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Commentary

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The NAFTA Papers

The NAFTA's Automotive Provisions:

The Next Stage of Managed Trade

by

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Trade and investment in the North American automotive industry have been managed by governments for close to three decades — through the 1965 Canada-US auto pact, the 1989 Canada-US Free Trade Agreement, US Tariff Items 806 and 807, and the Mexican Auto Decrees — in a manner that accommodates their own economic interests and those of their major producers.

The positions taken by the various industry stakeholders in the North American Free Trade Agreement (NAFTA) negotiations reflected both the preoccupation of the Big Three auto makers with the challenge posed by their Japanese competitors and their perception that the NAFTA talks could be used to protect North American-owned — that is, US — auto firms from Japanese competition. Overcapacity and the costs of adaptation to rapid technological change, however, will be as important as the NAFTA provisions in determining future North American auto investment and production patterns.

The NAFTA provides benefits to Canadian producers by opening the Mexican market, but those benefits may not be large, given the limited extent of Canada-Mexico trade. The NAFTA's rules of origin and its elimination of the duty-drawback and duty-remission programs may reduce the incentive for foreign firms to locate new investments in Canada. Although recent performance in the Canadian auto sector has been impressive, and Canada's current share of North American production and employment well exceeds auto pact safeguard levels, retention of that share will depend on the continuing cost competitiveness of the Canadian industry.

Main Findings of the Commentary

- The proposed North American Free Trade Agreement (NAFTA) will structure automotive investment and trade in North America into the twenty-first century. Intracontinental trade and investment flows will be freer after the NAFTA is implemented, but they will still be managed, particularly during the NAFTA's phase-in period, when the Big Three North American producers will have preferred status over the transplants.
- The NAFTA will enhance the ability of North American producers to access the fast-growing Mexican market, which is seen as helping these producers deal with the problem of global overcapacity.
- The Canadian auto industry is now relatively efficient by world standards, and current production and employment in Canada well exceed the safeguard levels set by the 1965 Canada-US auto pact. While labor costs favor assembly in Mexico, other costs — such as shipping, inventory, or parts — do not. Some of Canada's labor cost advantages *vis-à-vis* US assembly plants could disappear, however, if the United States introduces a comprehensive health care program.
- To remain competitive, Canadian plants must continue to adopt best-practice technology, upgrade their facilities, and retrain their workers.
- Canada did not meet all of its negotiating objectives with respect to the automobile sector in the NAFTA negotiations. While the auto pact was retained and the rules of origin made more precise, the North American content requirement is now higher than the 50 percent sought by Canada, and Toyota and Honda plants in Canada will not be able to export to Mexico during the transition period.
- The principal beneficiaries of the opening of the Mexican market are likely to be US auto multinationals. Canadian auto-parts firms will benefit to the extent that they may increase exports to Mexico or invest in the Mexican auto industry.
- The Canadian duty-remission program has been the major regulatory incentive to meet the auto pact's safeguards. With Canadian imports from the United States and Mexico entering duty free under the NAFTA, this incentive will remain for auto pact members, but only with respect to imports from non-NAFTA countries.
- Faced with the impending elimination of existing duty-drawback and duty-remission programs that apply to them, Asian transplants in Canada — especially where imported parts from non-NAFTA countries represent a large share of their total production costs — may relocate processing functions from Canada to the United States, pressure the Canadian government to reduce its tariff to the level of the US tariff, or source more parts in North America.
- The real challenge for Canadian parts producers is not so much Mexico as the United States. Companies planning new investments in North America may well be drawn to the largest market, since their location there will render moot the NAFTA content provisions — unless the car is made for export to either Canada or Mexico. This and other factors — such as pressures stemming from Japan-US trade tensions and state subsidies — may contribute to a diminution of Canada's share in North American component production.

The negotiations relating to the automotive provisions in the North American Free Trade Agreement (NAFTA) were difficult. Given that the auto sector is critical to the economies of all three NAFTA signatories and that it was among the sectors hardest hit by the recent recession, this is not surprising. Excess capacity in the industry and significant market penetration in Canada and the United States by foreign producers have contributed to increased competition and a heightened struggle among firms for market share. The NAFTA talks pertaining to the auto sector centered on the protection of market access and the continued management of auto trade. Industry stakeholders advocated provisions that would strengthen their individual competitive positions as the industry continued to integrate along continental lines. As a result of the NAFTA, the Mexican market will be opened to Canadian and US auto firms, and the two classes of auto producers established under the Canada-US Free Trade Agreement (FTA) will be extended to include producers in Mexico during the phase-in period.

Production and trade in the automotive sector within North America have been shaped over the years by a variety of government policies, some national and some bilateral.[1] The NAFTA, signed by the governments of Canada, the United States, and Mexico in December 1992, is the most recent — and the first trilateral — agreement affecting this sector, one that will structure automotive investment and trade in North America into the twenty-first century.

This *Commentary* analyzes the automotive provisions of the NAFTA, suggests how they differ from those of the FTA, and speculates on their implications for the Canadian auto industry. Overall, we argue that trade and investment in this industry have been managed by governments for nearly three decades in a manner that accommodates their own economic interests and those of their major producers.

To place the NAFTA in its historical context, we briefly review the four state policies that currently structure trade and investment in the auto industry. Our review illustrates the cumulative character of each subsequent agreement or policy and shows how the previous accords have influenced the NAFTA. We then review the positions taken in the NAFTA talks by the various industry stakeholders, arguing that these positions reflect both the preoccupation of the Big Three auto makers (Chrysler, Ford, and General Motors) with the challenge posed by their Japanese competitors and their perception that the NAFTA negotiations could be used to protect North American-owned — that is, US — auto firms from Japanese competition. The *Commentary* includes brief summaries of the sections of the NAFTA that affect the auto sector, and concludes with some comments on the possible impact of the NAFTA on the Canadian auto sector.

Essentially, the automotive provisions of the NAFTA facilitate the development of a continentally integrated North American auto industry, although the route to that integrated market gives some industry players preferred status. There are six key components to the auto provisions:

- tariffs on automotive products are to be eliminated by January 1, 2003;[2]
- the Canada-US auto pact and Canada's duty-remission orders under that pact are to remain in effect;
- rules of origin for the automotive sector are to rise over the transition period to 62.5 percent for autos, light trucks, and their engines and transmissions, and to 60 percent for other vehicles and parts;
- Mexico's Auto Decrees and related restrictions — such as domestic content and trade-balancing requirements as well as restrictions on new vehicle imports — are to be phased out;
- as a result of changes to the US Corporate Average Fuel Economy (CAFE) regulations, Mexican-produced vehicles are to be treated as "domestic"; and
- restrictions on the importation of used vehicles are to be eliminated after 25 years.

To place these provisions and the debate over them in context, some discussion of the rules that currently structure trade and investment in the auto industry is necessary. As the most recent negotiated policy statement on the industry, the NAFTA auto provisions reflect lessons learned from earlier regulatory efforts.

A Quartet of Pre-NAFTA Policies

Four policies are primarily responsible for the way trade, production, and investment have been structured in Canada, the United States, and Mexico since the 1960s: the 1965 Canada-US auto pact,[3] the 1989 Canada-US Free Trade Agreement (FTA), the Mexican Automotive Decrees, and US Tariff Items 806 and 807 (now 9802.00.60 and 9802.00.80). As a result of these policies, trade in autos, particularly by the Big Three firms, is already largely integrated across the three countries.

Finished vehicles and parts are a major component of merchandise trade in North America. Almost half of all Canadian exports to the United States are in the machinery and transport equipment category, as are two-thirds of US exports to Canada. Motor vehicles and parts constitute the bulk of these flows. Mexican exports to the United States are also dominated by cars and auto parts; these goods represent 16.5 percent of US manufactured exports to Mexico.[4] Canada's exports to Mexico, which are rather small, are heavily weighted toward auto parts. Mexican exports to Canada, although larger, are dominated by auto parts and engines.

The 1965 Canada-US Auto Pact

The intracontinental composition of auto trade reflects the division of labor that resulted from the bilateral restructuring of production following the signing of the Canada-US auto pact in 1965.[5] The pact was designed to promote the continental rationalization of the auto industry. ("Continental" referred, at the time, only to Canada and the United States.) Under what was, in effect, a sectoral free trade agreement for producers, auto production in the two countries was integrated as the Big Three reorganized their operations to facilitate longer production runs, reap the benefits of specialization and economies of scale, and ensure more profitable operations.

As Jon Johnson explains,[6] the pact was asymmetric in terms of the obligations it imposed on the two parties and the effects it had on each, reflecting the different purposes the signatories attached to the arrangement: the United States wanted sectoral free trade, whereas Canada sought to protect, and to make more efficient, its domestic parts production and vehicle assembly. Rationalization was important, but so was keeping production in Canada. On both sides of the border, assemblers and components manufacturers could ship vehicles and parts across the border duty free as long as they met certain requirements; however, the requirements imposed different obligations on the two parties.

The sole criterion for the duty-free entry of goods into the United States was origin. Automobiles and original equipment manufactured (OEM) parts moving from Canada to the United States enjoyed duty-free treatment as long as the goods contained at least 50 percent North American — that is, US or Canadian — content. Only "bona fide motor-vehicle manufacturers in the United States" could import such goods duty free;[7] consumers and other firms could not. Imports from Canada alone, and not from other countries, were eligible for US duty-free treatment under the auto pact.

From the Canadian perspective, the key consideration was not origin but certain features of the importing vehicle assembler's performance in Canada. Vehicles and auto parts from any country, including the United States, could enter Canada duty free as long as they were imported by a qualifying Canadian vehicle manufacturer. To be so considered, an assembler had to be operating in Canada during the auto pact base year (August 1, 1963 to July 31, 1964) and had to adhere to specific safeguards requiring Canadian production and assembly.[8] Based on these criteria, four auto firms qualified: the Canadian subsidiaries of the Big Three, and Volvo.[9] Qualifying firms could import vehicles and OEM parts from anywhere in the world duty free as long as they met the Canadian safeguards — a feature that became an important motivation for auto pact firms to continue to meet their Canadian safeguard commitments after the FTA was put in place. Subsequently, the Canadian government assigned company-specific duty waivers to any firm that could meet performance requirements roughly similar to the safeguards. American Motors and CAMI (a Suzuki-General Motors joint venture) both qualified as auto pact firms in this manner.

Over the years, the Canadian safeguards, which allowed Canada to protect production located in Canada — in contrast to the US rules of origin, which protected production in either country — became the touchstone of Canadian government auto policy.[10] The safeguards became an irritant between Canada and the United States almost immediately because US officials saw them as transitional measures whereas Canadian officials treated them as permanent. As long as the rebated duty was on imports from the United States, however, US firms and government officials had little reason to act on their complaints since Canadian duty remissions created jobs and encouraged exports in the US parts sector.

Once Asian auto firms began to assemble vehicles in Canada for export to the United States in the mid-1980s, the situation changed. Toyota, Honda, Suzuki, and Hyundai built assembly operations in Canada, although very few parts producers located here. Canadian federal and provincial governments worked hard to secure this Asian investment, touting the ability to export duty free to the United States — provided the North American content requirements were met — as a major attraction of a Canadian location. Each of these firms was granted duty rebates, based on the assumption that all of them would eventually achieve auto pact status (which did not occur).

The transplants could apply for three different types of tariff rebates. The first, production-based duty-remission orders, permitted an auto firm establishing an assembly plant in Canada to import automotive products duty free, in quantities determined by the company's progress in qualifying for auto pact status. Second, the federal government introduced export-based duty-remission orders, which permitted firms to import automotive goods based on their export of parts from Canada — that is, importers could earn a dollar's worth of duty-free imports for each dollar of Canadian value added in their exports. Third, Canada offered a general export duty-drawback program, under which the government remitted the duty paid on materials and components imported for use in products that would subsequently be exported.[11]

The duty-drawback and duty-remission programs succeeded in attracting Japanese investment to Canada. However, the Asian transplants — as the North American auto plants of Asian parent firms are known — tended to import from their Asian parents and affiliates, rather than from US firms. Thus, the programs not only encouraged cheaper Japanese exports to the US market via Canada,[12] they also benefited Japanese rather than US parts producers — a double affront in US eyes. Lastly, transplant production was seen as contributing to excess capacity in North America.[13] For all these reasons, the duty rebates were contentious. Ron Wonnacott has argued that, in the absence of the FTA negotiations, the Americans would eventually have become so incensed with these programs that the survival of the auto pact might have been at risk.[14]

The 1989 Canada-US FTA

The chapter of the Canada-US FTA pertaining to the auto industry (Chapter 10) builds on, at the same time that it addresses, the bilateral tensions generated by the auto pact.[15] Under the FTA, Canadian tariffs on automotive goods imported from the United States are to be phased out over the 1989–98 period. Thus, independent of the auto pact, automotive exports from the United States will enter Canada duty free starting in 1998. As before, bona fide vehicle manufacturers in the United States can continue to import vehicles and OEM parts from Canada free of US duty as long as these items meet a rule-of-origin test.

The auto pact remains in place for the Big Three producers and Volvo, although the elimination of duties on all goods by 1998 will mean that origin, rather than meeting Canadian safeguard requirements, will determine whether or not a good enters Canada duty free. The incentive to comply with the safeguards, however, is still strong: by doing so, a firm remains a "qualifying" producer in Canada, and thereby retains the right to import components and vehicles into Canada duty free from third countries.[16]

New firms can be granted auto pact status only if they qualified for it by the 1989 date of implementation of the FTA. The only assembler to meet this deadline was General Motors' CAMI joint venture with Suzuki — which qualified in 1988. None of the Japanese transplants qualified. As a result, the auto industry in Canada now contains two "classes" of producers: those with auto pact status and those without it.[17]

The FTA duty-remission schemes for non-auto pact producers, which were instrumental in luring the Asian transplants to Canada, will be phased out by 1996.[18]

Chapter 3 of the FTA establishes new rules of origin for trade in automotive goods: vehicles can be imported duty free into Canada or the United States only if 50 percent of their export value is composed of costs incurred in either of the two countries. Eligible costs are defined in terms of the value of materials originating in either country plus the direct costs of assembling the product in the exporting country. Each component of a vehicle is put to the rule-of-origin test. If it passes, its entire price is designated as "originating" for purposes of counting the component at the assembly stage. If the component fails the test, its entire price is treated as "nonoriginating" — that is, not originating in either Canada or the United States. As a result of this "zero or nothing" method (also known as "rollup"), an imported good will be counted as domestic if the majority of its parts meet the applicable test.[19]

The FTA direct-cost provision excludes items such as overhead and promotional costs, which were permitted in the calculation of North American content under the auto pact. Although it is difficult to make comparisons because the methods of calculation differ, the foreword to Chapter 10 of the FTA, "Trade in Automotive Products," suggests that the FTA content rule of 50 percent is the equivalent of 70 percent North American content under the auto pact.[20] The rationale for the change was the pressure it would place on transplant assemblers to source components in North America, thereby "giving Canadian parts manufacturers increased opportunities."[21]

The application of the FTA rules of origin is technical[22] and has not been without controversy. The US Customs audits of Honda Civics in the early 1990s centered on whether the vehicles contained sufficient North American content to qualify for duty-free entry into the United States. At issue here was the application of the rollup provision, in this instance, to the Civic's engine. As a result of the audit, Honda was required to pay the US duty of 2.5 percent on its vehicle exports to the United States.[23] The difficulties that surrounded the Honda case and other instances of conflicting interpretations of the FTA rules of origin influenced the formulation of Canada's negotiating stance in the NAFTA talks.

In short, the auto provisions of the FTA retained the auto pact safeguards, which the Canadian government considered critical, but changed the rules under which automotive products can enter the United States. With the FTA, a clear distinction between the Big Three and the transplant producers was introduced, and the agreement itself was clearly meant to protect North American-owned firms. This protective element reappears in the NAFTA.

The Mexican Auto Decrees

In Mexico, as in Canada, the auto industry is divided between politically strong, domestically owned parts producers and US, Japanese, and German-owned vehicle assemblers. Although Volkswagen and Nissan export some of their Mexican-produced cars to the United States and Canada, the major vehicle exporters are the Big Three.[24] The Mexican auto industry is segmented. The domestic segment, located primarily around Mexico City, resembles Canada's domestic industry prior to the 1965 auto pact: it consists of small, inefficient plants with excessive product variety and too-short production runs, supplying the small, highly protected, domestic market. The other segment, located primarily on the US-Mexican border, consists of the Maquiladora factories, which import parts for assembly and export — mostly to the United States. The least efficient group comprises the domestically owned parts producers, which have been protected for many years by the Auto Decrees.

Mexico's various Automotive Decrees constitute the third set of state policies that have shaped auto investment and trade in North America. The auto industry was one of the major agents in Mexico's industrialization. Beginning in the early 1960s, Mexico issued a series of Auto Decrees designed to encourage domestic production, Mexican ownership of parts producers, and sourcing of parts by foreign auto makers. The 1962 Decree, which banned vehicle imports and set 60 percent local content rules for vehicles and parts made in Mexico, was clearly a policy of import substitution. The Decrees passed in 1969, 1972, and 1977 addressed the growing trade deficit in the auto sector by insisting that firms export more and achieve a trade balance within their own individual operations. The 1983 Decree encouraged industry rationalization by restricting the number of models each assembler could produce. Subsequent to the 1983 Decree, the auto-producing multinational enterprises built new factories to produce engines for export to the United States.[25]

The 1989 Automotive Decree (effective November 1, 1990) reflects the Mexican government's deliberate strategy of export-led growth and its conscious attempt to integrate Mexico into the world economy, a direction on which it had embarked in the latter half of the 1980s. Although this decree substantially liberalizes trade and opens the Mexican auto parts market to foreign investment, it nonetheless retains a number of strictures to protect the domestic auto-parts industry. The Decree reduces local content requirements for both assemblers (from 60 percent to 36 percent) and parts producers (from 60 percent to 30 percent) and relaxes restrictions on the importation of finished vehicles. Auto firms with Mexican production capacity are now permitted to import cars they produce elsewhere to augment their Mexican assembly,[26] as long as they maintain positive trade balances and extended trade balances — for each dollar's worth of imports, the assemblers had to export $2.50 in 1991 and $2.00 in 1992 and 1993.[27] In addition, the decree retains existing limitations (40 percent) on the foreign ownership of suppliers serving the Mexican market; however, the extent of foreign ownership of parts plants that produce only for export is to be unrestricted. Mexican auto parts firms have to maintain their own level of local content at 30 percent.[28] The Auto Decrees have worked to protect the domestic producers from import competition, and, as a result, this segment of the industry is relatively inefficient by North American standards.

The Mexican Maquiladora Program and US Tariff Items 806 and 807

Another important Mexican policy that helped structure the auto sector was the Maquiladora program, introduced in 1965 as part of Mexico's Border Industrialization Program. Maquiladora plants are permitted to import machinery and materials duty free for use in goods produced for export. The program functioned as a duty-drawback scheme for imports from anywhere in the world that came into Mexican border plants for processing and re-export. This program, coupled with US Tariff Items 806 and 807, under which US duties were levied on the value of imports into the United States net of the value of any US-made components, helped integrate Mexican border plants into the sourcing strategies of the Big Three. Starting in the early 1980s, the Big Three began to shift production of labor-intensive components, such as wiring harnesses, windshield wipers, and radios, as well as engines, to Mexico.

The Maquiladora plants built in the 1980s are, in some cases, producing at world-class levels of efficiency.

Pre-NAFTA Policies: A Final Word

We have now reviewed the four sets of policies that have structured the auto industry in North America — the auto pact, the Canada-US FTA, the Mexican Auto Decrees, and US Tariff Items 806 and 807 — and demonstrated the links between the first two and, subsequently, between the second two. It is interesting to note that there are some similarities between the 1989 Mexican Auto Decree and the auto pact: although the former is oriented more to exports,[29] both policies are designed to manage trade with the goal of ensuring the survival and health of the local auto industry. Each of the two policies, in concert with changing strategies and technologies of production, has contributed to the evolution of an increasingly integrated North American industry, and each has helped to structure perceived positions of advantage and disadvantage on the part of the major industry stakeholders.

We now turn to a discussion of the issues that the three governments saw as important in negotiating the auto sections of the North American Free Trade Agreement, noting in particular the ones that arose from a desire to change existing auto policies.

Bargaining over the NAFTA

Bargaining over the NAFTA's auto provisions was protracted and reflected the divergent perspectives that the three parties brought to the table. At stake was not the removal of current restrictions on trade in finished vehicles and components as much as the form and location of new auto industry facilities in North America in the future. Each of the three governments sought to protect its own auto industry in an environment in which there was considerable excess capacity and in the absence of a shared definition among the bargainers of what constituted the "auto industry."

The United States, preoccupied with the competitive strength of the Big Three and US parts producers, was guided largely by the protectionist demands of its domestically owned industry. Chrysler, Ford, and GM all demanded a higher regional content provision than the 50 percent rule that prevailed under the FTA; Ford and Chrysler advocated 70 percent and GM sought 60 percent North American (including Mexican) content. The Motor and Equipment Manufacturers Association argued that the North American rules of origin should be tight enough to induce location of at least power-train (engine and transmission) production in North America. In its definition, a basket of "essential parts" would require at least a 65 percent test.[30]

In addition to higher regional content, the Big Three also pressed for the creation of a "two-tier" production system not unlike the one that emerged as a consequence of the FTA. Under this regime, the five companies now assembling vehicles in Mexico (the Big Three plus Nissan and Volkswagen) would have a privileged position in the Mexican market for 15 years. The Big Three wanted performance and other requirements to be reduced more quickly for the original five firms than for newcomers to the Mexican market, who would have to adjust over a 15-year transition period. US parts producers supported the stance of the Big Three, although they had originally argued for a North American content provision of 75 percent.[31]

US objectives in the NAFTA auto negotiations *vis-à-vis* Mexico reflected the industry perspectives described above. The United States sought a broader opening of the Mexican car market to imports, a reduction of Mexican restrictions on foreign investment, and simplified North American content rules along with a North American content level requirement of 60 percent. Although the United States disliked many of the provisions of the 1989 Mexican Automotive Decree, it also recognized that that decree protected the interests of the Big Three in Mexico.

The objectives of the US auto industry and the US administration with respect to Canada in the NAFTA talks stemmed largely from their dissatisfaction with the rollup provisions of the FTA. Industry actors and the US government wanted to introduce provisions that would prevent rollup and that would force the Asian transplants to undertake more North American sourcing before their vehicles were permitted to move duty free within the North American market.[32]

Because there is no Canadian-owned assembly industry, the Canadian government did not differentiate among vehicle assemblers the way the United States did. Indeed, Canada — because it was sensitive to the situation of the Asian transplants and to the conditions that made Ontario and Quebec attractive to them as locations for their assembly facilities — was seen as the voice of the transplants in the NAFTA negotiations.[33] In contrast to the United States, Canada pushed for a North American content requirement of only 50 percent — which would preserve its attractiveness for new auto industry investment — though in the end it was prepared to accept 60 percent. The Canadian Automotive Parts Manufacturers' Association, like its US counterpart, advocated a high North American content rule. It argued for 75 percent North American content, with the inclusion of 50 percent Canadian value added to protect Canadian suppliers. The latter demand was dropped when the Canadian government indicated that this position was not acceptable from its perspective.[34]

In addition to content specification, Canada had a number of other objectives in the NAFTA talks, including the following: to improve access to the Mexican market for all Canadian exports of vehicles and parts through the removal of Mexico's Auto Decrees (including the investment provisions); to resolve some of the administrative difficulties associated with the FTA rules of origin by negotiating more predictable regulations; and to ensure the maintenance of the Canadian safeguards under the auto pact.[35]

Mexico's goal in the NAFTA negotiations was to preserve as many of the assembly and domestic content requirements of its 1989 Auto Decree as it could, both to protect its domestic supplier sector and to ensure its attractiveness as a location for future investment by multinational enterprises. When Mexico realized that it would have to dismantle most of the provisions of the Decree, it argued that Canada's auto pact should similarly be phased out. With regard to the treatment of foreign transplants (other than Volkswagen and Nissan), Mexico adopted a position similar to that of the United States. In addition, Mexico wanted vehicles that were assembled within its borders by the Big Three to be treated as domestic for CAFE purposes.

The NAFTA Auto Provisions

The NAFTA auto provisions are found in Annex 300-A to Chapter 3, "Market Access," and in Chapter 4, "Rules of Origin."[36] Annex 300-A commits the three parties to treating one another's existing auto producers no less favorably than they would treat a new producer, and to reviewing the NAFTA's impact on the North American auto sector by the year 2003. The annex also contains separate sections for each country: for Canada, on the auto pact, duty drawbacks, and used vehicles; for Mexico, on the Auto Decrees, used vehicles, and import licensing; and for the United States, on its CAFE rules.

Phasing Out Tariffs

The Canadian most-favored nation (MFN) tariff on autos and parts is 9.2 percent, while the US tariff breaks down as follows: 2.5 percent on cars; 3.1 percent, on average, on parts; and 25 percent on trucks. Both Canada and the United States already give preferential tariff treatment to Mexico as a developing country — Canada's tariff is 6 percent on vehicles; the United States' is zero on most parts, and MFN on vehicles. In addition, on products made from US components shipped to and assembled in Mexico for re-export to the United States, the US tariff — under Tariff Items 806 and 807 — applies only to the value added in Mexico. Thus, most autos and parts from Mexico already enter the US and Canadian markets duty free or subject to very low rates of duty. The key tariff affecting Mexican automotive exports that is to be eliminated is therefore the US truck tariff.

In Mexico, the tariff is 20 percent on automobiles and light trucks and averages 11–13 percent on parts. Tariffs on imports from Canada and the United States are to be eliminated, in stages, by 2003.[37] Quotas on imports of new cars are to be removed immediately, but imports will continue to be subject to the trade-balancing requirement, which, although relaxed (see below), is to remain in place until 2004. During the same ten-year period, however, auto manufacturers must continue to produce in Mexico in order to sell in Mexico. Although the Autotransportation Decree, which applies to buses and heavy trucks, is to be lifted immediately, existing quotas on those vehicles are to remain in place until 1999 — that is, until then, manufacturers are permitted to import no more than to 50 percent of the number of heavy vehicles they produce in Mexico each year.

The transition period is somewhat awkward. Tariffs on Canada-US trade are to be eliminated by 1998, following the FTA timetable; tariffs on trade with Mexico, however, are to be phased out over the 1994–2003 period. Different parts and different vehicles are subject to different schedules — for example, engines are affected immediately, car bodies only by 1999. During the transition period, each country must therefore distinguish, on the basis of country of origin, between goods eligible for the FTA timetable and those subject to the NAFTA timetable.

Keeping the Auto Pact, Losing other Duty-Remission Programs

The Canadian annex to Chapter 3 says that Canada and the United States are free to maintain the auto pact as modified by the FTA articles relating to autos, and that the two parties are to administer the pact in the "best interests of employment and production in both countries."

Canada can retain the auto pact duty-remission orders granted to firms qualifying under the terms of the FTA (the Big Three, Volvo, and now CAMI). Duty-remission orders for the nonqualifying producers must be eliminated by 1996, as they were under the FTA.[38] Duty drawbacks on exports to the United States are to be eliminated by 1994 under the FTA; under the NAFTA, the deadline is 1996. Duty drawbacks for trade between Mexico and Canada and between Mexico and the United States are to be eliminated by 2001. Canadian exports by nonqualifying producers of finished goods to the US market will still be entitled to drawback of the Canadian duty on nonoriginating goods up to the amount of the US duty.

Redefining, Tightening the Rules of Origin

Because free trade agreements do not require harmonization of external tariffs against nonmember countries, rules of origin are necessary to ensure that the products receiving duty-free status are actually produced within the free trade area. In the absence of rules of origin, foreign firms could simply ship products into a low-tariff member country and either directly export or lightly process the products prior to transshipment, duty free, to a high-tariff member. In the NAFTA negotiations, rules of origin were an important issue because of Canadian and US concerns that foreign producers would set up assembly operations in Mexico as a back door to the US and Canadian markets. The NAFTA negotiators wanted "to ensure that NAFTA benefits are accorded only to goods produced in the North American region, not goods made wholly or in large part in other countries."[39]

With this in mind, the negotiators reached the following agreement: For most products, a simple change in tariff classification is sufficient to qualify the good as "of North American origin"; for some products, value-added criteria are now to be included; and for a small group of products (autos, textiles, and apparel), value added must be traced backward through several stages of production.

The value-added criteria are based on regional value content. A product qualifies for duty-free status as "made in North America" if, calculated on the basis of the transaction-value method, at least 60 percent of its regional value added — or, using the net-cost method, 50 percent — is generated in North America. The two methods of calculation are as follows:

Transaction-value method:

$$\text{Regional value content} = \frac{\text{Transaction value} - \text{Value of nonoriginating materials}}{\text{Transaction value}}$$

Net-cost method:

$$\text{Regional value content} = \frac{\text{Net cost} - \text{Value of nonoriginating materials}}{\text{Net cost}}$$

"Transaction value" has a specific meaning in the customs valuation code of the General Agreement on Tariffs and Trade; it is the F.O.B. price two parties would pick if they were unrelated and traded at arm's length.[40] Under the NAFTA, where the parties are related, a price must be constructed on the basis of prices of comparable products that were traded at arm's length. Where arm's-length prices are not available, the net-cost rather than the transaction-value method is to be used. Net cost is defined, for each product, as total cost of production minus nonallowable costs.[41] Since net cost will be less than transaction value, a 50 percent, rather than 60 percent, rule of origin applies.

The NAFTA rules of origin for autos are different in several respects from those for other products. First, producers must use the net-cost, rather than the transaction-value, method. Some flexibility is afforded in the calculation of regional value content: averaging over the fiscal year is allowed, including either all motor vehicles in one category or just those vehicles that are exported to the other parties.

Second, by 2002, the regional value content requirement, calculated using the net-cost method, is to increase from 50 to 62.5 percent for autos, light trucks, engines, and transmissions, and to 60 percent for other vehicles and auto parts.[42] Special phase-in periods are provided for new firms or new plants producing new vehicles and for refits of existing plants.[43] Thus, the amount of domestic value added in autos and parts will ultimately be, at a minimum, 10 points higher than that required for other North American products.

Third, vehicle producers must trace key components in the production process and subtract the value of nonoriginating materials to determine the North American content of the final vehicle. Two tracing rules are established, one for autos and small trucks and a second, less stringent, method for large trucks, buses, and specialty vehicles. In the first category, regional value content must be traced for almost every part or subassembly purchased by the vehicle assembler; in the second, tracing applies only to specified materials in the engines and transmissions. Tracing thus involves enormous amounts of paperwork at each stage in the production process, and the accumulated information must be passed on to downstream firms, so that the final assembler can document that the vehicle qualifies for duty-free status.

Abolishing Mexico's Auto Regime

Under the NAFTA, Mexico may retain its 1989 Automotive Decree and the 1990 Implementing Regulations in modified form until 2004, at which time all national auto provisions must conform with the NAFTA.

The current requirement that assemblers generate at least 36 percent national value added is to be reduced in stages — to 34 percent over the 1994–98 period, then annually by 1 percent to 29 percent in 2003, and finally to zero. For the first five years of the agreement, firms with domestic content levels below 34 percent are required only to meet the levels they had achieved in the 1992 model year.[44] In addition, before the content ratio is applied, incremental growth in auto assembly is to be multiplied by a percentage that declines over time. Thus, the effective requirement falls much faster than the nominal one. For parts producers, the domestic content requirement drops from 30 to 20 percent by 2003.

During the phase-in period, assemblers will still have to maintain a positive trade balance — wherein the value of direct exports of vehicles and auto parts is greater than the value of direct and indirect auto part imports. However, in calculating the trade balance, the weight of imports, which is now 100 percent, will be reduced to 80 percent in 1994, and will fall in stages to 55 percent by 2003, permitting the import of increasingly more parts and components. Assemblers can also divide their trade balance, which limits the total value of new vehicles they can import, by the same percentages (80 percent in 1994, falling to 55 percent by 2003), which will enable them to import increasingly large numbers of new vehicles.

Historically, Maquiladora plants were prohibited from selling their output in the domestic market. In 1983, the regulations were relaxed to allow domestic sales of up to 20 percent of value added over and above the previous year's exports. Under the 1989 Auto Decree, that allowance was raised to 50 percent. Under the NAFTA, all such restrictions are to be phased out over the course of seven years, starting from a minimum of 60 percent and rising in steps to 85 percent in 1999, after which the cap is to be removed. In addition, purchases from independent Maquiladora plants that qualify as national suppliers can be included as national value added in the domestic content calculation. The Mexican duty-drawback programs are to be phased out by 2001; after that, duty on parts imported from nonmember countries will have to be paid when the assembled product is exported to Canada or the United States.

Finally, restrictions on foreign ownership of firms in the auto parts industry are to be phased out by 1999 for North American investors and investments. Foreign-owned firms with "substantive" business activity in North America will be considered, under the NAFTA, as North American investors — so Asian transplants will be allowed to own auto parts firms in Mexico.

Bringing Mexico into the US CAFE Rules

The US auto appendix deals only with the Corporate Average Fuel Economy regulations under the US *Energy Policy and Conservation Act of 1975*. The CAFE rules require that firms assembling vehicles for the US market divide their production into domestic and foreign fleets, based on a 75 percent value-added test.[45] Both fleets must meet a fuel economy standard of 27.5 miles per gallon. Since big cars are much larger users of fuel than small cars, the assemblers juggle the imported content of individual vehicles so that some large cars are defined as foreign and some small cars as domestic — for example, Ford's Crown Victorias assembled in Canada have enough Mexican content to be defined as foreign, and its Escorts assembled in Mexico have enough US content to be defined as domestic[46] — thereby ensuring a mixture of big and small cars in each fleet and achieving the average 27.5 mile per gallon fuel standard that is mandated for each fleet. The intent of the two-fleet provision was job-related: it was meant to ensure that the Big Three would continue to produce small, fuel-efficient cars in the United States and Canada by reducing their incentive to source small cars offshore.

Under the NAFTA, a vehicle qualifies as domestic for CAFE purposes if at least 75 percent of its cost to the manufacturer comes from value added in Canada, Mexico, or the United States. The agreement outlines a schedule, based on time and place of production, for bringing Mexico into the CAFE rules. Starting in 1997, auto assemblers in the three countries can choose whether or not the CAFE rule is to apply; in 2004, the rule must be enforced, and all production in the three countries by existing assemblers will count as domestic. However, new manufacturers in Mexico and assemblers operating outside North America must meet the CAFE test on the day that the NAFTA comes into effect.

Phasing Out Import Restrictions on Used Vehicles

Under the NAFTA, Canadian restrictions on used-car imports from Mexico, and Mexican restrictions on used-vehicle imports from Canada and the United States, are to be phased out over a ten-year period starting in 2009. Mexico historically has prohibited the importation of used vehicles as a way to protect its domestic industry. The NAFTA, therefore, gives 25 more years of protection to existing producers (primarily the Big Three and Volkswagen) before opening this area up to import competition.

The Current Situation in the North American Auto Industry

Any assessment of the potential impact of the NAFTA on the Canadian auto industry must first take into account several other factors that affect the performance of the North American industry. These factors, which may work either to reinforce or to weaken the potential impact of the NAFTA, include:

- global overcapacity;
- the rise in the value of the Japanese yen;
- the adoption of new production technologies;
- the attraction of lower wages;
- differences in the financial positions of the Big Three producers, and;
- the outcome of the 1993 round of union negotiations.

Global Overcapacity

The recession in Canada and the United States has been slower to end than anticipated, while the economies of the European Community and Japan moved into recession in 1992–93. European car sales were down 17.5 percent in the first eight months of 1993 and are expected to remain depressed for at least another year.[47] In North America, consumers continue to postpone the purchase of new vehicles; the average age of vehicles on the road today is higher than it has been in many years. Although the financial picture of the Big Three producers is improving, the industry outlook in Canada and the United States is far from robust, and competition among the Big Three and the Asian transplants remains intense. In 1985, the Big Three produced close to 13 million cars and trucks; in 1991 and 1992, the comparable figures were 8.6 and 9.5 million, respectively.[48]

The Big Three have attempted to cope with this excess capacity by closing plants and rationalizing production among those that remain. At the end of 1992, for example, GM announced the closure of 23 plants in Canada and the United States; 35,000 workers, including 3,100 Canadians, were given termination notices.[49] A second approach taken by the Big Three has been to demand greater efficiency and lower prices from their suppliers.[50]

The slow overall growth in the North American market for vehicles underlines the importance of consumer demand in Mexico. The Big Three are counting on the continuing vibrancy of the Mexican market, which has recently been the fastest growing in the world.[51] If economic growth in Mexico is strong and distributed across the population, then Canada and the United States are likely to profit in terms of opportunities for vehicle exports. One of the United States' objectives in the NAFTA was to shut the Asian transplants temporarily out of the Mexican market, allowing the Big Three to benefit from what was seen as pentup demand in Mexico. However, economic growth in Mexico is by no means assured. If it does not occur, the Big Three will face serious difficulty in finding outlets for their excess capacity. The likely result would be additional plant closures and job losses.

The Rapid Rise in the Value of the Yen

One bright spot for the Big Three is that the Japanese auto producers are in financial difficulty, for the first time in many years. Growth in the Japanese economy has been stalled for the past two quarters, and the yen has risen 17 percent against the US dollar. The transplants that import most of their parts from Japan must consequently choose among several difficult options: pass the yen increase through in higher prices in the US market; suffer losses on exports to the United States; engage in serious cost cutting and layoffs at home; or shift their production and components sourcing to North America or elsewhere in Asia.[52] As a result of the yen increase, Japanese cars are now priced at US$2,000 more, on average, than similar Big Three vehicles made in the United States, and the Big Three's share of the US market has risen to almost 75 percent.[53] Transplant cars that are built in North America using mostly local parts — such as the Nissan Altima, Toyota Camry, Honda Accord, and Mitsubishi Galant — are more insulated from yen/dollar exchange-rate shocks. The Big Three have announced plans to increase US vehicle production by 15.4 percent in the fourth quarter of 1993, concentrating on the fast-growing light truck segment, whereas Toyota, Nissan, and Mazda are cutting planned production in the United States.[54] Thus, even though the total US and Canadian market may grow slowly, the Big Three nonetheless expect to capture a larger share of it.

The Impact of Technological Change

The future of the auto industry in North America will depend not only on finding an outlet, potentially in Mexico, for its current excess capacity, but also on the impact of technological change. Changing strategies of production in the auto industry have recently received so much attention that the subject does not require detailed explication here.[55] Suffice it to note that, over the course of the decade, the Big Three have started to adopt Japanese production methods based on just-in-time sourcing, zero-defect quality, and flexible automation, and the quality gap between North American and Japanese cars has narrowed dramatically.

One consequence of these new production methods is the need for proximity between suppliers and assemblers, both to ensure reliable delivery of components and to facilitate closer cooperation. General Motors, for example, in shifting from in-house components production to out-sourcing, has reduced the number of independent parts suppliers it uses, lengthened the contract terms of those it has retained, and brought them into the technology development process. Proximity has thus become an important factor in determining plant location and will restrict the freedom of parts producers to relocate solely on the basis of labor-cost considerations.

The Attraction of Lower Wages

Low wages are frequently cited as a reason why firms would relocate to Mexico. It must be remembered, however, that wage levels generally reflect labor productivity; Mexico's low wages reflect lower education levels, higher employee turnover, smaller and less efficient plants, and poorer infrastructure. In fact, unit labor costs across the three countries are much more homogeneous.[56] Moreover, lower labor costs in Mexico may be offset by the higher transportation costs of moving assembled vehicles to the US market.[57] Finally, as flexible automation reduces the importance of the labor component and increases the technological sophistication of production, the availability of low-skilled labor declines in importance in the location decisions of multinational enterprises.

Nonetheless, it is also true that Mexican workers are young and motivated and, when given the opportunity to work in world-class plants with state-of-the-art equipment — as is the case at the Ford Hermosillo plant — they achieve a level of productivity as high as that of the best plants in the United States. As Mexico's infrastructure is modernized over the next 10 to

20 years, the average level of labor productivity can be expected to increase dramatically.

The low-wage issue is not exclusive to Mexico: wage rates are also lower in Canada than in the United States. Another issue relating to employee compensation is that of fringe benefits. Differences in benefit levels between Canada and the United States, deriving primarily from different financing arrangements for health care costs, have been cited by firms as a reason for locating in Canada. If the US administration is successful in introducing a health care program that reduces health care costs for businesses, some of Canada's labor-cost advantage in this regard will disappear.

Comparing the Situations of the Big Three

Although we have considered the Big Three auto multinationals as a group, it is important to remember that their situations are not identical. General Motors — the world's largest motor vehicle multinational enterprise — is in difficult financial straits: it has an unfunded pension liability estimated at between US$14 and 19 billion; it has suffered $17 billion in US losses since 1990, and it now has a negative net worth of $5.7 billion.[58] GM's US operations are still losing both market share and money. In August 1993, its passenger car sales fell below 30 percent of the US market for the first time since the Great Depression — with the exception of periods dominated by major strikes. In 1992, its US losses averaged more than $1,000 for every vehicle sold.

GM's plans could result in the elimination of as many as 90,000 jobs by the end of the 1990s, primarily in auto parts and components. GM owns the largest captive automotive parts producer group in the world, the Automotive Components Group, worth about $24 billion. The group produces about 70 percent of the parts used in GM vehicles, and its workers earn wages and benefits totaling $42 per hour, double or triple the rates received by workers in independent auto parts firms. As a cost-cutting and downsizing measure, GM has put parts operations worth $3 billion up for sale. Allison Gas Turbine and five parts plants in the Saginaw division — including an axle plant in St. Catharines, Ont. — are among the first to be sold.[59]

Ford and Chrysler, having implemented serious cost-cutting measures and numerous layoffs in the 1980s, have now emerged as leaner, more efficient operations. Both are gaining market share and expect to hire new workers. In 1992, Ford lost about US$100 on every vehicle sold in the United States, but its balance sheet should soon be in the black. Chrysler earned a net income of US$723 million on sales of $36.9 billion in 1992. The future for Ford and Chrysler looks brighter than it has for some time. With the 1994 model year starting on October 1, 1993, they are set to introduce new models such as the Chrysler Neon — Chrysler's first complete "lean production" car — and Ram pickup truck, and the redesigned Ford Mustang. Both companies are optimistic about their North American sales.

The 1993 Union Contract Negotiations

At the time of writing, the United Auto Workers (UAW), Canadian Auto Workers (CAW), and some of the Big Three were still engaged in contract negotiations. Under the pattern bargaining typical in this industry, the UAW targeted Ford first. The new three-year contract with Ford, signed on September 15, 1993, reflects the UAW's ongoing concern with outsourcing and job layoffs. UAW workers will receive 3 percent wage increases as well as cost of living increases for the next two years, together with higher pension benefits (worth about US$200 per month). The contract allows Ford to pay new employees 70 percent of the standard UAW floor of about $18 per hour for the first three years of employment, rather than 85 percent for 18 months as stipulated in the previous contract. In addition, Ford agreed to continue the income protection plan that pays up to 95 percent of full pay to workers laid off as far back as 1987, allocating $1.6 billion for total layoff benefits. Ford had allocated the same amount in the 1990 agreement, but paid out only $581 million.

In Canada, the CAW targeted Chrysler first, and has just ended talks with General Motors as well. The CAW's main concerns are also income security and out-sourcing of parts. Chrysler — about one-fifth of whose 65,000 hourly employees work in Canada.[60] — pays about $7 per hour less in wages and fringe benefits in Canada than it does in the United States. The new CAW-Chrysler agreement includes a 4.5 percent wage increase plus cost of living increases over three years, higher pensions, more time off, and a third shift at the Chrysler minivan plant in Windsor, Ontario. The CAW held GM to the same pattern as Chrysler, with CAW president Buzz Hargrove expressing concern that a 700-worker axle plant in St. Catharines, Ontario, is one of the parts plants GM has sold; GM's income protection funds in Canada are almost depleted.[61]

If the Ford-UAW and Chrysler-CAW contracts are pattern setting, the 1993 union negotiations should further benefit Chrysler and Ford while creating additional cost pressures for General Motors. GM, with its large number of workers on layoff and its huge pension liabilities, can ill afford the pension increase and income protection plan secured in the Ford-UAW contract. The UAW plans to hold GM to the Ford pattern, including the income protection plan. As a result, GM's efforts to downsize by selling off unprofitable, noncore operations is likely to continue.

Conclusion

The importance of the factors described above makes it difficult to give a simple assessment of the impact of the NAFTA on the auto industry. The decisions of firms on matters of investment, production, and trade will be based not only on their appraisal of the NAFTA, but also on their individual financial situations, the long-run health of the North American economy, the rapidity and cost of technological change, and the need to deal with excess capacity in the industry. In addition, it is essential to remember that, although the NAFTA auto provisions will result in a much more integrated North American vehicle market by 2004, in the interim trade and investment in the auto industry have been consciously structured to advantage the Big Three and the Mexican parts producers. The long-run goal is freer intracontinental trade; at present, the reality is managed trade.

The Implications of the NAFTA for the Auto Industry in Canada

In a recent study, Gary Hufbauer and Jeffrey Schott offer a very positive assessment of the impact of the NAFTA on the auto industry. They suggest that, by rationalizing production on a continental basis, "North America could become the world's low cost producer of autos and trucks, and a major net exporter of these products."[62] We view their assessment as overly optimistic because it underplays the critical long-run problems that the Big Three will continue to face — overcapacity, adaptation to massive technological change, and the difficulties associated with trying to catch up with the superior performance of Japanese producers — and relies too heavily on short-run growth in Mexican demand for US auto exports as the solution to those problems.

Other studies are not as optimistic. The applied general-equilibrium study of the NAFTA conducted by Richard Harris and David Cox, for example, finds that Canada's share of the US import market in transportation equipment will fall by 16 percent as a result of the NAFTA, while Mexico's will increase by 41 percent.[63] The sectoral study of the NAFTA and the auto industry by Linda Hunter, James Markusen, and Tom Rutherford, in its treatment of the impact on the intrafirm trade flows of the multinational enterprises, predicts greatly increased vehicle production and welfare levels in Mexico, and slightly reduced production and welfare levels in Canada and the United States.[64] The authors argue that, since vehicle producers in Mexico have been protected by high tariff and nontariff barriers, they have earned large profit margins on Mexican sales. Because both the FTA and the NAFTA eventually allow free trade in autos for individual consumers — as opposed to the auto pact, which secured free trade only for producers — the Big Three will be less able to employ price-discrimination measures among the three markets in North America. As a result, plant rationalizations as well as auto production and welfare gains are predicted to be much larger in Mexico, and production and welfare declines much greater in Canada and the United States.

The analysis offered in each of these studies has limitations with regard to the Canadian situation. Hufbauer and Schott concentrate on the impact of the NAFTA on the US auto industry and pay little attention to Canada. The other two studies focus on Canada, but they are long-run, applied general-equilibrium models that, by their nature, are designed to exclude industry complexities and firm-specific behavior. As a result, they are somewhat more pessimistic about the Canadian auto industry than warranted, according to the implications of our own analysis.

Even though the worldwide auto industry is depressed, the Canadian industry continues to outperform its US counterpart. Canada's share of the combined Canadian and US vehicle market has for some years been in the range of 8 to 9 percent. Canada's share of production, however, has risen from 12.6 percent in 1970 to 17.6 percent in 1993; its share of employment is slightly higher again.[65] Given this, it is clear that the auto pact safeguards — which imply the production of one car in Canada for each one sold in Canada — have not been binding for quite some time, thus providing tangible evidence of the relative competitiveness of Canadian production. The Canadian auto parts industry grew by almost 20 percent annually during the 1980s, and Canadian parts producers increased their share of North American production from 6 percent in 1981 to 11 percent in 1989. Costs in Canada remain competitive, and several auto producers have made significant new investments in additional plant capacity — for example, Ford in Oakville, Ont., and Chrysler in Windsor and Bramalea, Ont.; Toyota is also expected to expand its plant in Cambridge, Ont.

To make our discussion of the implications of the NAFTA for the Canadian auto industry manageable, we break the topic down into a number of questions: Were Canadian goals met? How will the NAFTA affect the Big Three in Canada? What will be the impact on the Asian transplants? What will be the impact on the Canadian parts industry?

Were Canadian Goals Met?

We have already noted that Canadian negotiators had several specific goals in the automotive portion of the NAFTA talks, including retention of the auto pact; improved access to the Mexican market for Canadian vehicle exports (including those of the transplants), during the phase-in period of the agreement; more transparent rules of origin and a more precise method for calculating North American content (to prevent the recurrence of cases such as the Honda Civic audit); and a North American content level requirement of 50 percent. Two of these objectives were not met: the North American content requirement was set at 62.5 percent, and during the transition period, Toyota and Honda are unable to export to Mexico vehicles assembled in Canada because neither now has assembly capacity in Mexico. Canada was satisfied with the inclusion of the provision on new plants and plant refits, which gives producers of new vehicles a 50 percent rather than a 62.5 percent rule of origin for the first five years of operation. The United States was less pleased with this provision, believing that its primary beneficiaries would be the Japanese auto-makers.

How Will the NAFTA Affect the Big Three in Canada?

The NAFTA will have a smaller effect on vehicle assembly in Canada by the Big Three than either the FTA or the overall restructuring of the auto industry that is currently under way. Plants assembling popular models (for example, minivans) are secure for the moment. In the current cost-conscious environment, however, every auto plant finds itself in competition with other affiliates for new product lines, and having to justify its existence on the basis of its North American competitiveness. For example, GM has stipulated that no plant is guaranteed a new model once the lifespan of the one currently being assembled ends.

At the same time, the NAFTA will affect the Big Three to the extent that the duty-remission program has constituted their major regulatory incentive to meet the auto pact's safeguards. Under the NAFTA, Canadian imports from the United States and Mexico will enter duty free after 1998 and 2003, respectively. Thus, the auto pact benefits will apply only to imports from nonmember countries. Jon Johnson estimates that, in 1991, the $24.1 billion of duty-free imports that entered Canada under the auto pact was distributed as follows: the United States, $21.5 billion; Mexico, $1.4 billion; Japan, $0.6 billion; and other countries, $0.7 billion.[66] If the current 9.2 percent MFN tariff had been levied on this $24.1 billion in duty-free imports, it would have raised $2.2 billion in tariff revenues. In other words, the auto pact safeguards saved the industry $2.2 billion in potential duties. In 1991, total Canadian duties paid on automotive goods were $5.8 billion, so the savings were worth about 40 percent of the total actually paid. Even if we ignore duty-free imports from the United States and Mexico, the safeguards still saved $114.9 million in duties on imports from third countries — although this is clearly a much smaller saving for the Big Three. If the Canadian tariff were to fall from 9.2 percent to the average US rate on parts, the savings would be only $38 million. Although the regulatory incentive to continue assembly in Canada may be limited under the NAFTA, it is still positive.

One of the major benefits that the NAFTA will bring is the opening of the Mexican market to imports and foreign direct investment from Canada and the United States. The effect of the auto pact was to integrate that portion of the Canadian and US auto industries controlled by the Big Three. The Mexican industry, however, is still highly protected, although the Mexican economy in general has undergone significant unilateral liberalization since 1985. The principal beneficiaries of the opening of the Mexican market are likely to be US auto multinationals: since they are already located in Mexico, the NAFTA provisions give them preferential treatment. Canadian auto-parts firms will benefit to the extent that they may increase exports to Mexico or invest in the Mexican auto industry.

The new CAFE rules will give US auto producers greater flexibility in rationalizing production on a continental basis. The Big Three are expected to adjust their sourcing practices, which, as noted earlier, are currently set up to ensure that larger, less fuel-efficient cars count as foreign and that smaller, more fuel-efficient ones count as domestic. The auto multinationals will now be able to meet their domestic-fleet CAFE standards by producing small cars in Mexico as well as in Canada and the United States. Since the CAFE rules can no longer be used as a disincentive for producing small cars in Mexico, there may be some rationalization of assembly plants and some sourcing of parts in Canada and the United States.

How Will the NAFTA Affect the Asian Transplants in Canada?

The Japanese Automobile Manufacturers Association, whose membership favored a 50 percent regional content provision and opposed the two-tier system for the Mexican auto industry, labeled the NAFTA "a giant step in the wrong direction."[67] With the elimination of the duty drawback on exports to the United States, the transplants will have to pay the Canadian MFN tariff on parts imported from third countries. The important question for Canada, therefore, is whether the Japanese firms will phase out their Canadian production and whether they will locate any new plants or expand existing plants in Canada.

A partial duty drawback, however, will still be available to the transplants. After 1996, firms in Canada exporting finished goods that have not met the NAFTA rules of origin to the US market will be entitled to a drawback of the Canadian duty on imported parts up to the amount of the US duty on vehicles. This new duty rebate was not included in the FTA and therefore provides some inducement for the foreign transplants to stay in Canada. However, since the Canadian tariff on imported parts is higher than the US tariff on vehicles, nonqualifying producers will still face substantial tariff costs, especially where imported parts from nonmember countries represent a large share of their total production costs. One of four scenarios may consequently develop:

- nonqualifying producers may simply absorb the difference in tariffs and continue to produce in Canada;
- in order to avoid the extra tariff, they may relocate processing functions that are heavily dependent on imports from third countries from Canada to the United States;
- they may pressure the Canadian government to reduce its tariff to the level of the US tariff; or
- they may cut back on third-country imports and either source parts domestically or import them from Mexico or the United States.

Clearly, the Canadian parts sector hopes that the fourth scenario will prevail, but that outcome is by no means assured.

Under the redefined method for measuring North American content, Honda may escape some of the difficulties it encountered during early 1992; the company is confident it can qualify under the NAFTA rules of origin, although this remains to be seen. The GM-Suzuki CAMI joint venture receives special treatment with respect to its exports to the United States under the NAFTA insofar as it is allowed to average its content with cars produced by GM in Canada — as long as GM continues to own 50 percent or more of the voting common stock of CAMI and members of the GM family acquire 75 percent of CAMI's annual production. Transplants have eight years to adapt to the new North American content requirements. Although Japanese vehicle assemblers have gone to great lengths to establish themselves as North American companies, their adjustment to the NAFTA rules of origin will depend on their estimates of the strength of North American demand, production costs in North America and Asia as affected by the yen/dollar exchange rate, and their assessment of the need to be seen as insiders in the North American market.

How Will the NAFTA Affect Canadian Parts Producers?

The auto parts industry in Canada consists of the Big Three's in-house suppliers and a few hundred independent parts producers. The latter are becoming increasingly segmented into three groups: a small number of Canadian-owned multinational firms, such as Magna International, A.G. Simpson, and Woodbridge Foam; a number of foreign-owned parts plants, such as Allied Signal and Hayes Dana; and the majority, which are small, family-owned operations. The impact of the NAFTA on the parts industry can be considered from two perspectives: (1) Will the Big Three continue to source parts in Canada, from both in-house and independent suppliers, to meet the auto pact safeguards as modified by the NAFTA? and (2) Where will auto parts firms locate new investments to fulfill North American content requirements?

The first question has just been addressed from the perspective of the assemblers. Auto pact safeguards have provided Canadian parts producers with significant benefits over the years because the Canadian value added requirements created incentives for assemblers to procure parts in Canada.[68] Since the mid-1980s, the Big Three have been producing well above the safeguard levels, testifying to the attractiveness of production in Canada. There is also considerable movement of parts from Mexico to Canada under the auto pact, since qualifying manufacturers can import parts duty free from any MFN country. Since the NAFTA retains the auto pact safeguards with respect to imports from Mexico for ten years and from nonmember countries indefinitely, there will continue to be incentives for assemblers to manufacture vehicles in Canada and, if Canadian parts producers remain competitive, to source parts in this country. With regard to the in-house suppliers, GM parts plants in Canada are vulnerable because of the company's need to continue to restructure and downsize its operations. On the other hand, independent parts suppliers appear to be benefiting from GM's out-sourcing program. The introduction of lean production techniques is also tying the larger independents more closely to the Big Three.

The second question — that of future investment — is more difficult. Recognizing that the NAFTA negotiations were about future investment more than future trade, the parts producers advocated an increase in the North American content provision from the 50 percent that prevailed under the FTA to 75 percent, with the inclusion of a minimum Canadian content provision as part of the North American requirement. Whether correctly or not, parts producers believed that the higher the content requirement, the greater their long-term market opportunities would be.

North American content requirements were changed under the NAFTA for much the same reason that they were changed under the FTA: to exert pressure on foreign transplants either to manufacture more components in North America or to purchase them from North American suppliers. It was believed that, even if the transplants opted for the first strategy, their purchases from North American parts producers would nonetheless also increase. The question now is whether any (or if some, how much) of the new investment in components production will be located in Canada, and whether it will advantage existing parts producers. Overcapacity in the North American auto industry and the difficulties currently being faced by Japanese auto producers in their home market may obviate, at least in the short term, their interest in new auto-industry investment.

Although opponents of the NAFTA raise the specter of job losses to Mexico because of lower labor costs and although a small number of Canadian firms producing labor-intensive components have moved facilities to Mexico, Canada has not yet lost a major OEM investment to Mexico.[69] In fact, the real challenge for Canadian parts producers is less Mexico than the United States. Companies planning new investments in North America may well be drawn to the largest market, since their location there will render moot the NAFTA content provisions — unless the component is part of a car made for export to either Canada or Mexico. Thus far, virtually all of the transplant investment in components production has been in the United States. Moreover, in the light of trade tensions between the United States and Japan, there is a political incentive for the transplants to invest in parts production in the United States. There are also other levers, such as state location incentives, to attract investment to the United States. Some of these have already met with success: for example, A.G. Simpson is locating a new stamping plant in Kentucky, and Magna is locating a plant for manufacturing car exteriors in South Carolina.[70] Although Canadian parts producers are becoming increasingly competitive, cost competitiveness may not be the only factor determining the location of parts plants. Other factors — such as state subsidies, the need to be close to downstream assemblers, and the desire to locate in the largest market — contribute to a diminution of Canada's share in North American components production.

Conclusion

The North American auto industry is in the process of integrating on a continental basis.[71] Intracontinental trade and investment flows will be freer after the NAFTA is implemented, but they will still be managed, particularly during the NAFTA's phase-in period. Various barriers will remain, even after 2004 — among them, the differences in tariff levels against nonmember countries, the tight rules of origin that discourage imports, the (albeit watered down) safeguards under the auto pact, and the remaining restrictions on the movement of used vehicles. The NAFTA does, however, introduce two profound changes: (1) during the phase-in period, the industry is structured on a two-tier basis, with the Big Three holding the advantage over the transplants; and (2) the gradual liberalization of Mexico's auto regulations will be a major force promoting continental integration of the auto sector.

The Canadian auto industry, in both its parts and its assembly operations, engaged in significant rationalization over the course of the 1980s and is now relatively efficient by world standards. Its share of North American production and employment well exceeds auto pact safeguard levels. Although recent performance has been impressive, it is critical, however, given the ongoing structural changes facing the North American auto sector, that the Canadian industry remain cost competitive. Canadian plants must continue to adopt best-practice technology, upgrade their facilities, and retrain their workers, since further downsizing and rationalization, particularly by General Motors, is likely to be necessary in North America over the next few years.

Although the NAFTA's opening of the Mexican market will benefit Canadian producers, the benefits are unlikely to be large — at least in the short run — given the limited size of Canada-Mexico trade and investment flows and uncertainties connected with the potential growth of the Mexican market. In addition, the impending elimination of the duty-drawback and duty-remission programs for non-auto pact producers, already part of the FTA but extended in the NAFTA to Canadian imports from Mexico, may have negative effects on future transplant investments in Canada.

Moreover, the United States' attractiveness *vis-à-vis* Canada may well increase over time as lean production techniques cause parts producers to situate close to assemblers. The ongoing changes in the industry eventually may reduce the overall share of North American production located in Canada, even if the Big Three continue to meet the auto pact safeguards.

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Canada's future share of the North American auto industry will depend on how the industry is managed, both by the multinational firms that dominate its trade and investment patterns and by the three national governments, each intent on improving its own employment levels and enhancing its own national competitiveness.

The NAFTA is another step on the road to freer North American trade in the auto industry, but, for the next decade at least, it is also just the next step in managed trade.

Notes

We would like to thank Maureen Beard Freedman, Jon Johnson, Sandy Moroz, Daniel Schwanen, and Ron Wonnacott for their helpful comments and discussions. This paper is part of an ongoing project supported by the Social Sciences and Humanities Research Council of Canada.

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6 Johnson, "The Effect of the Canada-US Free Trade Agreement."

7 Ibid., p. 257.

8 Vehicle assemblers had to maintain a ratio between the net value of vehicles produced in Canada and the net value of vehicles sold in Canada, and a level of Canadian value added for all classes of vehicles assembled in Canada had to be at least as great as the amount achieved in the base year.

9 Studebaker was then in business but the company folded shortly thereafter. A number of truck manufacturers also qualified.

10 Ronald J. Wonnacott, *The Canada-US Experience in Auto Trade since 1965: Its Relevance for Free Trade Negotiations with Mexico*, C.D. Howe Institute Commentary 24 (Toronto: C.D. Howe Institute, 1990), pp. 2–3.

11 Duty drawbacks and duty remissions are not the same thing. A duty drawback is provided on components imported by vehicle manufacturers for use in the assembly of vehicles that are subsequently exported. A duty remission is given on imported items regardless of whether they are subsequently exported. The Maquiladora program in Mexico is a duty-drawback program, in that it exempts imports from duty if they are used in products that are subsequently exported. Under the auto pact, qualifying manufacturers have a duty-remission program that exempts them from Canadian duty on imports from any country as long as the firms meet the auto pact safeguards. See Murray G. Smith and Ronald J. Wonnacott, "Alternative Approaches to North American Free Trade and the Auto Industry," in Molot, ed. *Driving Continentally*, p. 302, note 6; and Neil B. MacDonald, "Will the Free Trade Deal Drive a Gaping Hole through the Auto Pact?" *Policy Options* 10 (January/February 1989): p. 13.

12 The transplants were seen by Americans as a form of investment shunting, designed to avoid US voluntary export restraints on Japanese auto exports.

13 Note that several US states actively engaged in interstate subsidy wars to attract investment by Japanese firms. See Janice Plumstead, Brian Russell, and David Stuewe, "The North American Automotive Industry: State Government Response to a Changing International Environment," in Molot, ed., *Driving Continentally*.

14 Wonnacott, "The Canada-US Experience in Auto Trade since 1965," p. 4.

15 For detailed discussions of Chapter 10 of the FTA and its impact, see, for example, Johnson, "The Effect of the Canada-US Free Trade Agreement"; MacDonald, "Will the Free Trade Deal Drive a Gaping Hole through the Auto Pact?"; and Wonnacott, "The Canada-US Experience in Auto Trade since 1965."

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19 Johnson, "The Effect of the Canada-US Free Trade Agreement," pp. 263–64. The origin of many auto parts is determined by a "change in tariff classification." See also Jon R. Johnson, *What Is a North American Good? The NAFTA Rules of Origin*, C.D. Howe Institute Commentary 40 (Toronto: C.D. Howe Institute, 1993), pp. 3–4.

20 Canada, Department of External Affairs, *The Canada-US Free Trade Agreement*, Ottawa, December 10, 1987, p. 151.

21 Ibid.

22 See James Carter's computation of the minimum value of originating materials for a hypothetical $10,000 vehicle. James Carter, "Autos and the NAFTA," in William Watson, ed., *North American Free Trade Area*

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(Kingston: John Deutsch Institute for the Study of Economic Policy, Queens University, 1991), pp. 90-92.

23 Smith and Wonnacott, "Alternative Approaches to North American Free Trade and the Auto Industry," pp. 295-296.

24 For tables showing the levels of domestic and export sales of the Mexican-based assembly firms, see Marc N. Scheinman, "Corporate Strategy, Globalization and NAFTA: Mexico's New Role," in Molot, ed., *Driving Continentally*. See also Jose Carlos Ramirez, "Recent Transformations in the Mexican Motor Industry," *IDS Bulletin* 24 (April 1993): 58-64.

24 For a detailed discussion, see John Holmes, "From Three Industries to One: Towards an Integrated North American Automobile Industry," and Helen Shapiro, "The Determinants of Trade and Investment Flows in LDC Auto Industries: The Cases of Brazil and Mexico," both in Molot, ed., *Driving Continentally*.

25 The number of models each assembler could produce was limited under the 1983 decree.

26 For more details, see Jon Johnson, "NAFTA and the Trade in Automotive Goods," in Steve Gloverman and Michael Walker, eds., *Assessing NAFTA: A Trinational Analysis* (Vancouver: Fraser Institute, 1993), p. 96.

27 James P. Womack, Daniel T. Jones, and Daniel Roos, *The Machine That Changed the World* (New York: Rawson Associates, 1990), p. 266; Holmes, "From Three Industries to One," p. 51; Hufbauer and Schott, *North American Free Trade*, p. 218.

28 Holmes, "From Three Industries to One," p. 57, note 17. For a comparison of the two policies, see Johnson, "NAFTA and the Trade in Automotive Goods," pp. 94-96.

29 Motor and Equipment Manufacturers Association (MEMA), *Objectives and Proposed Policy Approaches of the US Motor Vehicle Parts and Equipment Manufacturing Industry for a North American Free Trade Agreement* (Washington, DC, October 14, 1991), p. 9.

30 For a description of the Big Three position, see *Inside US Trade*, September 23, 1991; for the position of the parts producers, see MEMA, *Objectives and Proposed Policy Approaches*, p. 2.

31 Hufbauer and Schott, *North American Free Trade*, p. 226.

32 Canadian officials vigorously denied such suggestions.

33 Automotive Parts Manufacturers' Association (APMA), *APMA Proposed Policy Positions for the Automotive Provisions of a North American Free Trade Agreement* (Toronto, October 10, 1991); and an interview by the authors with an APMA official, December 1992.

34 Canada attempted to persuade the United States to address two other issues, but with no success. They were (1) the need to examine the distortions in the US market that result from policies such state (as opposed to federal) location incentives, and (2) the development of a North American auto trade policy *vis-à-vis* Japan. Interview by authors with an official of the Department of Industry, Science and Technology, Ottawa, November 1992.

36 For good summaries of the NAFTA auto provisions, see Gary Hufbauer and Jeffrey Schott, *NAFTA: An Assessment* (Washington, DC: Institute for International Economics, 1993), pp. 37-43; Johnson, "NAFTA and the Trade in Automotive Goods"; and Peter Morici, "NAFTA Rules of Origin and Automotive Content Requirements," in Globerman and Walker, eds., *Assessing NAFTA*, pp. 226-250.

37 For cars, the tariff is reduced by half immediately and to zero in ten years, and for light trucks, it is reduced by half immediately and to zero in five years. Within five years, Mexico will have eliminated tariffs on 75 percent of its imports of Canadian and US parts.

38 See Johnson, "NAFTA and the Trade in Automotive Goods," p. 110.

39 Governments of Canada, the United States, and Mexico, *Description of the Proposed North American Free Trade Agreement*, August 12, 1993, p. 2.

40 Nonoriginating materials are valued at their transaction value on a customs duties, insurance, and freight costs basis. See Johnson, *What Is a North American Good?*, pp. 7-8.

41 Nonallowable costs include sales promotion, marketing and after-sales service costs, royalties, shipping and packing costs, and nonallowable interest costs. To determine the net cost of a particular product, a firm must first add up the production costs for all its product lines and subtract all nonallowable costs, thereby determining the net cost for all its product lines combined. It must then "reasonably allocate" an appropriate portion of the difference back to the particular product in question to determine its net cost.

42 For autos, the regional value content rises to 56 percent starting on the producer's fiscal year date closest to January 1, 1998, and to 62.5 percent starting on the date closest to January 1, 2002. For buses and trucks, the percentages are 55 percent by 1998 and 60 percent by 2002.

43 In the case of a new motor vehicle prototype produced by an assembler in a new building with substantially new machinery, a regional value content requirement of 50 percent will apply for the first five years of production. In the case of a refit of an existing plant, a regional value content of 50 percent will apply for two years.

44 Only Ford achieved the required 36 percent; most assemblers generated less than 34 percent national value added. See Johnson, "NAFTA and the Trade in Automotive Goods," p. 117, and Hufbauer and Schott, *NAFTA: An Assessment*, p. 38.

45 If a vehicle contains 75 percent or more US or Canadian value added, it is classified as domestic; it if contains less than 75 percent, it is classified as foreign. See Hufbauer and Schott, *North American Free Trade: Issues and Recommendations*, pp. 210-211.

46 See Johnson, "NAFTA and the Trade in Automotive Goods," p. 120.

47 Fred Kapner, "Europe's Battered Carmakers Struggle to Reverse Fortunes," *Financial Post*, September 7, 1993, p. 8.

48 Susan MacKnight, "US-Japan Competition in Automotive Parts: No Quick Fixes," *JEI Report* 15A (Japan Economic Institute, Washington, DC), April 23, 1993, p. 3.

49 Timothy Pritchard, "GM Slashing 18,000 Jobs, Nine Plants in US, Canada," *Globe and Mail* (Toronto), December 4, 1992, p. B1.

50 For details, see MacKnight, " US-Japan Competition in Automotive Parts," pp. 3, 5.

51 See Hufbauer and Schott, *NAFTA: An Assessment*, p. 37, and Scheinman, "Corporate Strategy, Globalization and NAFTA," pp. 347–348, for optimistic views on the growth potential of the Mexican market.

52 To the extent that Japanese producers do not pass the full impact of the yen increase through in higher prices in the United States, the evidence of dumping of Japanese cars in the US market is stronger, in that the gap between prices in Japan and prices in the United States widens. As a result, the Big Three are again threatening to launch an antidumping suit against Japan, and have asked the Clinton administration to monitor prices and sales of Japanese vehicles. See Keith Bradsher, "Detroit Seeks to Monitor Japan's US Auto Sales," *New York Times*, September 17, 1993, p. C2.

53 David Woodruff and Larry Armstrong, "Sticking It to Japan with Sticker Shock," *Business Week*, September 6, 1993, p. 26.

54 Jacqueline Mitchell, "Auto Makers Plan to Raise Output 12.7 percent in Quarter in Hopes of Further Recovery," *Wall Street Journal*, September 17, 1993, pp. A2, A6.

55 See Womack, Jones, and Roos, *The Machine That Changed the World*, and a number of the articles in Molot, ed., *Driving Continentally*.

56 See William Watson, *The Economic Impact of the NAFTA*, C.D. Howe Institute Commentary 50 (Toronto: C.D. Howe Institute, 1993). Some estimates of unit labor costs can be found in Lorraine Eden, "Who Does What after NAFTA? Location Strategies of US Multinationals," in Lorraine Eden, ed., *Multinationals in North America*, Investment Canada Research Series, vol. 3 (Calgary: University of Calgary Press, forthcoming).

57 See, for example, United States, Congress, Office of Technology Assessment (OTA), *US-Mexico Trade: Pulling Together or Pulling Apart?* (Washington, DC: Office of Technology Assessment, 1992), p. 145. The OTA estimates that the labor costs associated with assembling a vehicle in the United States are US$700, compared with $140 in Mexico (a difference of $560 favoring a Mexican location). However, shipping and inventory costs are $1,040 in Mexico, compared with $320 in the United States (a difference of $720 favoring a US location). In addition, parts are $250 more expensive in Mexico. Thus, even with a large difference in labor costs, assembly is estimated to be $410 cheaper at the US location (that is, $720 + $250 – $560).

58 For more details, see Joseph White and Neal Templin, "Auto Pact Leaves GM Hard Choice: Go Along or Confront the Union," *Wall Street Journal*, September 17, 1993, pp. A1, A6.

59 Andrea Adelson, "GM to Sell Parts Plants to Newly Formed Group," *New York Times*, September 18, 1993, p. 19.

60 Neal Templin, "Chrysler Faces Braking If Canadians Go on Strike," *Wall Street Journal*, September 9, 1993, pp. C1, C2.

61 Neal Templin and Robert Simison, "GM Is Selected as 2nd Target by Union in Canada; UAW picks Chrysler in US," *Wall Street Journal*, September 21, 1993, p. A5.

62 Hufbauer and Schott, *NAFTA: An Assessment*, p. 43.

63 Richard Harris and David Cox, "North American Free Trade and Its Implications for Canada: Results from a CGE Model of North American Trade," in United States International Trade Commission, *Economy-Wide Modeling of the Economic Implications of a FTA with Mexico and a NAFTA with Canada and Mexico*, USITC Publication 2508 (Washington, DC: USITC, May 1992).

64 Linda Hunter, James Markusen, and Tom Rutherford, "US-Mexico Free Trade and the North American Auto Industry: Effects on the Spatial Organization of Production of Finished Autos," *The World Economy* 15 (January 1992): 65–82.

65 *Desrosiers Automotive Reports*, August 31, 1993, table 1.

66 Johnson, "NAFTA and the Trade in Automotive Goods," pp. 111–13.

67 *JEI Report* 32B (Japan Economic Institute, Washington, DC), August 21, 1992.

68 Johnson, "The Effect of the Canada-US Free Trade Agreement on the Auto Pact."

69 Many commentators expect the NAFTA to cause investment diversion, not from Canada, but from East Asia, to Mexico, as US multinationals shift their parts production closer to their assembly sites.

70 John Saunders, "Simpson Cuts Kentucky Deal," *Globe and Mail* (Toronto), July 24, 1993, p. B1.

71 Lorraine Eden and Maureen Appel Molot, "Continentalizing the North American Auto Industry," in Maxwell Cameron and Ricardo Grinspun, eds., *The Political Economy of a North American Free Trade Area* (New York: St. Martins Press, 1993).