

The Challenge of NAFTA: Canada's Role in the North American Auto Industry

by Lorraine Eden and Maureen Appel Molot

Since 1985, the Canadian automotive industry¹ has had to cope with a number of challenges: a severe recession in North America; additional competition for market share from new assembly facilities by foreign, primarily Japanese, transplants; plant closures and labor force reductions by the Big Three (General Motors, Ford, and Chrysler) assemblers and parts producers; the introduction of just-in-time or lean production methods; and the 1989 Canada-U.S. Free Trade Agreement (CUSFTA).

With the implementation of the North American Free Trade Agreement (NAFTA) on January 1, 1994, the Canadian auto industry now faces an additional challenge: by 2003 when NAFTA is fully phased in, the North American auto industry will consist of Canada, the United States, and Mexico, and production

will be integrated on a continental basis. What will Canada's role be in the emerging North American auto industry?

Because the Canadian automotive industry accounts directly and indirectly for one of seven jobs in Canada (one in six in the

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province of Ontario), its strength is critical to the overall health of the Canadian economy. The Canadian auto industry is stronger in 1994 than it has been for some years, primarily because of exports to the United States. Although the Canadian market constitutes approximately 9 percent of the total Canada-U.S. market for vehicles, Canadian assemblers produce almost one in five vehicles sold in North America. In other words, about 85 percent of Canadian auto production, both vehicles and parts, is exported.² Given this level of exports, in calendar year 1994 Canada will surpass Japan as the biggest exporter of vehicles to the United States.³

The real challenge for the Canadian automotive industry during the remainder of the 1990s will be to retain its share of the bilateral Canada-U.S. market as the industry continues the trend toward a continental organization of production. In addition, Canadian vehicle and parts producers will want to increase their sales in Mexico. But how well is the Canadian automotive industry positioned to compete in the new North American context? Will the Big Three continue to assemble large numbers of new vehicles in Canada? How will the transplants adjust to the NAFTA rules of origin? Will Canadian parts producers continue to be competitive?

This article will address these questions by looking at how the Canadian automotive industry has adapted to the realities of continental competition since 1985. The article begins with a statistical overview of the Canadian automotive industry from 1985 to 1993 and continues with an analysis of the positions of the key industry players—the Big Three vehicle assemblers, the Japanese transplant assemblers, the auto parts producers, and labor. It then briefly reviews the automotive provisions of NAFTA, focusing on Canada, and lastly analyzes the challenges NAFTA presents for the Canadian auto industry over the next 10 years.

There is reason for cautious optimism about the future of the Canadian auto industry. NAFTA continues the process of continental integration begun under the 1965 Canada-U.S. Auto Pact and more recently under CUSFTA. Under NAFTA, the Canadian auto industry will be challenged to preserve its share of production, value added, and employment. Canada's ability to compete in the new continental auto industry will depend on decisions about vehicle assembly made by multinational auto firms, all of which are headquartered outside Canada, and on the continuing cost competitiveness of Canadian-based assemblers and parts producers.

A STATISTICAL PROFILE OF THE CANADIAN AUTO INDUSTRY, 1985-93

Before anticipating how various segments of the Canadian auto industry might respond to NAFTA, it is useful to discuss changes in the industry over the past decade and the economic environment of the industry in 1994.

Production and Sales

Although the recovery in the United States appears firm, the recession has been slow to end in Canada. However, the Canadian auto industry enters the NAFTA phase-in period healthier than it has been in several years. More important, production in Canada and the United States reached a five-year high in 1993, and projections suggest that the recovery in the industry will continue.

From 1986 to 1991, North American production of motor vehicles (cars, trucks, and buses) fell from 13.5 million units to a low of 11.7 million units (see Table 1). This decline mirrored the fall in U.S. production between 1986 and 1991. Production then recovered to 13 million units in 1993. In Canada, however, production remained relatively constant at 1.8-1.9 million units, rising in 1992 and 1993 to 2 million. Mexican production, although small (not topping 1 million units until 1992), rose steadily from 1986 to 1993.

These percentage changes in volume are reflected in the country shares of North American production.⁴ The U.S. share fell from 83.7 percent in 1986 to 75 percent in 1993. This fall mirrored the rise in Canada's share (from 13.8 percent to 17 percent) and in Mexico's share (from 2.5 percent to 8 percent). Canadian-made vehicles now account for a significant part of North American vehicle production. Assemblers located in Canada produced approximately 2.2 million vehicles in 1993, up from 1.9 million in 1992, and they anticipate that by the end of 1994 they will have produced more than 2.5 million cars, minivans, and trucks.⁵

Table 2 (p. 60) provides statistics on North American sales from 1986 through 1993. As it shows, total sales fell from 18 million units in 1986 to 14.5 million units in 1991, with a small recovery to 15 million in 1992. The decline was due primarily to the decline in U.S. sales, which fell from 16.3 million units in 1986 to 12.5 million units in 1991, recovering to 13.1 million in 1992. Canadian sales also fell over the period, from 1.5 million units to 1.2 million units. Mexican sales rose steadily, from 0.16 million units to 0.71 million units, but the increase was too small to affect the total trend. In

TABLE 1
North American Motor Vehicle Production, 1986-93
(Thousands of Units)

Year	Canada			U.S.			Mexico			Total Production		
	Total	Share of Total	% Change in Output	Total	Share of Total	% Change in Output	Total	Share of Total	% Change in Output	Total Output	Total Output	% Change in Output
1986	1,859	13.8	- 3.68	11,317	83.7	- 2.84	341	2.5	-14.32	13,517	13,517	-3.28
1987	1,648	12.7	-11.35	10,908	84.2	- 3.61	395	3.0	15.84	12,951	12,951	-4.19
1988	1,977	14.4	19.96	11,197	81.8	- 2.65	508	3.7	28.61	13,682	13,682	5.64
1989	1,940	14.5	- 1.87	10,851	80.9	- 3.09	630	4.7	24.02	13,421	13,421	-1.91
1990	1,948	15.5	0.41	9,780	78.0	- 9.87	804	6.4	27.62	12,532	12,532	-6.62
1991	1,887	16.1	- 3.13	8,819	75.4	- 9.83	989	8.5	23.01	11,695	11,695	-6.68
1992	1,958	15.4	3.76	9,703	76.1	10.02	1,083	8.5	9.50	12,744	12,744	8.97
1993*	2,200	17.0	12.36	9,774	75.0	0.73	1,070	8.0	- 1.20	13,040	13,040	2.32

* Preliminary estimates.

Sources: Based on data from Industry, Science and Technology Canada (ISTC), *Statistical Review of the Canadian Automotive Industry, 1993 Edition* (Ottawa, 1993), p. 16; and various issues of *Automotive News*.

TABLE 2
 North American Motor Vehicle Sales, 1986-93
 (Thousands of Units)

Year	Canada			U.S.			Mexico			Total		
	Total	% Share of Total	% Change in Sales	Total	% Share of Total	% Change in Sales	Total	% Share of Total	% Change in Sales	Total Sales	% Change in Sales	Total Sales
1986	1,509	8.3	N/A	16,316	90.2	N/A	159	1.4	N/A	18,084	N/A	N/A
1987	1,526	9.0	1.1	15,200	89.6	- 6.8	248	1.5	- 4.2	16,974	-6.1	16,974
1988	1,563	8.8	2.4	15,788	89.2	3.9	342	1.9	37.9	17,693	4.2	17,693
1989	1,484	8.8	- 5.1	14,845	88.5	- 6.0	446	2.7	30.4	16,775	-5.1	16,775
1990	1,314	8.2	-11.4	14,161	88.4	- 4.6	545	3.4	22.2	16,020	-4.5	16,020
1991	1,290	8.9	- 1.8	12,539	86.6	-11.5	643	4.4	18.1	14,473	-9.7	14,473
1992	1,228	8.2	- 4.8	13,117	87.2	4.6	707	4.7	9.9	15,052	4.0	15,052
1993*	1,190	N/A	- 3.0	14,200	N/A	8.3	N/A	N/A	N/A	N/A	N/A	N/A

*Preliminary estimates.

Sources: Based on data from *Ward's Automotive Yearbook, 1993* (Detroit: Ward's Communications); Motor Vehicle Manufacturers of America (MVMA), *MVMA World Motor Vehicle Data* (Washington, D.C.: MVMA, 1992); and various issues of *Automotive News*.

terms of percentage share, the U.S. share of North American sales fell slightly from 90 percent to 87 percent over the period, the Canadian share stayed at 8-9 percent, and the Mexican share rose from 1.4 percent to almost 5 percent of the market.

Domestic Canadian sales of new vehicles in 1993 and 1994 have been less robust than those in the United States; in fact, 1993 was the fifth consecutive year of declining Canadian sales. The main reasons for the drop were the continuing decline in sales by the Big Three and uneven sales by Japanese manufacturers. The rising value of the yen against the dollar translated into higher prices both for imported vehicles and for the components used in vehicles assembled in Canada.⁶

As shown in Table 3, the Big Three's Canadian sales of new passenger cars come from domestically (North American) produced cars plus offshore imports from foreign subsidiaries and joint ventures carried under Big Three labels ("badged" or "captive" imports). The Big Three's combined share fell from 68.1 percent (66.7 percent North American plus 1.4 percent captive imports) of the Canadian market in 1985 to 61.9 percent (54.5 percent plus 7.4 percent) in 1992 (note the rise in captive imports as a share of the Big Three's total sales). Canadian sales also come from Asian and European transplant production and from vehicles imported by these transplants. From 1985 to 1992, North American-produced Asian transplant cars sales rose from 1.8 percent to 8.6 percent of all new car sales in Canada, while sales of imports remained relatively constant at 29-30 percent.

Using data from Tables 1 and 2, Figure 1 (p. 63) plots the three countries' shares of North American production and sales of motor vehicles from 1986 to 1992. The picture is clear: the United States is the *hub* or *core market*, containing by far the largest share of the North American auto industry, and Canada and Mexico are *spokes* or *secondary markets*.⁷ U.S. demand for motor vehicles is supplied through excess production in Mexico and Canada—that is, the two spokes produce more vehicles than they sell locally and export their surplus to the United States.

U.S. sales remained relatively flat over the period, while U.S. production as a share of total North American production declined steadily. During the same period, production by the northern spoke, Canada, rose and sales stagnated. In the southern spoke, however, Mexican production and sales shares both rose. In fact, by 1992, the Mexican share of North American production (8.5 percent) was slightly larger than the Canadian share of North American sales (8.2 percent).⁸ In short, the current strength of the

TABLE 3

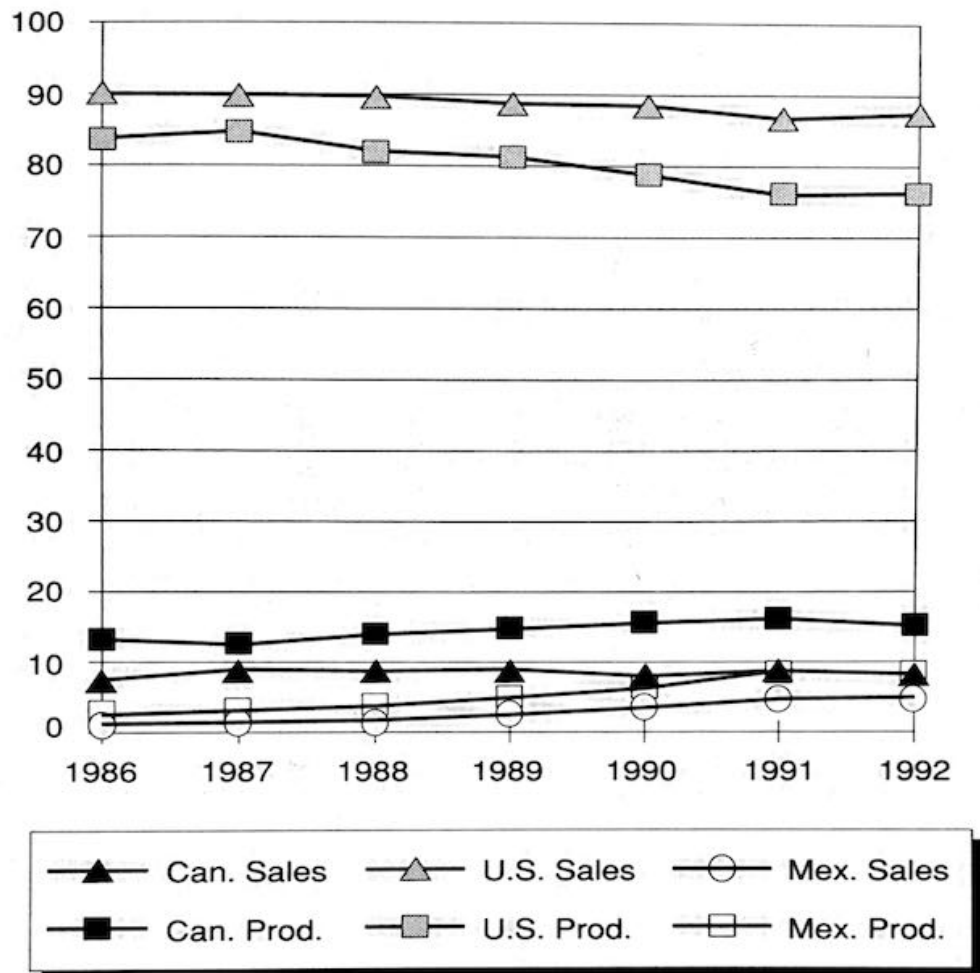
Passenger Car Sales in Canada by Source, 1985-92

Year	Big Three, North America			Big Three, Captive Imports			Transplants*			Imports		
	% Share of Market	% Change in Sales	% Share of Market	% Change in Sales	% Share of Market	% Change in Sales	% Share of Market	% Change in Sales	% Share of Market	% Change in Sales	% Share of Market	% Change in Sales
1985	66.7	N/A	1.4	N/A	1.8	N/A	30.1	N/A				N/A
1987	63.6	-10.9	5.1	N/A	1.9	- 0.3	29.4	- 8.7				- 8.7
1989	62.8	- 8.3	6.0	9.7	4.0	100.7	27.2	-14.1				-14.1
1990	57.9	-17.3	6.0	-10.2	6.5	43.8	29.7	- 2.1				- 2.1
1991	55.4	- 5.5	6.8	12.4	8.0	21.2	29.8	- 0.9				- 0.9
1992	54.5	-10.2	7.4	- 1.4	8.6	- 1.3	29.5	- 9.5				- 9.5

* Includes Japanese firms as well as Volvo, Volkswagen (to 1989), and Hyundai (from 1990).

Source: Based on data from *Ward's Automotive Yearbook*, 1987, 1989, 1991, and 1993.

FIGURE 1

Canadian, U.S., and Mexican Shares of North American Production and Vehicle Sales, 1986-92

Canadian auto industry is a function of demand in the United States. Thus, in the first half of 1993, as a result of the growth of U.S. demand for new vehicles, Canada's trade surplus with the United States in auto products was double that of the same period in 1992.

Trade Patterns

Canada has traditionally run a deficit in auto parts trade and a surplus in motor vehicles, reflecting the industry's post-Auto Pact function of primarily assembling vehicles for sale in Canada and the United States. The surpluses in trade in cars and trucks, along with the deficit in parts trade, rose over the 1985-92 period (see Table 4). The overall trade balance fluctuated from a deficit of

TABLE 4
Canadian Trade in Automotive Products by Category, 1985-92
(In CAN\$ Million)

Year	Cars		Trucks and Vans		Auto Parts		Trade Balance (X-M)	
	Exports (X)	Imports (M)	Exports (X)	Imports (M)	Exports (X)	Imports (M)		
1985	\$15,316	\$11,293	\$4,023 [6,711]	\$2,950	\$3,659 [3,852]	\$11,819	\$18,897	\$ 604 [4,637]
1988	16,482	12,179	4,303 [7,721]	3,441	4,069 [4,287]	12,098	21,586	-1,116 [3,804]
1989	15,105	11,774	3,331 [6,821]	3,126	5,088 [5,239]	12,035	20,469	- 15 [5,706]
1990	16,315	10,664	5,651 [9,292]	3,114	4,963 [5,248]	10,480	19,092	2,002 [8,417]
1991	16,513	11,665	4,848 [9,363]	3,221	4,534 [4,752]	9,102	18,442	42 [7,497]
1992	17,837	11,672	6,165 [10,535]	3,254	6,865 [7,271]	10,391	21,518	1,903 [9,587]

Note: Numbers in brackets refer to the Canada-U.S. automotive trade balance.

Source: ITC, *Statistical Review of the Canadian Automotive Industry, 1993 Edition*, pp. 32 and 34.

CAN\$1 billion in 1988 to a surplus of more than CAN\$2 billion in 1990. This generally upward trend in overall trade reflected the strong growth in Canada-U.S. automotive trade: from 1985 to 1992, it more than doubled, from CAN\$4.6 billion to CAN\$9.6 billion. The U.S. market is of overwhelming importance as a destination for Canadian auto exports (see Table 5). Canada sends almost 100 percent of its car, truck, and parts exports to the United States. By contrast, the largest non-U.S. category, parts exports to Mexico, accounts for less than 1 percent of all parts exports.

However, as Table 6 (p. 67) shows, the situation for Canadian auto imports is different. While Canada relies heavily on imports from the United States, imports also come from Japan, Mexico, and other countries. The most diversified category is passenger cars, where in 1991 the U.S. share of all imports was 60 percent and Japan's was 26 percent. Mexico represented less than 6 percent of imports not only of passenger cars, but also of trucks and parts. Table 6 also shows the share of 1991 imports that came into Canada under Auto Pact regulations, and thus were automatically duty free, relative to non-Auto Pact imports, whose duty-free status depended on whether the importers qualified for Canada's duty drawback and duty remission programs. These programs are now being phased out under NAFTA. Imports from the United States and Mexico generally qualify as Auto Pact imports in all three product categories (cars, trucks, and parts), while imports from Japan and other countries are primarily non-Auto Pact.

Investment Activity

Statistics on capital (new) and repair (replacement) expenditures for the motor vehicle and auto parts subsectors of the Canadian auto industry are provided in Table 7 (p. 68). From 1985 to 1993, annual capital expenditures in the assembly sector ranged from a low of CAN\$663.9 million in 1985 to a high of CAN\$1,911.6 million in 1988. Spending in the parts sector was one-third to one-half the level in the assembly sector, varying from a low of CAN\$339.4 million in 1985 to a high of CAN\$753.2 million in 1987. While new investment spending in both vehicles and auto parts was very strong in 1992 and 1993, it did not reach the earlier peaks. The annual rates of change in total expenditures in the automotive industry showed very rapid growth in 1985 and 1986, generally followed by declines over the 1987-90 period, and growth again beginning in 1990 (see Figure 2, p. 69).

TABLE 5

**Canadian Automotive Exports by Country and Category, 1991
(Thousands of CAN\$, FOB)**

	Cars	Trucks	Parts	Total
U.S.				
Total U.S.	\$16,360,540	\$7,594,888	\$8,462,838	\$32,418,266
U.S. as % of total	99.04%	98.94%	93.84%	97.61%
Mexico				
Total Mexico	80	2,048	82,713	84,841
Mexico as % of total	0.00	0.03	0.92	0.26
Japan				
Total Japan	6,360	1,142	48,817	56,319
Japan as % of total	0.04	0.01	0.54	0.17
Others				
Total Others	151,446	77,798	423,723	652,967
Others as % of total	0.92	1.01	4.70	1.97
Total Exports	16,518,426	7,675,876	9,018,091	33,212,393

Note: Cars are defined as passenger cars; trucks include all weights of trucks, buses, and off-highway trucks.

Source: Calculated from the ISTC automotive data base.

Repair expenditures were much smaller than new spending over the period, particularly in the vehicle sector, where much of the new investment was due to the opening of new Asian assembly operations in the late 1980s. Capital expenditures ranged from a low of 66 percent of total expenditures to a high of 84 percent (see Table 7, p. 68). Investment spending by the motor vehicle sector peaked at 74 percent of expenditures in 1986 and then generally fell over the period to 60 percent in 1993 (see Figure 2, p. 69).

THE KEY INDUSTRY PLAYERS

The following sections analyze the key players—the Big Three and Asian transplant assemblers, the auto parts producers, and labor—in the Canadian auto industry, focusing on their positions at the beginning of 1994.

TABLE 6

**Canadian Automotive Imports by Country and Category, 1991
(Thousands of CAN\$, FOB)**

	Cars	Trucks	Auto Parts	Total
U.S.				
Auto Pact	\$6,678,817	\$2,481,906	\$12,643,570	\$21,804,293
Non-Auto Pact	317,709	246,870	2,510,975	3,075,554
Total U.S.	6,996,526	2,728,776	15,154,545	24,879,847
U.S. as % of total	59.98%	89.67%	82.47%	75.20%
Mexico				
Auto Pact	525,525	43,063	1,005,838	1,574,426
Non-Auto Pact	147,332	87	23,692	171,111
Total Mexico	672,857	43,150	1,029,530	1,745,537
Mexico as % of total	5.77	1.42	5.60	5.28
Japan				
Auto Pact	255,878	25,792	286,806	568,476
Non-Auto Pact	2,790,204	215,788	951,454	3,957,446
Total Japan	3,046,082	241,580	1,238,260	4,525,922
Japan as % of total	26.11	7.94	6.74	13.68
All Others				
Auto Pact	259,421	3,996	548,091	811,508
Non-Auto Pact	689,849	0	406,134	1,121,566
Total Others	949,270	29,579	954,225	1,933,074
Others as % of total	8.14	0.97	5.19	5.84
Auto Pact	7,719,641	2,554,757	14,484,305	24,758,703
Non-Auto Pact	3,945,094	488,328	3,892,255	8,325,677
Total Imports	11,664,735	3,043,085	18,376,560	33,084,380

Note: Cars are defined as passenger cars; trucks include light, medium, heavy, and off-highway trucks and buses.

Source: Calculated from the ISTC automotive data base.

The Big Three Assemblers

The Big Three auto producers have light vehicle assembly plants in Ontario and Quebec: General Motors has three plants in Oshawa, Ontario, and one in Sainte Therese, Quebec;⁹ Ford has two plants in Oakville and one in St. Thomas, Ontario; and

TABLE 7

Capital and Repair Expenditures in the Canadian Automotive Industry, 1985-93

Year	Industry Subsector	Capital Expenditures by Subsector (CAN\$ Mill.)	Repair Expenditures by Subsector (CAN\$ Mill.)	% Change in Capital & Repair Exp., All Subsectors	Capital Expenditure as % of Capital/Repair Exp., All Subsectors	Vehicle Expenditure as % of Repair/Capital Exp., All Subsectors																																																																												
1985	Vehicles	\$ 663.9	\$203.9	76.16%	67.11%	58.05%																																																																												
	Auto Parts	339.4	287.7				1986	Vehicles	1,908.6	188.5	89.66	83.27	73.96	Auto Parts	452.3	285.9	1987	Vehicles	1,544.0	188.2	- 3.67	84.11	63.42	Auto Parts	753.2	245.8	1988	Vehicles	1,911.6	228.1	15.21	81.29	68.00	Auto Parts	646.3	360.7	1989	Vehicles	1,422.7	244.6	-16.39	76.49	63.38	Auto Parts	589.6	373.9	1990	Vehicles	797.4	233.9	-30.25	66.39	56.20	Auto Parts	421.0	382.8	1991	Vehicles	1,242.2	205.5	20.64	74.28	65.39	Auto Parts	402.2	364.0	1992	Vehicles	1,492.4	172.2	15.16	78.05	65.29	Auto Parts	497.6	387.3	1993	Vehicles	1,447.0	176.9	5.74	79.57
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Note: 1992 figures are preliminary actual; 1993 figures are preliminary estimates.

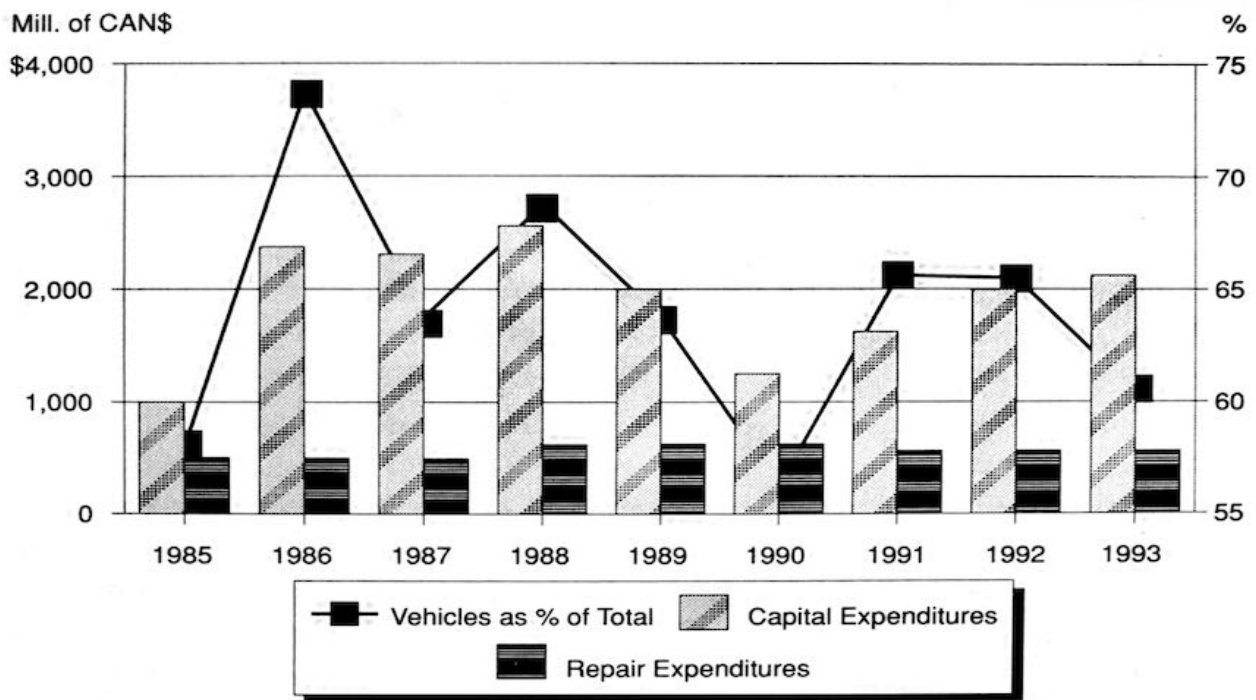
Source: Calculations are based on Statistics Canada, *Investment Statistics—Manufacturing Sub-Industries Canada*, Cat. No. 61-518, and *Intentions*, Cat. No. 61-214 (Ottawa: Supply and Services Canada).

Chrysler has one plant in Bramalea and two plants in Windsor, Ontario.

Under the Canada-U.S. Auto Pact, vehicles and original equipment parts entering Canada from any country, including the United States, do so duty free as long as they are imported by a qualifying Canadian manufacturer. To qualify, a manufacturer must have been producing in Canada in 1964. Four assembly firms, the Canadian subsidiaries of the Big Three and Volvo, are qualified, as are a number of truck manufacturers and parts producers.¹⁰ The Canadian government later assigned specific duty remission

FIGURE 2

Canadian Auto Industry Investment, 1985-93



orders to any firm that could meet performance requirements roughly similar to the safeguards. American Motors and CAMI (a Suzuki-GM joint venture) both qualified as Auto Pact firms in this manner. The Auto Pact commitments were retained in CUSFTA and NAFTA, although as we argue below, the Auto Pact has become less important.

Table 8 provides data on Canadian value-added (CVA) commitments under the Auto Pact for selected model years from 1965 to 1992. The first commitment or safeguard is that a "qualifying manufacturer" has to maintain a ratio between the net value of vehicles produced in Canada and the net value of vehicles sold in Canada of at least the higher of 75/100 or the manufacturer's actual ratio in the base year 1963-64. Because production can be for domestic sale or export and sales can be from either production or import, this ratio (which has generally been interpreted as producing one vehicle in Canada for every vehicle sold in Canada) can be met by either increasing exports or reducing imports. As Table 8 shows, the net production to net sales-value ratio well exceeded 75/100 over the whole period: in 1992 the ratio for cars was 166/100; the ratio for trucks was even higher, 369/100. Because of

TABLE 8

Canadian Safeguard Commitments Under the Auto Pact, by Model Year, 1965-92

	1965	1980	1985	1987	1988	1989	1990	1991	1992
Cars: Net Production to Net Sales-Value Ratio (required ratio $95/100$)*	100	106	174	162	153	138	158	170	166
Trucks: Net Production to Net Sales-Value Ratio (required ratio $75/100$)*	94	115	192	159	133	188	197	203	369
Canadian Value Added (CVA) as % of Cost of Sales*	63.0%	53.0%	78.0%	66.0%	72.0%	74.0%	85.0%	85.0%	80.0%
Parts CVA as % of Total CVA**	64.0	68.3	79.0	74.7	73.9	70.9	71.7	69.5	66.8
In-vehicle CVA as % of Total CVA**	90.5	57.9	50.9	45.2	54.3	53.5	58.9	56.6	65.1

* For 18 major manufacturers, compiled from company Auto Pact reports to ISTC.

** For GM, Ford, Chrysler, and CAMI.

Source: ISTC, *Statistical Review of the Canadian Automotive Industry, 1993 Edition*, pp. 35-37.

the potential costs of not meeting the production to sales safeguard, the Big Three pay close attention to their Canadian production levels and through the 1970s augmented production capacity in Canada.¹¹

The second commitment under the Auto Pact relates to CVA. It is contained not in the agreement itself but in a Memorandum of Understanding signed between the auto firms and the Canadian government in which the Big Three undertook to ensure that the amount of CVA (measured by aggregating certain domestic manufacturing costs) for all classes of vehicles assembled in Canada was at least as great as the amount achieved in the base year. These CVA commitments are 60 percent for passenger cars, 50 percent for specified commercial vehicles, and 40 percent for heavy-duty trucks.¹²

As Table 8 shows, CVA as a percent of the cost of sales has varied from a low of 53 percent in 1980 to a high of 85 percent in 1990 and 1991.¹³ For the Big Three and CAMI, parts CVA as a percent of total CVA has also remained high, in the 65-75 percent range. In-vehicle CVA, however, fell from its 1965 level of 91 percent to 45 percent in 1987; but since then the ratio has climbed rapidly, rising to 65 percent in 1992. Thus, the Big Three assemblers (as well as Volvo and CAMI) have well exceeded their Auto Pact commitments.

Over the past decade, the Big Three have addressed the excess capacity in the North American auto industry by closing a number of plants and rationalizing production among the rest. Canadian Big Three plants have been or will be allocated the production of some of the vehicles currently most popular with consumers—for example, Chrysler's LH sedans and minivans and GM's Firebirds and Camaros. This is one reason Big Three production in Canada has remained more buoyant than their production in the United States.

Asian Transplant Assemblers

There are currently four transplant vehicle assembly operations in Canada: CAMI Automotive Ltd. (the Suzuki-GM joint venture in Ingersoll, Ontario, operational in 1989); Toyota Motor Manufacturing Canada Inc. (Cambridge, Ontario, 1988); Honda of Canada Manufacturing, Inc. (Alliston, Ontario, 1986); and Volvo Canada Ltd. Manufacturing Division (Halifax, Nova Scotia, 1963). The future of the fifth transplant, Hyundai Auto Canada Ltd. (Bromont, Quebec, 1989), which closed in September 1993 for re-

tooling, is uncertain; although Hyundai originally intended to re-open in 1996, it appears unlikely that this will happen.¹⁴ Except for Volvo, the transplants all came to Canada within the past 10 years, creating a "bunching" of new Asian-owned direct investment in the Canadian auto industry.

The Asian transplants moved to Canada for almost the same reasons they moved to the United States in the mid 1980s: voluntary export restraints (VERs); the rising value of the yen; and Canadian subsidy and duty drawback programs.¹⁵ Just as with the U.S. VERs program launched in 1981, Canada negotiated a VERs agreement with Japan to reduce car and truck imports from their 1981 level of 207,000 vehicles to 162,000 units between 1983 and 1984. Substituting imports of parts plus onshore assembly of vehicles for vehicle imports was one way of avoiding the VERs. In addition, the rising yen and the falling Canadian dollar during this period meant that the cost of imported vehicles rose relative to onshore production.

Financial incentives were another reason the Asian transplants moved to Canada. Provincial and local governments, particularly in Ontario and Quebec, competed to offer subsidies as a means of attracting plants to their locations. The Asian transplants also qualified for Canada's duty drawback program, under which producers can import parts duty free when assembled for reexport. They negotiated individual duty remission schemes allowing the duty-free importation of vehicles in return for promising to meet certain conditions related to production and/or exports similar to those in the Auto Pact. The expectation of a Canada-U.S. free trade agreement may also have played a role in inducing the Asian transplants to Canada.

In 1986, the Asian transplants produced 10,800 vehicles in Canada; by 1992 this number had risen to 314,000, with a potential capacity output of 460,000 units. Between 1986 and 1992, the Asian transplants' share of Canadian passenger car production increased from 1 percent to 27 percent, and their share of light truck production rose from zero to 4.3 percent.¹⁶

Although all transplant producers are planning to increase the sourcing of parts within North America (as part of their adjustment to the new trade regime created by NAFTA), they face more serious competition from the Big Three in the immediate future than they have for at least a decade. Toyota and Honda both anticipate an increase in their Canadian production, but Honda's major growth in overall North American output will occur in the United States.¹⁷

Auto Parts Producers

The automotive parts industry in Canada comprises the in-house producers owned by the Big Three, a few Canadian-owned multinational firms, a number of foreign-owned parts companies with at least operations in Canada and the United States, and many smaller Canadian-owned firms that supply the Big Three.¹⁸ Chrysler has 3 in-house parts facilities, Ford has 6, and General Motors has 4; all 13 are located in Ontario. Some of the Canadian-owned auto parts multinationals include A.G. Simpson (heavy stampings at five Ontario plants), Magna International (seatings, stampings, and plastic and steel parts at four Ontario plants), Stelco (fasteners and forgings at three Ontario plants), and Woodbridge Foam (seats and foam rubber components at four plants in Ontario and one plant in Quebec). The larger foreign-owned parts companies include Hayes-Dana (drive shafts, frames, and axles at seven Ontario plants and one Quebec plant), Lear Seating (seats at four Ontario plants), PPG Canada (glass, adhesives, and coatings in three Ontario plants), and Rockwell International (springs, brakes, and stampings at five Ontario plants).

Sales by Canadian parts producers in 1993 increased by 17 percent from their 1992 levels and are expected to rise by another 9 percent in 1994.¹⁹ The percentage of total North American original equipment parts accounted for by Canadian parts producers has also risen over the last decade, from 7.8 percent to 11-12 percent.²⁰

The Canadian parts sector is enjoying the benefits of both the growth in overall North American vehicle production and the location of a healthy segment of this production in Canada. It is also benefiting from GM's decision to produce fewer of its own components. By May 1993, 172 Canadian companies had won US\$725 million worth of new work from General Motors.²¹

Canadian parts producers have become much more efficient in recent years. The parts industry added some 10,000 jobs during 1993, for a total of 81,000. Although this number is well below the peak of 97,000 employed in 1989,²² the value of output per worker reflects an improvement in productivity of 30 percent.²³ Approximately 50 Canadian parts firms have closed in the past few years, many of them U.S.-based companies that consolidated their operations in the United States. However, the shakeout is seen as being largely complete.²⁴

Investment in the parts sector has averaged over CAN\$900 million annually since 1985.²⁵ As a result of new efficiencies, cost advantages from the Canadian health care system, and the lower

Canadian dollar,²⁶ Canadian suppliers have been winning business away from their U.S. competitors.²⁷ That the North American auto sector purchases much of its tools, dies, and molds from the Canadian parts sector is evidence of the level of skill that now exists in this industry.

Labor

Trends in Canadian auto employment over the past decade are illustrated in Table 9. Jobs in assembly peaked at 56,900 in 1985, fluctuated during the intervening years, then fell to 53,900 in 1992. Close to 55,000 workers had assembly jobs in mid 1993, up some 1,000 over the previous year. In the parts sector, employment peaked at 96,300 in 1989 but by 1992 had fallen dramatically to 71,800, a drop of 25 percent. During the same period, employment in vehicle assembly as a percent of employment in the industry as a whole (parts plus assembly) varied between 36 percent and 43 percent.

In Fall 1993, at the end of contract talks with the Big Three, the Canadian Auto Workers (CAW) signed a series of three-year agree-

TABLE 9
Employment in the Canadian Automotive Industry, 1985-92

Year	Total Employment in Motor Vehicle Assembly	Annual % Change in Assembly Employment	Total Employment in Auto Parts	Annual % Change in Auto Parts Employment	Employment in Vehicle Assembly as % of Total Employment
1985	56,900	28.44%	84,400	51.53%	40.27%
1986	53,500	- 5.98	85,200	0.95	38.57
1987	52,000	- 2.80	88,800	4.23	36.93
1988	52,700	1.35	94,300	6.19	35.85
1989	55,400	5.12	96,300	2.12	36.52
1990	56,100	1.26	86,400	-10.28	39.37
1991	53,800	- 4.10	74,100	-14.24	42.06
1992	53,900	0.19	71,800	- 3.10	42.88

Source: Calculated from data in ISTC, *Statistical Review of the Canadian Automotive Industry, 1993 Edition*, p. 40.

ments. Under the terms of these agreements, CAW members received a 4.5 percent wage increase over three years, higher pensions, additional vacation days, and, where relevant (for example, at the Chrysler minivan plant in Windsor, Ontario), third shifts instead of overtime.

Even though Canadian auto vehicle workers won more than their U.S. counterparts in these negotiations, Canadian wage rates are still lower than those in the United States by anywhere from \$7 to \$14 an hour, depending on the source.²⁸ Much of the difference is a function of the Canadian medical care system, although the lower Canadian dollar has reinforced the labor cost advantage. Union labor accounts for 9-10 percent of vehicle assembly costs.

In sum, the Canadian automotive industry has come through the recession, it has increased its efficiency, and it is ready to compete in the new North American trade environment.

NAFTA'S AUTO PROVISIONS: A CANADIAN VIEW

What the various stakeholders in the Canadian auto industry wanted from the NAFTA negotiations reflected their own positions within the larger North American industry.²⁹

The Canadian Big Three producers' perspective on NAFTA resembled that of their American parents, even though the latter argued that their Canadian operations were being nationally responsive in their demands. With respect to the transplant producers, the Big Three wanted as much protection from NAFTA as they could get, including higher regional content provisions than CUSFTA contained,³⁰ and a privileged position in the Mexican market during the NAFTA phase-in.

The Canadian parts manufacturers also supported an increase in North American content requirements to 75 percent as well as the inclusion of a CVA provision to protect Canadian suppliers. However, Canadian government opposition to the specific Canadian content provision led the parts producers to drop this request.³¹

Already facing the need to adjust to the 50 percent North American content provisions of CUSFTA, the Asian transplant producers fought any further increase in content requirements under NAFTA. They also sought immediate access to the Mexican market and opposed the stance of the Big Three that would give the latter (plus Nissan and Volkswagen) a privileged position in the Mexican auto market for 15 years.³²

The Canadian government's objectives in the NAFTA auto negotiations reflected the structure of the Canadian auto industry and followed from the positions Canada had adopted during the CUSFTA talks. The government wanted to retain the Canadian safeguards under the 1965 Auto Pact; to gain immediate access to the Mexican market for all Canadian-made vehicles (including those of the Asian transplants) and parts; and to resolve some of the administrative difficulties arising out of the CUSFTA rules of origin by negotiating clearer NAFTA content regulations.

With no domestically owned assemblers, Canada did not differentiate among vehicle producers in the way the United States did. The Asian transplants played an important role in the Canadian economy, particularly in Ontario, and therefore the Canadian government was more sympathetic to their concerns about access to the Mexican market and North American content requirements. Canadian negotiators preferred a 50 percent North American content rule, but in the end they acceded to the higher content requirement (62.5 percent) sought by the United States as part of an overall package that met most of Canada's negotiating objectives.

The Canadian government was largely successful in attaining its goals, although under CUSFTA the Auto Pact safeguards will lose much of their significance by 1998.³³ Duty drawbacks on auto parts for the Asian transplants will be eliminated in 1996, and duty remission orders on vehicle imports will end in 1998.

What Canada did not achieve was access to the Mexican market for Canadian-made Toyotas and Hondas during the NAFTA phase-in period. The Canadian negotiators were satisfied with the NAFTA provision that allows vehicles from new and refitted plants to move duty free within North America with 50 percent rather than 62.5 percent North American content for the first five years of production. The Canadian government had also hoped that the NAFTA talks would consider two other matters on its agenda—market distortions resulting from state government location grants, and consideration of a possible North American auto trade policy regarding Japan. However, since neither of these issues was a priority for the United States, they remained off the table.³⁴

ADDRESSING THE NAFTA CHALLENGE

Even before the conclusion of NAFTA, the Canadian auto industry had moved a long way toward continental trade and investment. The industry underwent considerable restructuring as a

result of the Auto Pact and CUSFTA and also due to the introduction of just-in-time or lean production techniques in parts production and vehicle assembly.³⁵ Since the mid 1980s, Mexican border plants (*maquiladoras*) have been integrated into the sourcing strategies of the Big Three as a result of U.S. and Mexican legislation.³⁶ Auto Pact provisions and tariff reductions under the General Preferential Tariff for developing countries already allow most Mexican exports of automotive products into Canada duty free.

Nevertheless, any change in the regime governing automotive trade and investment will require adjustment. NAFTA's impact on Canadian auto production will be examined by looking at each segment of the industry and highlighting the challenges that the new trade and investment regime will bring both for the auto industry stakeholders and for the Canadian government.

The Big Three Assemblers

How the U.S. multinationals in the auto industry will adjust to NAFTA is a concern in all three countries. Adjustment will probably be less difficult in the Canadian auto industry than in other sectors because Canadian and U.S. plants are already fully integrated as a result of the Auto Pact and CUSFTA.³⁷ In addition, as noted above, U.S. multinationals integrated Mexican production during the 1980s partly through the maquiladora program. Still, some rationalizations, as well as plant closures, are likely to occur.

The Big Three assemblers in Canada are generally pleased with NAFTA's auto provisions; NAFTA will have only a limited effect on them because they are already organized for continental production. They will feel the impact after the full implementation of CUSFTA in 1998 and of NAFTA in 2003, when imports from the United States and then Mexico will enter Canada duty free. Auto Pact benefits will then apply only to imports from nonmember countries. Some incentive will remain, however, for the Big Three to continue vehicle assembly in Canada to retain their eligibility for Auto Pact benefits.³⁸ (See the box on page 78 for an estimate of the value of these duty-free programs.)

One of NAFTA's selling points in Canada was that it would open the Mexican market to imports and foreign direct investment from Canada and the United States. A growing Mexican economy would mean opportunities for Canadian exporters. But it is not clear how much advantage the Canadian Big Three vehicle assemblers will derive from the opening of the Mexican market. Although the Mexican economy has been growing, the rate of growth

VALUING THE DUTY REBATE PROGRAMS

The Big Three

The major regulatory incentive for the Big Three to meet the Auto Pact's safeguards is the duty remission program, under which automotive imports from all countries enter duty free for qualifying producers. In 1991, total Auto Pact (i.e., duty-free) imports by Canada from all countries were \$24,758.7 million, distributed as follows: United States, 88.2 percent; Mexico, 6.4 percent; Japan, 2.3 percent; and all others, 3.3 percent (see Table 6).

Canada's most favored nation (MFN) tariff is currently 9.2 percent. (Since tariff rates vary by commodity and by country, the calculations below should be seen as estimates.) If a 9.2 percent tariff had been levied on these duty-free imports, the maximum duty would have been $0.092 \times \$24,758,703 = \$2,277.8$ million. Thus, the Auto Pact saved qualified producers \$2.3 billion in potential duties. In 1991, the total Canadian duties paid on automotive goods were \$5.8 billion. The Auto Pact savings were therefore worth about 39 percent of the duties actually paid.

Under NAFTA, Canadian imports from the United States after 1998 and from Mexico after 2003 will enter duty free, so the duty remission program will apply only to Auto Pact imports from non-NAFTA countries. After U.S. and Mexican imports are removed from total Auto Pact imports, the safeguards will still save $0.092 \times \$1,379,980$, or \$121 million in duties on imports from nonmember countries. But this is clearly a much smaller saving for Auto Pact members than the estimate of \$2.3 billion pre-NAFTA.

The Asian Transplants

The transplants currently import parts duty free under Canada's duty drawback scheme and vehicles duty free under individual duty remission programs (i.e., non-Auto Pact). Information on the percentage of non-Auto Pact imports that currently receive duty-free treatment is not known. Estimates can be made of an upper and lower bound. Assume that, at a maximum, all non-Auto Pact parts and vehicles in 1991 were brought in duty free by the transplants. The tariff saving would therefore be $0.092 \times \$8,325,677 = \765.96 million. At a minimum, assume that only non-Auto Pact, non-U.S., and non-Mexican imports are made by the Asian transplants. The duty saving falls to $0.092 \times \$5,079,012 = \467.3 million.

Under NAFTA, the duty drawback program expires in 1996 and the duty remission programs in 1998. Therefore, the transplants would be faced with paying duties of between \$467 million and \$766 million. For this reason, the Canadian government reduced the tariff on imported engines and transmissions to zero and on most other parts to 2.5 percent, effective in 1994. The vehicle tariff was left at 9.2 percent. The saving to the Asian transplants, using 1991 data and assuming the parts tariff is 2.5 percent, should range between \$91 million and \$261 million (i.e., $0.067 \times \$1,357,588$ and $0.067 \times \$3,892,255$).

over the past year has been lower than the Mexican government anticipated. Moreover, decisions about which Big Three vehicles will be advertised and promoted in Mexico will be made in the United States rather than in Canada.

Recent decisions by Ford concerning the allocation of vehicle production among its plants in Canada, the United States, and Mexico illustrate how continental considerations will structure the future of both assembly and parts production in Canada. In late 1993, Ford announced that it would build its new compact cars in Mexico as well as in the United States and that it would greatly increase its exports to Mexico. Ford's plans will touch off production shifts in Mexican, Canadian (Windsor, Ontario), and U.S. factories, creating the equivalent of 550 jobs in the United States and Canada and 300 jobs in Mexico. Ford projected that the total number of jobs or "job equivalents" could climb to 6,000 when additional work at its U.S. and Canadian supplier plants as well as overtime were taken into account. In 1993, Ford exported only about 1,500 cars to Mexico from its plants in Canada and the United States, but it expects that number to rise to about 25,000 by the end of 1994 and to 50,000 by 1996.³⁹

The Big Three in Canada are currently enjoying strong sales because they are producing vehicles, such as minivans, that are high in consumer demand. However, a vehicle's production life is limited. Because plant product mandates are decided at head offices and plants within the same corporate family must compete against each other for production opportunities, Canadian assembly plants may not always be allocated attractive vehicle models.

For example, GM is still reducing the number of its assembly facilities. While the plant at Sainte Therese is now producing strong sellers and might even get a third shift, it is located some distance from the auto corridor connecting U.S. highways I-65 and I-75.⁴⁰ This raises questions about its longevity beyond the lives of the models now being produced.

Although in recent years Canadian-based assemblers have produced close to one in five cars made in Canada and the United States, this proportion is not etched in stone and may be vulnerable over the long term, new investments in plant refurbishing notwithstanding. Assemblers in Canada will have to compete to maintain the current North American production ratio.

Asian Transplant Assemblers

The Asian auto assemblers are not pleased with the outcome of the NAFTA. Although they see some improvement in the clarity,

transparency, and predictability of the NAFTA rules of origin, they had opposed any increase in the regional content requirements beyond those of CUSFTA and are unhappy with what they see as their discriminatory treatment during the phase-in period.⁴¹

For the Asian transplants, two issues arise out of NAFTA. Both relate to the costs of assembling vehicles in Canada and therefore to the future attractiveness of Canada as a location for transplant production. The first is the elimination of duty drawback and duty remission programs, and the second is the new North American content requirement. One reason the transplants were originally attracted to Canada was their eligibility for Canadian duty rebates on imported vehicles and parts. But even though the elimination of duty drawbacks has been postponed until 1996 and of duty remission programs until 1998, the cost of doing business in Canada after then will increase for the transplants. They will have to pay the Canadian most favored nation (MFN) tariff on imports from non-NAFTA countries (imports from Mexico and the United States will be duty free if the commodities meet North American content regulations). (See page 78 for estimates of additional costs to the transplants from the loss of the duty rebate programs.)

In October 1993, we hypothesized that in response to the loss of the duty rebates, the transplants could adopt one or a combination of the following strategies: (1) absorb the difference in tariffs and continue producing in Canada; (2) relocate assembly to the United States to protect access to their most important North American market; (3) press the Canadian government to lower its tariffs to U.S. levels; or (4) increase their sourcing of parts from NAFTA members.⁴² We had not known, however, that the Canadian government's decision even before NAFTA was implemented was to reduce the tariffs on imported parts. This was clearly done in response to the concerns expressed by the Asian and other non-North American auto producers.⁴³ Duties on imported parts have been cut either to zero or to 2.5 percent from a previous level of 9.5 percent or higher; the duty on finished vehicles remains at 9.5 percent (although it will drop to 6.1 percent over the next few years as a result of the Uruguay Round negotiations of the General Agreement on Tariffs and Trade).⁴⁴ Indeed, this decision, approved by order-in-council in late Fall 1993, appears to have been one of the factors involved in Toyota's decision to locate a new engine plant in Ontario.⁴⁵ The Big Three have protested that the drop in the parts tariff clearly favors the Asian transplants. It also reduces the U.S. assemblers' motivation to continue meeting the Auto Pact safeguards.⁴⁶

The second issue that concerns the Asian transplants is the new North American content requirement of 62.5 percent. The transplants have eight years to adjust to the higher content rules. Current exchange rates and these new content regulations make it a favorable time for Japanese firms to increase production and sourcing in North America, but how much of this new investment in parts and components is coming to Canada remains to be seen.

Although Asian suppliers have followed assemblers to North America, most have located in the United States.⁴⁷ There are three reasons component producers view Canada as a less attractive location: the assemblers have larger facilities in the United States; state governments in the United States can offer (and have offered) more lucrative location packages than the Canadian provinces; and U.S. labor is less unionized than Canadian labor.⁴⁸

Honda and Toyota believe that their Canadian facilities will be at a distinct future cost disadvantage relative to their plants in the United States. As noted above, Honda has announced an increase in its levels of North American production; however, only a small part of this increase will be in Canada. Toyota has decided to spend approximately CAN\$33 million to build an engine assembly plant to supply its assembly plant in Cambridge, Ontario. The plant will produce about 80,000 1.6- and 1.8-liter engines per year and will employ about 50 people, with the Ontario government providing up to \$1 million for training and capital equipment.

The Canadian government has been trying to persuade Japanese and European automakers to invest in production in Canada, and it sees the Toyota engine investment as an important step. But Toyota's investment is cautious and exemplifies the dilemmas facing Japanese assemblers, the change in Canadian tariff rates notwithstanding. Given bilateral frictions over automotive trade, Toyota is not eager to exacerbate the trade tensions between the United States and Japan. Moreover, augmenting production in the United States ensures access to its major North American market. Even though Toyota has had a wheel-making plant in Canada since 1984 and has now committed itself to a second investment in Canada beyond assembly, it is not clear how much further it is prepared to go.⁴⁹

Future assembly decisions by Asian transplants will be governed by their response to the NAFTA regime and by their overall evaluation of the economic environment in North America. As a result, expansion of Asian transplant assembly capacity is more likely to occur in the United States than in Canada.

Auto Parts Producers

Over the last decade, Canadian parts producers have reaped significant benefits from the Auto Pact production to sales safeguards and from the CVA requirements that generate incentives for assemblers to source production in Canada. Thus, as NAFTA is being implemented, the industry is reasonably robust. But for it to remain so, the parts industry must be able to adapt to continuing technological change. As firms adopt lean production techniques, the number of parts required per automobile is decreasing. The trend to system sourcing, the closer, more integrated style of sourcing characteristic of lean production, has implications for second and third suppliers that used to produce inputs for first-tier suppliers. They will lose business as the design and production of components become more sophisticated.⁵⁰ At this point, few Canadian companies can provide full service—i.e., engineering capabilities, not just “make-to-print” that assemblers are now demanding.

Canadian parts firms have become more efficient at home in recent years, and they have also begun to internationalize their production. Perhaps the most dramatic example is Magna International Ltd., which during 1993 announced acquisitions in Germany and Austria.⁵¹ Magna also has a manufacturing facility in Puebla, Mexico, to supply VW, and it has negotiated a multimillion-dollar contract to supply complete body stampings and other components for BMW’s proposed plant in Spartanburg, South Carolina.⁵²

The investment activities of a second Canadian-owned parts producer, A.G. Simpson Co. Ltd. of Scarborough, Ontario, demonstrate the increasingly continental (i.e., Canadian and U.S.) character of industry sourcing. The company has recently added a stamping plant in Kentucky to its other U.S. locations.⁵³

The internationalization of Canadian parts firms marks a new stage for this sector of the Canadian industry. Prompted by the introduction of lean production techniques, suppliers recognize the importance of a location proximate to assemblers. This is the rationale behind the expansion of Magna International and A.G. Simpson into the United States, to sites that are close to the Big Three as well as to transplant assemblers. Although both companies maintain that their expansion southward will add jobs in Canada rather than take work away from their Canadian facilities, there is no question that the attractiveness of U.S. locations will act as a brake on the growth of sourcing in Canada, particularly if U.S. state governments compete for plants with incentive grants.

The major challenge facing Canadian auto parts producers is whether they will be able to compete for inputs within the overall North American market. The test is particularly critical with respect to the Asian transplants. At issue is whether Canadian parts producers will be able to retain the overall percentage (11-12 percent) of North American production they currently hold and whether investment in new capacity will be made in Canada or in the United States. Long-term competitiveness will depend on three factors: continued sourcing in Canada by the Big Three assemblers; competition that Canadian parts producers might face from Mexican firms; and the potential to serve the transplant assemblers.

Sourcing by the Big Three

Continued sourcing by the Big Three assemblers is critical to the continued health of the Canadian auto parts industry and to the employment it generates. As long as the Big Three in Canada have the mandate to produce vehicles for which there is high demand, and assuming they remain competitive, Canadian parts producers can expect to sell components to these assemblers.

However, it is important to recall the link between the Auto Pact and sourcing in Canada by the Big Three. The Big Three's careful attention to their Auto Pact undertakings has worked to the advantage of Canadian parts producers. The Auto Pact is retained by NAFTA and remains important as a means of allowing the Big Three to import new vehicles duty free from third countries. But, as noted above, the significance of the Auto Pact safeguards regarding automotive goods imported from the United States terminates in 1998; their significance regarding Mexico will be relevant until 2003 for vehicles and until 1999 or 2003 for many components.⁵⁴ With their ability to import cars duty free into Canada under either the Auto Pact or the free trade regime, the Big Three could reduce their level of assembly in Canada, which clearly would have a negative impact on Canadian component producers.

Among the in-house suppliers, GM's Canadian parts plants are the most vulnerable because of the company's decision to restructure and downsize partly by divesting some of its parts producers. At the same time, independent suppliers are the beneficiaries of GM's new outsourcing policy.

Competition from Mexican Firms

The extent to which Canadian parts producers will be affected by competition from Mexico involves three questions: Will Cana-

dian firms move to Mexico? Will Canadian parts producers be able to compete in the Mexican market? Will Canadian parts producers face competition in the U.S. market from parts made in Mexico?

Canada has not yet lost a major parts investment to Mexico; to date, only a small number of Canadian firms manufacturing labor-intensive components have relocated. In fact, Canadian parts producers should increase their sales in Mexico as NAFTA is implemented. Because it has long been protected, the Mexican-owned domestic parts industry is considerably less efficient than those in either Canada or the United States.⁵⁵ Therefore, as these firms face competition, many will fail, creating openings for Canadian (although also for American) companies.

Autos and parts are the largest component of exports to the United States from Canada and Mexico. We have argued elsewhere that while the potential exists for competition between Canadian and Mexican parts firms for sales in the U.S. market, the fact that the exporting firms are almost all subsidiaries of U.S. multinationals makes it less likely. Thus, rather than overt competition, we expect continued plant rationalizations and reductions in product lines.⁵⁶

Asian Transplant Purchases

To comply with the NAFTA rules of origin and reduce the pricing disadvantages that result from the high value of the yen, the Asian transplant producers will have to increase their sourcing of components in North America. Theoretically, therefore, Canadian parts producers stand to benefit, although by how much is uncertain. Because the parts industry in Canada is smaller and less developed than that in the United States, the Asian transplants anticipate difficulties in increasing Canadian content quickly while running their assembly operations on a just-in-time basis.⁵⁷

Of the transplant assemblers, CAMI has had the most Canadian suppliers. Honda and Toyota have done less Canadian sourcing, in part because most of their major purchasing decisions are made by the much larger Honda and Toyota plants in the United States.⁵⁸ Another problem, already noted, is the limited number of first-tier transplant suppliers located in Canada. Given lean production techniques, this in turn means that few Canadian parts producers have the opportunity to work with first-tier transplant suppliers in the development of products or new materials.⁵⁹ In short, while there are opportunities for Canadian parts producers to augment their sales to the transplant assemblers, they will have to work assiduously to do so.

Labor

From the perspective of the debates over NAFTA and future concerns about sector stability, the most interesting aspect of the Fall 1993 auto industry labor negotiations in Canada was not the wage and working conditions demands, but the call for Canadian content. In addition to the usual topics on the table, the CAW sought a written statement from the Big Three that would commit them to maintaining at least the current average of approximately 75 percent Canadian-made materials in their vehicles assembled in Canada. It perceived that, with NAFTA soon to be implemented, a commitment to Canadian content was "important politically" and would serve as a precedent for other manufacturers. The CAW also saw it as an opportunity to expose the much lower levels of Canadian content in cars produced by the transplants.⁶⁰ GM acceded to the request, stating in a letter to the CAW that "the company commits to support acceptance of this principle [of an average of 75 percent Canadian content in vehicles produced in Canada] so that foreign producers will be encouraged to make their fair share contribution to actions that will restore jobs to Canadian automotive and parts manufacturing workers."⁶¹

Canadian labor opposed both CUSFTA and NAFTA. Moreover, the CAW has made quite clear its opposition to lean production and the changes in work organization that it has prompted.⁶²

The number of short- and long-term jobs in the Canadian auto industry is beyond the influence of auto workers. But there is a link between labor's attitude and the investment climate. Mention has already been made of the negative perception of the Canadian labor environment held by Asian transplant components firms. Although the amount of on-the-job education and training in the Canadian auto industry has increased in recent years, it continues to lag behind that in Japan and the United States.⁶³ The changing nature of auto production will require a flexible, well-trained workforce. Unionized labor will have to adjust to new production methods, important components of which are continuous learning and the team organization of production line responsibilities.

The Role of Government

Government policies have shaped, and will in turn be shaped by, the auto industry. The complexities of the industry and the challenges it faces in this era of continuing global excess capacity and continentalization of production will generate pressures on the

Canadian state, some of which can be anticipated from the arguments made above.

One issue the Canadian government was not able to get on the table during the NAFTA negotiations was location subsidies.⁶⁴ This issue will continue to be significant as competition for industry unfolds within a continental market. U.S. states have actively pursued auto industry investment, as is shown by Kentucky's assistance to A.G. Simpson⁶⁵ and North Carolina's and Alabama's arrangements to lure BMW and Mercedes-Benz, respectively. As the Simpson and Magna cases demonstrate, parts plants, even Canadian-owned ones, follow assemblers. Canadian pockets are simply not deep enough to compete on the same scale. It also is not clear, at least judging from the Simpson experience, whether the province of Ontario is as well organized as its U.S. subunit competitors.⁶⁶ Prime Minister Chrétien has a commitment from the U.S. and Mexican presidents to address the definition of subsidies within the next two years, but the question is so sensitive that progress will be difficult.

Another potential bilateral issue faces the Canadian government: the size of Canada's auto trade surplus with the United States in a congressional environment that is increasingly sensitive to trade balances. Will the result be that the U.S. Congress and perhaps the administration will informally pressure the Big Three to relocate Canadian assembly back to the United States? With the reduced importance of the Auto Pact safeguards, the Big Three may be less persuaded of the value of their current Canadian assembly facilities.

A third issue is the obverse of the second, the ability of the Canadian government to bargain with the Big Three to maintain, if not expand, assembly capacity in Canada. The Big Three harshly criticized the Canadian government's decision in late 1993 to reduce the tariff on imports parts, suggesting that the Japanese assemblers had received something close to Auto Pact status without having to give the commitments the Big Three gave when the Auto Pact was signed.⁶⁷ Although the Auto Pact safeguards may have given the Canadian government considerable moral suasion for the Big Three to expand assembly capacity in Canada,⁶⁸ when the pact's status is reduced, this leverage may decrease accordingly.

A further difference of opinion between the Big Three and the Canadian government arose in Fall 1994 over the government's intention to revise its unemployment insurance system. The responsible minister accused the Big Three of abusing the system by timing layoffs for plant renovations or slowdowns in demand to

make workers eligible to collect unemployment benefits. GM's response to the minister was to threaten a halt to its investments in Canada. This was followed by a sharp letter from the presidents of the Big Three in Canada, together with the CAW, refuting the minister's charges and arguing that the denial of benefits would be unfair to employees who paid their premiums as well as make it more difficult for companies to keep their most skilled employees from seeking alternative employment during layoffs.⁶⁹ The Big Three can be expected to push their position forcefully as the Canadian government debates changes to its social programs.

Finally, the challenge of training will confront both levels of government. A large number of auto industry jobs now require at least a high school education, and many demand more than that. Can the Canadian education systems produce graduates who are sufficiently sophisticated for the industry's needs?⁷⁰ What happens to those who lose their jobs as a result of plant closures or the introduction of new technologies? What kinds of new educational relationships can be developed between automotive industry stakeholders and community colleges? The search for solutions has begun, but more is required.

CONCLUSIONS

The future of the Canadian automotive industry will be determined by decisions made largely outside Canada by the Big Three and the Asian transplant producers. The long-term competitiveness of these auto multinationals will also be a determining factor.

We have argued that the Canadian industry enters the NAFTA phase-in period in a more competitive position than it has enjoyed for some time. But will this health continue beyond the window of opportunity presented by the U.S. recovery? In a competitive, now continental environment, adjustment is continuous, but pressure could well intensify when the recovery recedes, perhaps sometime after 1996. What will happen to the Big Three at that point? Will they again lose huge sums of money? Will they have the capital required for new models and research?

The test for the Big Three will be to maintain their share of the North American market during a future downturn in sales. The Big Three have not regained the market share lost to Japan since the early 1980s;⁷¹ rather, the source of the Asian transplants' vehicles has shifted from imports to onshore assembly. Moreover, excess capacity continues in the auto industry worldwide. The auto multinationals have responded by downsizing and restructuring pro-

duction. Big Three assembly plants are not guaranteed production beyond the life of vehicle models currently allotted to them, and they now have to compete against other facilities in the same corporate family for new vehicle mandates. This competition promotes the whipsawing of plants, which in turn puts cost pressures on both suppliers and labor. These pressures are likely to continue. In the Canadian context, this means that despite new investments in upgrading production facilities, the Canadian Big Three assembly operations have no guarantees beyond the next few years.

Foreign transplant production of motor vehicles, both cars and trucks, should grow rapidly in the next few years as the Asian and now European auto multinationals establish new or augment existing facilities onshore in response to NAFTA, to exchange rate changes, and to differences in unit labor costs. As the transplants contemplate future North American investments, their attention will focus on these factors, comparing Canada's locational attractions with those of the United States and Mexico. Given the importance of the U.S. market and just-in-time production, it is not likely that the transplants will put much of their new investment in Canada.

The Auto Pact and CUSFTA have created certain synergies of production that have worked to Canada's benefit as an assembler of vehicles for the Canadian and U.S. markets. Assembly in Canada has meant opportunities for Canadian parts producers. But these locational advantages will be diluted once NAFTA offers the Mexican auto industry the same synergies and the Auto Pact safeguards become less important. For the Canadian industry, the pull south, either to the United States or to Mexico, represents both an opportunity and a challenge that cannot be ignored.

NOTES

1. This article focuses primarily on the light vehicle sector—i.e., cars and light trucks. Other segments of the industry—heavy trucks, automotive aftermarket parts, and used vehicles—are not considered. For our purposes, the Canadian automotive industry comprises the Big Three assemblers (General Motors [GM], Ford, and Chrysler), the Asian assemblers (Honda, Toyota, Hyundai, and Volvo), and the parts producers. The last category can be broken down into in-house producers (those owned by the assemblers), foreign-owned producers, and Canadian-owned producers.

2. Timothy Pritchard, "Auto Industry Anticipates Rejuvenation in Sales," *Globe and Mail* (Toronto), December 29, 1993, p. B1.

3. "Canadian Cars Set to Catch Japanese," *Financial Post* (Toronto), December 14, 1993, p. 7.

4. This discussion does not distinguish among vehicle producers—i.e., between the Big Three and the Asian and European multinationals.

5. Dennis DesRosiers, *Industry Observations*, No. 13, January 15, 1994, pp. 2-3.

6. For example, engines for the 80,000 Toyota Corollas assembled in Cambridge, Ontario, are currently imported (Michael Prentice, "North American Carmakers Rev It Up," *The Ottawa Citizen*, January 13, 1993, p. B3).

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

8. Recall, however, that in each year, North American sales exceeded North American production by the amount of net imports of vehicles.

9. In this article, CAMI, GM's joint venture with Suzuki, is considered a transplant. 10. Studebaker also qualified, but the company closed shortly thereafter. Companies could qualify for Auto Pact status until the implementation of CUSFTA in January 1989.

11. Dennis DesRosiers argues that the Auto Pact is the most significant agreement signed between Canada and the United States and that every major auto assembly investment in Canada is tied either to the Auto Pact or to discussions with Ottawa about how the companies could meet Auto Pact requirements ("The 'Power' or 'Lack-thereof' of the Auto Pact," Newsletter, DesRosiers Automotive Consultants Inc., May 14 and June 13, 1993).

12. The second memorandum, that between 1965 and 1968 vehicle manufacturers were collectively to raise the level of value added in Canada by \$260 million over and above the 1965 level, was met.

13. The low figure was a function of Chrysler's financial difficulties and the short-term reprieve the Canadian government gave the company to meet the CVA requirements.

14. Robert Gibbens, "Hyundai's Commitment Unclear," *Financial Post*, April 6, 1994, p. 6; and Barrie McKenna, "Hyundai to Reopen Quebec Plant," *Globe and Mail*, April 5, 1994, p. B3. Hyundai also closed its aluminum wheel-making division in Newmarket, Ontario, and does not intend to reopen it.

15. Patrick Adams, "The New Face of Automobile Transplants in Canada," *Summary of Canadian International Trade, July 1993*, Statistics Canada Cat. No. 65-001 (Ottawa: Statistics Canada, 1993).

16. *Ibid.*, p. xxiii.

17. Honda anticipates that in 1994 it will expand its North American production by 18.4 percent, to a record 597,000 vehicles, of which 103,000 will be built in Alliston, an increase of 2.4 percent ("Honda to Boost Production in N. America," *Globe and Mail*, January 19, 1994, p. B3). In July 1994, Honda announced an increase of another 20,000 cars to its Canadian production, for a total of 120,000 vehicles a year. It will also build a new Acura exclusively for the Canadian market. Honda will invest CAN\$20 million in its Alliston plant to increase capacity. This compares with the US\$245 million investment in the United States, which Honda announced at the same time (Erik Heinrich, "Honda Unveils Plans for Canada Car," *Financial Post*, July 20, 1994, p. 5).

18. Toyota owns an aluminum wheel-making plant, CAPTIN, in British Columbia, that by 1993 was producing 1 million wheels annually. The bulk of this production is exported to the United States and Japan.

19. Pritchard, "Auto Industry Anticipates Rejuvenation," p. B1.
20. DesRosiers, *Industry Observations*, p. 3.
21. Timothy Pritchard, "Auto Parts Suppliers on Road to Recovery," *Globe and Mail*, May 29, 1993, p. B1.
22. DesRosiers puts parts industry employment a little lower, at 75,000-76,000 (*Industry Observations*, pp. 1-2).
23. Pritchard, "Auto Industry Anticipates Rejuvenation," p. B1.
24. Laura Fowlie, "Auto Parts Industry Thrives Under Free Trade, GST: Study," *Financial Post*, July 2, 1993, p. 4.
25. DesRosiers, *Industry Observations*, p. 1.
26. Parts producers suggest that a Canadian dollar valued at below 82 cents is necessary for them to make money (Pritchard, "Auto Parts Suppliers on Road to Recovery," p. B1).
27. One example of this is the successful bid by SKD Co. of Milton, Ontario, for a new steering assembly unit for Chrysler; in contrast to the 26 weeks that its North American competition required, SKD tooled up to make the unit in 9 weeks (*Ibid.*).
28. An official of Chrysler Canada suggests that Canadian labor is \$12-\$14 an hour cheaper, while the CAW puts the advantage at \$7-\$8 per hour (Timothy Pritchard, "CAW Retains Advantage over U.S. Auto Workers," *Globe and Mail*, November 3, 1993, p. B1).
29. For more details, see Lorraine Eden and Maureen Appel Molot, "The NAFTA's Automotive Provisions: The Next Stage of Managed Trade," *C.D. Commentary: The NAFTA Papers*, No. 55 (Toronto: C.D. Howe Institute, November 1993); and Eden and Molot, "Insiders and Outsiders: Auto Industry Policy Choices in the NAFTA Debate," in Robert Cushing et al. (eds.), *The Challenge of NAFTA: NAFTA, the Pacific and Australia/New Zealand* (Austin: University of Texas, 1993).
30. GM sought a 60 percent North American content requirement, while Ford and Chrysler originally wanted 70 percent.
31. Authors' interview with an official of the Canadian Automotive Parts Manufacturers Association, December 1992.
32. For details on industry demands in the NAFTA talks, see the various articles in Maureen Appel Molot (ed.), *Driving Continentally: National Policies and the North American Auto Industry* (Ottawa: Carleton University Press, 1993).
33. When CUSFTA is fully implemented, the Big Three will be able to import vehicles and parts duty free under either the Auto Pact or CUSFTA/NAFTA. With this option, the importance of the production to sales ratio will diminish.
34. Authors' interview with an official of the Department of Industry, Science and Technology, Ottawa, November 1992.
35. For discussions on lean production in the Canadian auto industry, see Bernard M. Wolf and Glen Taylor, "Employee and Supplier Learning in the Canadian Automobile Industry: Implications for Competitiveness," in Donald McPetridge (ed.), *Foreign Investment, Technology and Economic Growth* (Calgary: University of Calgary Press, 1991); and Jonathan Morris, "A Japanization of Canadian Industry?" in Daniel Drache and Meric S. Gertler (eds.), *The New Era of Global Competition: State Policy and Market Power* (Montreal and Kingston: McGill-Queen's University Press, 1991). For an analysis of the impact of *kaizen* on workers, see David Robertson et al., "Team Concept and *Kaizen*: Japanese Production Management in a Unionized Canadian Auto Plant," *Studies in Political Economy*, Vol. 39 (Autumn 1992), pp. 77-107.

36. U.S. Office of Technology Assessment (OTA), *U.S.-Mexico Trade: Pulling Together or Pulling Apart?* Chap. 7 (Washington, D.C., October 1992).

37. For an analysis of the possible responses of U.S. multinationals to NAFTA, see Lorraine Eden, "Who Does What After NAFTA? Location Strategies of U.S. Multinationals," in Lorraine Eden (ed.), *Multinationals in North America*, Industry Canada Research Series, Vol. 3 (Calgary: University of Calgary Press, 1994). For more general discussions of multinational responses to NAFTA, see the other articles in the same volume.

38. For earlier calculations on the benefits of the Auto Pact to the Big Three, see Jon Johnson, "NAFTA and the Trade in Automotive Goods," in Steve Globerman and Michael Walker (eds.), *Assessing NAFTA: A Trinational Analysis* (Vancouver: The Fraser Institute, 1993), pp. 112-113; and Eden and Molot, "NAFTA's Automotive Provisions," p. 18.

39. Most of these 1993 exports to Mexico were from the United States (Doron P. Levin, "Ford to Build New Compacts at U.S. and Mexican Plants," *New York Times*, December 17, 1993, p. D1; and Wendy Cuthbert, "Expansion in Mexico to Benefit Ford Canada," *Financial Post*, December 17, 1993, p. 6).

40. Laura Fowlie, "Ste. Therese Plant May Get Third Shift," *Financial Post*, November 17, 1993, p. 7; and James Rubenstein, *The Changing U.S. Auto Industry: A Geographical Analysis* (London and New York: Routledge, 1993).

41. In the view of the Japan Automobile Manufacturers Association (JAMA) of Canada, any improvement in the definition of the rules of origin "cannot justify an arbitrary and blatantly protectionist 25 percent increase in the regional value content requirement" (JAMA Canada, *Annual Report* (Toronto, 1993), p. 3).

42. Eden and Molot, "NAFTA's Automotive Provisions."

43. JAMA Canada, *Annual Report*, 1993.

44. Among the duties cut to zero are those on parts used to make engines and transmissions (parts that cannot or will not be sourced in Canada) and on components such as those for signaling and seat systems that might be sourced in Canada. The new 2.5 percent rate includes parts such as mirrors, wipers, dashboard instruments, and suspension gear (Timothy Pritchard, "Big Three Assail Tariff Cuts on Foreign Parts," *Globe and Mail*, February 11, 1994, pp. B1, B6).

45. *Ibid.*

46. DesRosiers, "The 'Power' or 'Lack-thereof' of the Auto Pact."

47. U.S.-Canada Automotive Select Panel, *Competitiveness of the North American Automotive Industry*, June 1992, p. 8; and Andrew Inkpen, "Japanese Joint Ventures in the Automotive Industry: Implications for North American Suppliers," in *Driving Continentally*.

48. Maureen Appel Molot, "Introduction," in *Driving Continentally*, pp. 6-7.

49. On November 4, 1994, Toyota announced that it will increase production at its Cambridge site to 200,000 Corolla sedans from the current level of 80,000. This will elevate the status of the Cambridge facility to a world-class plant (one that is capable of making at least 200,000 vehicles a year). This expansion of production in Canada, which will have significant spinoffs for Canadian parts producers, will mean that Toyota will no longer export Corollas from Japan to the United States once the facility is in full operation by 1997. Rather, Corollas sold in the U.S. market will come from Canada. Two considerations in the decision have already been noted, the high value of the yen and the U.S.-Japanese trade deficit. On the more positive side, national health insurance, quality, and the relatively lower value of the Canadian dollar give Canadian assembly plants cost advantages over their U.S. counterparts

- (Casey Mahood, "Ontario Wins \$600-Million Plant," *Globe and Mail*, November 4, 1994, p. A1; and Erik Heinrich, "\$600M Boost at Toyota Canada," *Financial Post*, November 4, 1994, p. 1).
50. Wolf and Taylor, "Employee and Supplier Learning," p. 303.
51. Magna purchased 74 percent of the Zipperle group, a subsidiary of Porshe GmbH of Austria, which manufactures rear-view mirrors and other vehicle equipment. It also acquired a 60 percent interest in KS Automobil-Sicherheitstechnik (KSA), a producer of airbags and steering wheels for European automakers, and a 12.5 percent interest in KSA's parent company, Kolbehschmidt AG (Timothy Pritchard, "Magna Continues Acquisitions in Germany," *Globe and Mail*, November 30, 1993, p. B11).
52. Laura Fowlie, "Doddridge Helps Steel Magna in Adulthood," *Financial Post*, June 5, 1993, p. S14.
53. John Saunders, "Simpson Cuts Kentucky Deal," *Globe and Mail*, July 24, 1993, p. B3.
54. Johnson, "NAFTA and the Trade in Automotive Goods," p. 110.
55. For a more detailed discussion on the structure of the Mexican parts industry and that sector's competitiveness, see OTA, *U.S.-Mexico Trade*, pp. 137-138, 148-149.
56. Lorraine Eden and Maureen Appel Molot, "Shaping Comparative Advantage in the North American Trade Bloc," *Canadian Business Economics*, Vol. 1, No. 1 (Fall 1992), p. 49.
57. JAMA Canada, *Annual Report*, 1993, p. 25.
58. Wolf and Taylor, "Employee and Supplier Learning," p. 299.
59. *Ibid.*, pp. 300-301.
60. Virginia Galt, "CAW Targets Canadian Content," *Globe and Mail*, July 16, 1993, p. B3.
61. Virginia Galt, "GM Committed to Canadian Operations," *Globe and Mail*, September 30, 1993, p. A3.
62. Wolf and Taylor, "Employee and Supplier Learning," p. 306; and Robertson et al., "Team Concept and *Kaizen*."
63. Wolf and Taylor, "Employee and Supplier Learning," pp. 306-307.
64. Rubenstein, *The Changing U.S. Auto Industry*.
65. Kentucky's contributions include an \$838,000 cash grant, repayable if certain job targets are not met; \$66,000 for worker training; \$440,000 for access road improvements; and special tax credits allowing the company to deduct mortgage interest on the land and buildings from its state tax bill (Saunders, "Simpson Cuts Kentucky Deal," p. B1).
66. *Ibid.*, pp. B1, B3.
67. Pritchard, "Big Three Assail Tariff Cuts," p. B1.
68. DesRosiers, "The 'Power' or 'Lack-thereof' of the Auto Pact."
69. "UI Cuts May Halt GM Investment," *Financial Post*, October 19, 1994, p. 9; and John Geddes, "Big Three, CAW Refute UI Misuse," *Financial Post*, November 2, 1994, p. 5.
70. Automotive Advisory Committee to the Prime Minister, *Canadian Automotive Industry: Issues and Solutions*, Submitted to Minister of Industry, Science and Technology and International Trade as part of the Prosperity Initiative, May 26, 1992.
71. Doron P. Levin, "Downturn Will Test Big 3's Recovery," *Globe and Mail*, February 7, 1994, p. 5.

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