conference sponsored by the Cato Institute and the Centro de Investigaciones Sobre la Libre Empresa, Mexico City.
- Brown, Drusilla K. (1992), “The Impact of a North American Free Trade Area: Applied General Equilibrium Models,” in *North American Free Trade: Assessing the Impact*, ed. Nora Lustig, Barry P. Bosworth, and Robert Z. Lawrence (Washington, D.C.: The Brookings Institution).
- , Alan V. Deardorff, and Robert M. Stern (1991a), “A North American Free Trade Agreement: Analytical Issues and A Computational Assessment,” mimeo, University of Michigan, October.
- (1991b), “Some Estimates of a North American Free Trade Agreement,” mimeo, University of Michigan, October.
- Chant, John F. (1993): “The Financial Sector in NAFTA: Two Plus One Equals Restructuring,” in *Assessing NAFTA: A Trinational Analysis*, ed. Steven Gliberman and Michael Walker (Vancouver: The Fraser Institute).
- Conroy, Michael E., and Amy K. Glasmeier (1992–93), “Unprecedented Disparities, Unparalleled Adjustment Needs: Winners and Losers on the NAFTA ‘Fast Track,’” *Journal of Interamerican Studies and World Affairs* Winter, 1–37.
- Cropper, Maureen L., and Wallace Oates (1992), “Environmental Economics: A Survey,” *Journal of Economic Literature* 30 (June): 675–740.
- Faux, Jeff, and Thea Lee (1992), “The Effect of George Bush’s NAFTA on American Workers: Ladder Up or Ladder Down?” Briefing Paper, Economic Policy Institute.
- Federal Reserve Bank of Dallas (1991), *North American Free Trade: Proceedings from a Conference*, Dallas, June 14.
- Gilbreath, Jan (1993), “Fish or Foul?” *Hemisfile*, November/December, 10–11.

- Globerman, Steven (1993), "Trade Liberalization and the Environment," in *Assessing NAFTA: A Trinational Analysis*, ed. Steven Globerman and Michael Walker (Vancouver: The Fraser Institute).
- Gonzalez, Jorge G., and Alejandro Velez (1992), "Intra-Industry Trade Between the U.S. and the Major Latin American Countries: Measurement and Implications for the Initiative for the Americas," paper presented at the meetings of the Latin American Studies Association, Los Angeles.
- Grossman, Gene M., and Alan B. Krueger (1991), "Environmental Impacts of a North American Free Trade Agreement," NBER Working Paper Series, no. 3914 (Cambridge, Mass., National Bureau of Economic Research, November).
- Gruben, William C. (1993), "Free Trade, Globalization, and U.S. Labor: What Are the Long Run Dynamics?" in *The North American Free Trade Agreement: Labor, Industry and Government Perspectives*, ed. Mario F. Bognanno and Kathryn J. Ready (Westport, Conn.: Greenwood).
- (1992), "North American Free Trade: Opportunities and Pitfalls," *Contemporary Policy Issues* 10 (October): 1–10.
- (1990a), "Mexican Maquiladora Growth: Does It Cost U.S. Jobs?" Federal Reserve Bank of Dallas *Economic Review*, January, 15–29.
- (1990b), "Do Maquiladoras Take American Jobs? Some Tentative Econometric Results" *Journal of Borderland Studies*, Spring, 31–46.
- , John H. Welch, and Jeffrey W. Gunther (1993), "U.S. Banks, Competition, and the Mexican Banking System: How Much Will NAFTA Matter?" Federal Reserve Bank of Dallas *Financial Industry Studies*, October.
- Grunwald, Joseph (1991), "Opportunity Missed: Mexico and Maquiladoras," *The Brookings Review*, Winter.
- Hanson, Gordon (1992a), "External Economies, Vertical Integration, and Trade: Theory and Evidence from Mexico," mimeo, University of Texas at Austin.
- (1992b), "Agglomeration, Dispersion, and the Pioneer Firm: Theory and Evidence from Mexico," mimeo, University of Texas at Austin.
- Heston, Alan, and Robert Summers (1991), "The Penn World Table (Mark 5): An Expanded Set of International Comparisons," *Quarterly Journal of Economics*, vol. 106, 327–68.
- Hinojosa-Ojeda, Raul, and Robert K. McCleery (1990), "U.S.–Mexico Interdependence, Social Pacts, and Policy Alternatives: A Computable General Equilibrium Approach," mimeo, University of California at Berkeley, October.
- , and Sherman Robinson (1992), "Labor Issues in a North American Free Trade Area," in *North American Free Trade: Assessing the Impact*, ed. Nora Lustig, Barry P. Bosworth, and Robert Z. Lawrence (Washington, D.C.: The Brookings Institution).
- , and Sherman Robinson (1991), "Alternative Scenarios of U.S. Mexico Integration: A Computable General Equilibrium Approach," mimeo, University of California at Berkeley, October.
- Hirsch, Seev (1989), "Services and Service Intensity in International Trade," *Weltwirtschaftliches Archiv*, vol. 125, no. 1.
- Hufbauer, Gary C., and Jeffrey J. Schott (1992), *North American Free Trade: Issues and Recommendations* (Washington D.C.: Institute for International Economics).
- (1993), *NAFTA: An Assessment* (Washington D.C.: Institute for International Economics).
- Hunter, Linda, James R. Markusen, and Thomas F. Rutherford (1991a): "Trade Liberalization in a Multinational-Dominated Industry: A Theoretic-

- cal and Applied General Equilibrium Analysis," mimeo, University of Colorado.
- (1991b), "Trade Liberalization in a Multinational-Dominated Industry: A Theoretical and Applied General Equilibrium Analysis," in *North American Free Trade: Proceedings from a Conference* Federal Dallas, June 14.
- Johnson, Jon R. (1993), "NAFTA and the Trade in Automotive Goods," in *Assessing NAFTA: A Trinational Analysis*, ed. Steven Gliberman and Michael Walker (Vancouver: The Fraser Institute).
- Josling, Tim (1993), "NAFTA and Agriculture: A Review of the Economic Impacts," in *North American Free Trade: Assessing the Impact*, ed. Nora Lustig, Barry P. Bosworth, and Robert Z. Lawrence (Washington, D.C.: The Brookings Institution).
- Junco, Alejandro (1991), "The Case for an Internal Mexican Free Trade Agreement," *Wall Street Journal*, March 22.
- Kane, Edward (1988), "Interaction of Financial and Regulatory Innovation," *American Economic Review*, May, 328–34.
- Kehoe, Timothy (1992), "Assessing the Economic Impact of North American Free Trade," Center for Economic Research, Department of Economics, University of Minnesota, Discussion Paper no. 265, October.
- KMPG Peat Marwick (1991), *The Effects of a Free Trade Agreement Between the U.S. and Mexico: Executive Summary* (Washington, D.C.: The Brookings Institution).
- Krugman, Paul (1989), "Is Bilateralism Bad?" NBER Working Paper Series, no. 2972 (Cambridge, Mass.: National Bureau of Economic Research).
- Leamer, Edward E. (1992), "Wage Effects of a U.S.–Mexican Free Trade Agreement," NBER Working Paper Series, no. 3991 (Cambridge, Mass.: National Bureau of Economic Research, February).
- Levy, Santiago, and Sweder Van Wijnbergen (1992), "Maize and the Free Trade Agreement Between Mexico and the United States," *The World Bank Economic Review* no. 3, 481–502.
- López-de-Silanes, Florencio, James R. Markusen, and Thomas F. Rutherford (1992), "The Auto Industry and the North American Free Trade Agreement: Employment, Production, and Welfare Effects," mimeo, Harvard University.
- Lustig, Nora (1991), "Bordering on Agreement," discussion paper, The Brookings Institution, February 25.
- , Barry P. Bosworth, and Robert Z. Lawrence (1992), *North American Free Trade: Assessing the Impact* (Washington, D.C.: The Brookings Institution).
- Magee, Stephen P. (1990), "The Decline of Lobbying in the U.S. Over Trade Policy, 1950–1986," mimeo, University of Texas at Austin.
- McLeod, Darryl , and John H. Welch (1991), "Free Trade and the Peso," mimeo, Federal Reserve Bank of Dallas.
- Mody, Ashoka (1990), "New International Environment for Intellectual Property Rights," in *Intellectual Property Rights in Science, Technology, and Economic Performance: International Comparisons*, ed. Francis W. Rushing and Carole Ganz Brown, (Boulder, Colo.: Westview Press). 203–39.
- Morici, Peter (1993), "NAFTA Rules of Origin and Automotive Content Requirements," in *Assessing NAFTA: A Trinational Analysis*, ed. Steven Gliberman and Michael Walker (Vancouver: The Fraser Institute).
- Nam, Chong-Hyun (1987), "Export Promoting Subsidies, Countervailing Threats, and the General Agreement on Tariffs and Trade," *The World Bank Economic Review*, September.
- Pastor, Robert A. (1992), "NAFTA as the Center of an Integration Process: The Nontrade Issues," in *North American Free Trade: Assessing the*

- Impact*, ed. Nora Lustig, Barry P. Bosworth, and Robert Z. Lawrence (Washington, D.C.: The Brookings Institution), 176–98.
- Primo Braga, Carlos A. (1992), “NAFTA and the Rest of the World,” in *North American Free Trade: Assessing the Impact*, ed. Nora Lustig, Barry P. Bosworth, and Robert Z. Lawrence (Washington, D.C.: The Brookings Institution), 210–34.
- (1991), “The North–South Debate on Intellectual Property Rights,” in *Global Rivalry and Intellectual Property: Developing Canadian Strategies* (Ottawa: The Institute for Research on Public Policy).
- (1990), “U.S. Policies and Prospects for Latin American Economic Integration,” in *United States Policies and the Latin American Economies*, ed. Werner Baer and Donald V. Coes (New York: Praeger).
- (1989), “U.S.–Latin American Trade: Challenges for the 1990s,” *Economic Impact*, no. 2.
- Primo Braga, Carlos A., Raed Safadi, and Alexander Yeats (1993), “Regional Integration in the Western Hemisphere: ‘Deja Vu All Over Again,’ ” mimeo, The World Bank.
- Roland-Holst, David, Kenneth A. Reinert, and Clinton R. Shiells (1992), “North American Free Trade, Liberalization, and the Role of Nontariff Barriers,” mimeo, Mills College, April.
- Sali-i-Martin, Xavier, and Jeffrey Sachs (1991), “Fiscal Federalism and Optimum Currency Areas: Evidence for Europe from the United States,” NBER Working Paper Series, no. 3855 (Cambridge, Mass.: National Bureau of Economic Research, October).
- Sheehan, James M. (1993), “NAFTA—Free Trade in Name Only,” *Wall Street Journal*, September 9.
- Smith, Russell E. (1990), “United States Policies and the Labor Sector in Latin America,” in *United States Policies and the Latin American Economies*, ed. Werner Baer and Donald V. Coes (New York: Praeger).
- Smith, Wesley R. (1992), “Protecting the Environment in North America with Free Trade,” *The Backgrounder*, no. 889, The Heritage Foundation.
- Truett, Lila J., and Dale B. Truett (1993), “Maquiladora Response to U.S. and Asian Relative Wage Rate Changes,” *Contemporary Policy Issues* 11 (January): 18–28.
- Tybout, James , and M. Daniel Westbrook (1993), “Trade Liberalization and the Dimensions of Efficiency Change in Mexican Manufacturing Industries,” Working Paper no. 92–03, Georgetown University.
- U.S. International Trade Commission (1993), *Potential Impact on the U.S. Economy and Selected Industries of the North American Free-Trade Agreement*, USITC, January.
- (1991), *Review of Trade and Investment Liberalization by Mexico and Prospects for Future United States Mexican Relations: Phase III*, USITC, February.
- (1990a), *Review of Trade and Investment Liberalization by Mexico and Prospects for Future United States Mexican Relations: Phase I*, USITC, April.
- (1990b), *Review of Trade and Investment Liberalization by Mexico and Prospects for Future United States Mexican Relations: Phase II*, USITC, October.
- Weintraub, Sidney (1993a), “The North American Free Trade Agreement as Negotiated: A U.S. Perspective,” in *Assessing NAFTA: A Trilateral Analysis*, ed. Steven Gliberman and Michael Walker (Vancouver: The Fraser Institute).
- (1993b), “NAFTA: What It’s All About,” paper presented at the Federal Reserve Bank of Dallas, Fraser Institute, and LBJ School, University of Texas, conference on “NAFTA:





- Exploring the Possibilities,” San Antonio, April 27.
- (1992), “Modeling the Industrial Effects of NAFTA, in *North American Free Trade: Assessing the Impact*, ed. Nora Lustig, Barry P. Bosworth, and Robert Z. Lawrence (Washington, D.C.: The Brookings Institution), 109–33.
- (1991), “Preliminary Results: The Impact of a Free Trade Agreement with Mexico on Texas,” in Federal Reserve Bank of Dallas.
- (1990), “The New U.S. Economic Initiative Toward Latin America,” mimeo, University of Texas at Austin, November.
- Welch, John H. (1991), “A Preliminary Survey of Issues Surrounding a U.S.–Mexico Free Trade Agreement,” mimeo, Federal Reserve Bank of Dallas, March.
- (1993), “The New Face of Latin America: Financial Flows, Markets, and Institutions in the 1990s,” *Journal of Latin American Studies*, vol. 25, 1–24.
- Young, Leslie, and José Romero (1991), “A Dynamic Dual Model of the Free Trade Agreement,” in Federal Reserve Bank of Dallas.

