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Report on the Canadian Automotive Industry in 1986

REPORT ON THE CANADIAN AUTOMOTIVE INDUSTRY IN 1986

Surface Transportation and Machinery Branch
Industry, Science and Technology Canada
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FOREWORD

In 1983, the Automotive Industry Task Force recommended that the government issue an annual report on the performance of the Canadian automotive industry. This recommendation was accepted and annual reports have been published since 1983. This report covers developments in the industry in 1986.

The primary objective of these annual reports is to provide a consistent base of statistics which can be used by industry, labour, government, analysts and researchers. The report also provides a brief overview of major events that influenced the industry during the year under review, and highlights key trends that may be evident from the statistical data.

The Department appreciates the assistance of all segments of the automotive industry in the preparation of this report.

CANADIAN AUTOMOTIVE INDUSTRY
DEVELOPMENTS IN 1986

The year 1986 was one of rapid change in the Canadian automotive industry, characterized by intense import competition, significant swings in currency markets and continuing innovation in production techniques. It was also the year in which two potentially profound trade negotiations were launched - the Canada-U.S. Free Trade Agreement and the eighth round of the General Agreement on Tariffs and Trade (GATT) negotiations.

After two decades of rationalization under the Auto Pact, the Canadian automotive industry is highly dependent on the North American market and is highly sensitive to North American market trends. However, with increasing internationalization and competition, the domestic industry has come under increasing pressure to adapt to the changing world environment. In this context, in order to assess the adequacy of existing policies affecting the sector, the Department of Regional Industrial Expansion commenced a review of Canadian automotive policy in consultation with all segments of the industry.

The North American market remains the largest and most mature automotive market in the world. With an established and efficient distribution system to reach a sophisticated consumer market, it is a relatively easy market to access for foreign automobile producers. As a result, efficient and competitive offshore producers have gained a substantial foothold.

Automobile sales in the North American market increased marginally in 1986 over 1985. This increased demand was largely satisfied by offshore producers whose share of the market reached 28.4 percent, the highest level to date. Automobile sales in Canada declined slightly from the record level in 1985 - a downturn in demand which equally affected domestically produced and imported automobile sales.

Demand for commercial vehicles remained strong in North America and sales exceeded those in 1985, the previous record sales year. This increase was shared equally by North American and Japanese-built vehicles.

In 1986, the Japanese limited exports of automobiles to the United States to 2.3 million units. Canada also obtained assurances from Japan that there would be no disruption of the Canadian market in 1986/87.

Of major importance in 1986 was the rebalancing of North American currencies with both Japanese and European currencies. This had a negative effect on sales by European producers. However, their market share loss and declining profitability in North America were offset by strong sales in the domestic and other world markets.

Despite the rapid appreciation of the yen, there was no indication of any appreciable impact on the viability of the Japanese industry, as firms responded quickly with offsetting cost-cutting measures and higher prices. However, the new dollar-yen relationship encouraged Japanese automobile

companies to accelerate their move toward the production of expensive and specialized models more directly competitive with the North American models assembled in Canada.

Currency rebalancing accelerated the trend towards increased Asian investment in North American-based assembly plants and parts manufacturing facilities. New production by Japanese companies is already flowing from plants in the United States and several more are in the construction or planning stage for Canada and the U.S. For example, in 1986 General Motors of Canada and Suzuki Motors of Japan announced plans to construct an assembly plant and stamping facility in Canada with a capacity of 200 000 units annually to come fully onstream in 1992.

Japanese parts manufacturers are also investing in parts manufacturing in North America either by direct investment or through joint ventures. It is estimated that several hundred Japanese parts manufacturers could be in production in Canada and the United States by 1990 - a major competitive challenge for North American parts manufacturers.

The internationalization of the automotive industry continues and North American vehicle manufacturers are increasing their efforts to establish relationships with Asian producers. Each of the major vehicle companies has entered into equity investments, joint ventures, licensing arrangements and technical agreements to share production expertise and to source small and mid-size cars to help improve its competitive position in the North American market. General Motors has a strong interest in Isuzu and Suzuki as well as a joint venture in California with Toyota. General Motors also has a 50 percent interest in Daewoo Motors in South Korea. Ford owns a 25 percent share of Mazda and has an interest in KIA in South Korea. Ford also owns 70 percent of Ford Lio Ho Motor Company in Taiwan. Chrysler has an interest in Mitsubishi. In short, the internationalization of the automotive industry means that automobile imports will continue to feature prominently in the corporate strategies of the traditional North American producers.

Another significant factor influencing automotive production is the introduction of new automated and robotized production machinery. Automation has already lowered the minimum, efficient annual production scale for individual product lines. Increased use of flexible, automated equipment in the assembly of automobiles has permitted a wider range of products to be assembled on the same line. It has also permitted automobile companies to enter markets at relatively low assembly levels while offering a number of variations of the same model.

In 1986, there was a further evolution in the role of the automobile assembler towards the co-ordination of the production system. North American companies are seeking to reduce costs and capital outlays by greater outside purchasing of major components and sub-assemblies. They are working more closely with component suppliers to ensure that the problems of financing, design, quality and costs are resolved co-operatively. This suggests there will be fewer suppliers for each final assembler; special parts will be obtained from single

sources; and longer-term association with suppliers will be developed. It is likely that this supply process will be further developed in the future as vehicle assemblers endeavour to reduce costs and improve product quality.

According to some forecasts, the recovery of the North American industry over the past three years may have peaked, and current levels of production and employment may never again be exceeded. Slower growth through the remainder of the 1980s and predictions that motor vehicle markets in Canada and the United States are approaching saturation suggest that vehicle sales are unlikely to grow at more than one to two percent annually over this period. Rising competition from imports and "transplant" assembly in Canada and the U.S. in an environment of slow growth and rapid technological innovation will continue to exert pressure on North American vehicle and parts producers over the next decade.

Clearly, Canadian vehicle producers and parts manufacturers may expect to face an increasingly complex and competitive business environment in the future.

1986 STATISTICAL SUMMARY

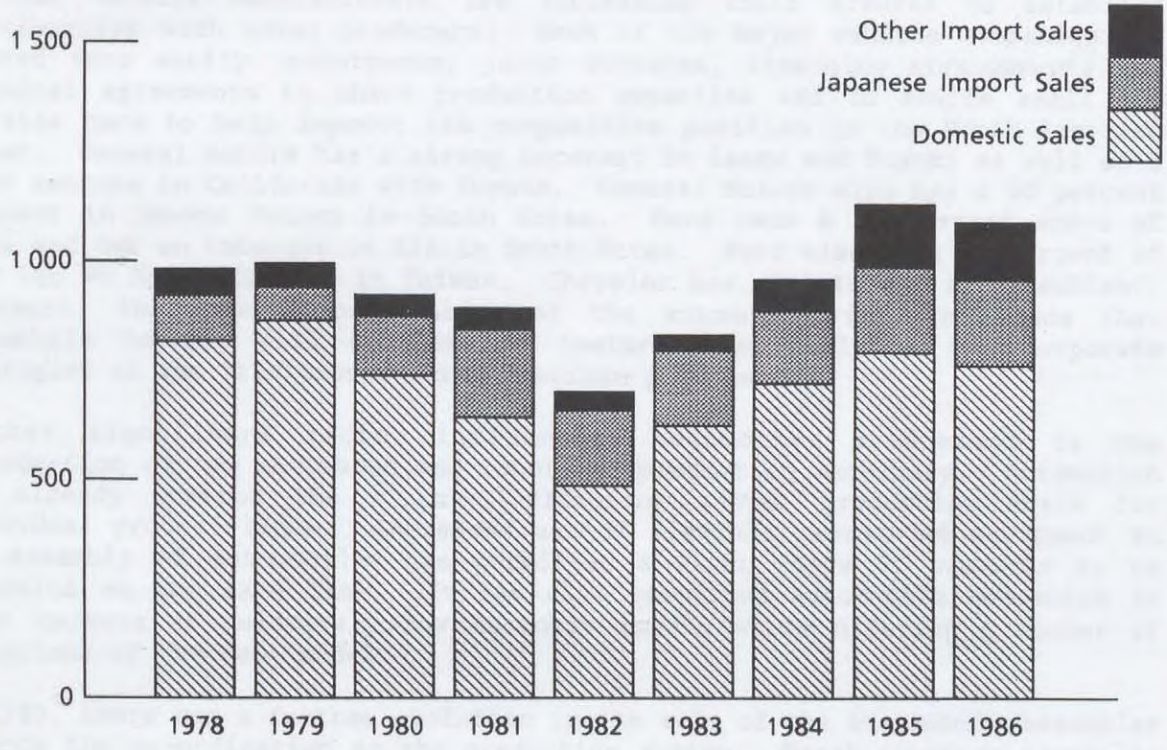
Market Trends

Market demand for automobiles and commercial vehicles increased in Western Europe but was static in Japan. Total North American vehicle sales reached 17.8 million units, up from 17.2 million units in 1985 (Appendix Table 1.1). This increase can be attributed to sales in the United States.

In Canada, sales of North American type automobiles were down by 4.2 percent to 762 000 units but maintained a market share of 69.8 percent. Sales of imported automobiles also declined in 1986 but Japanese automobile sales remained the same as in 1985 on a unit basis.

Figure 1

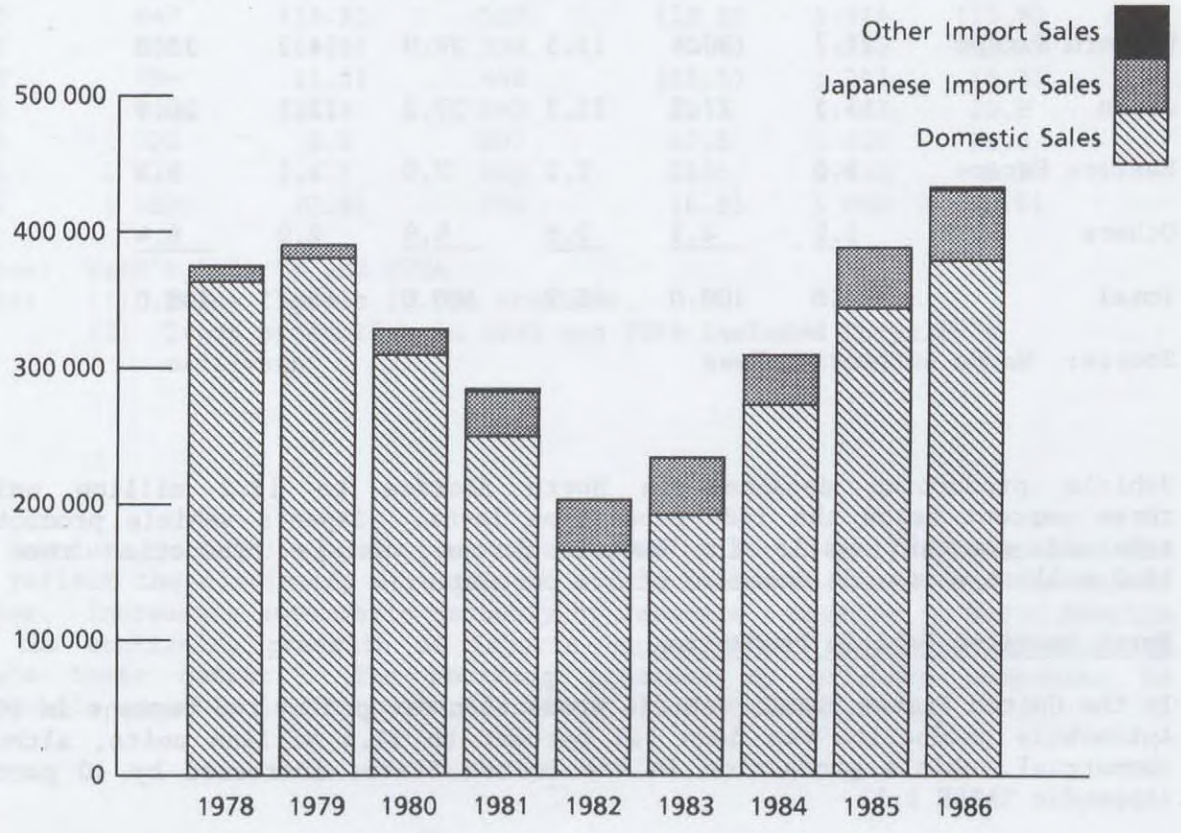
PASSENGER CAR SALES IN CANADA
1978 - 1986
('000 units)



Commercial vehicle sales in Canada in 1986 were up almost 11 percent to 436 128 units. Sales of North American type trucks increased by 10.2 percent to 379 598 units, while sales of Japanese light trucks increased by 16.4 percent (Figure 2).

Figure 2

COMMERCIAL VEHICLE SALES IN CANADA
1978 - 1986
(Units)



Production Trends

Worldwide vehicle production reached an all time high in 1986 of 45.7 million units, up from 45.2 million in 1985, an increase of over one percent.

TABLE 1
WORLD MOTOR VEHICLE PRODUCTION TRENDS
(million)

	1984		1985		1986	
	Units	% Share	Units	% Share	Units	% Share
North America (U.S. and Canada)	12.8	30.6	13.6	30.0	13.2	28.9
Western Europe	12.7	30.4	13.5	29.9	14.2	31.0
Japan	11.5	27.5	12.3	27.2	12.3	26.9
Eastern Europe	3.0	7.2	3.2	7.0	3.1	6.8
Others	1.8	4.3	2.6	5.9	2.9	6.4
Total	**41.8**	**100.0**	**45.2**	**100.0**	**45.7**	**100.0**

Source: Wards Automotive News

Vehicle production declined in North America to 13.2 million units, three percent below the 1985 production level. Japan's vehicle production remained constant while in Western Europe vehicle production rose to 14.2 million units, an increase of 5.1 percent.

North American Vehicle Production

In the United States, motor vehicle production dropped by two percent in 1986. Automobile production was down 3.1 percent to 11.4 million units, although commercial vehicle production in the United States increased by 10 percent (Appendix TABLE 1.1).

Commercial vehicle production in Canada in 1986 declined by 58 000 units, or 6.8 percent from the previous year. Automobile production in Canada was down by almost one percent.

TABLE 2
CANADIAN MOTOR VEHICLE PRODUCTION, 1978-1986
('000 UNITS)

Year	Passenger Cars	% Change	Commercial Vehicles	% Change	Total	% Change
1978	1 140	-	678	-	1 818	-
1979	988	(13.1)	644	(5.0)	1 632	(10.2)
1980	847	(14.3)	527	(18.2)	1 374	(15.8)
1981	806	(4.8)	524	(0.6)	1 330	(3.2)
1982	794	(1.5)	448	(15.5)	1 242	(6.6)
1983	940	18.4	547	22.1	1 487	19.8
1984	1 023	8.8	807	47.5	1 830	21.8
1985	1 071	4.7	856	6.5	1 930	5.5
1986	1 062	(0.8)	798	(6.8)	1 860	(3.6)

Source: Ward's Reports and MVMA
Notes: (1) Minus figures in the brackets.
(2) Truck production in 1983 and 1984 included Chrysler's mini-vans.

The downturn in vehicle production experienced by North American companies did not reflect the continuing strength of vehicle sales in Canada and the United States. Increasing automobile assembly by Japanese companies in North America and the continuing pressure of imports caused North American companies to reduce their output. The mounting presence by offshore companies in automobile assembly in North America is outlined in TABLE 3.

TABLE 3
NON-TRADITIONAL PLANTS IN NORTH AMERICA

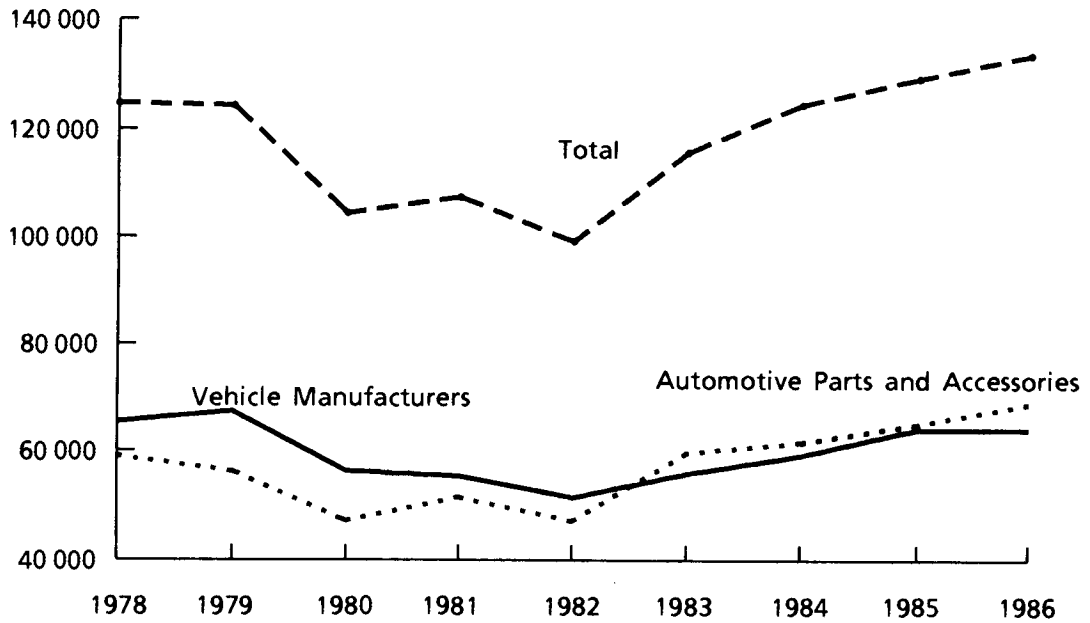
Company	Capacity Units (cars)	Start-up Year
Honda - Ohio	350 000	1982
Honda - Ontario	80 000	1986
Nissan - Tennessee	200 000	1983
Toyota - California	250 000	1984
Kentucky	200 000	1988
Toyota - Ontario	50 000	1988
Mazda - Michigan	300 000	1987
Mitsubishi - Illinois	240 000	1988
Fuji - Indiana	120 000	1989
GM/Suzuki - Ontario	200 000	1988
Hyundai - Quebec	100 000	1989
Total	**2 090 000**	

Employment

Employment in the automotive sector in Canada reached a record total of 132 600 workers compared to 129 120 workers in 1985. Increases in employment were experienced in all segments of the industry including the parts sector which grew to 63 600 workers.

Figure 3

EMPLOYMENT IN THE CANADIAN AUTOMOTIVE INDUSTRY BY SECTOR
1978 - 1986
(Units)



Trade in Automotive Products

Canada had an overall trade surplus in the automotive sector of $68.3 million in 1986 compared to $1.4 billion in 1985 and $3 billion in 1984.

Canada - United States Trade

Over 95 percent of automotive trade between the two countries falls under the provisions of the Auto Pact. More than 80 percent of Canadian motor vehicle assembly output is exported to the United States and approximately 70 percent of Canadian vehicle sales are met by imports from the United States.

Canadian exports of automotive products to the U.S. in 1986 increased by two percent to $34.5 billion. This rate of increase was lower than the previous two years, reflecting a softening in demand in the United States market and increased competition from imports.

TABLE 4

CANADA-UNITED STATES TRADE IN AUTOMOTIVE PRODUCTS, 1984-1986
(RECONCILED BASIS)

	Annual Totals			Value Change		Percentage Change	
	1984	1985	1986	1985	1986	1985	1986
			(C$ M)			(%)	
Exports (United States Imports from Canada)							
Cars	13 085	15 277	16 428	2 192	1 151	16.8	7.5
Trucks and other motor vehicles	5 880	6 422	5 804	542	-618	9.2	-9.6
Parts	10 287	11 512	11 577	1 225	65	11.9	0.6
Tires and tubes	598	592	675	-6	83	-1.0	14.0
Total	**29 850**	**33 803**	**34 484**	**3 953**	**681**	**13.2**	**2.0**
Imports (Canadian Imports from the U.S.)							
Cars	6 085	8 048	8 628	1 963	580	32.3	7.2
Trucks and other motor vehicles	2 039	2 504	2 824	465	320	22.8	12.8
Parts	15 446	17 488	17 680	2 042	192	13.2	1.1
Tires and tubes	345	264	227	-81	-37	-23.5	-14.0
Total	**23 915**	**28 304**	**29 359**	**4 389**	**1 055**	**18.4**	**3.7**
Balance							
Car	7 000	7 229	7 800	229	571		
Trucks and other motor vehicles	3 841	3 918	2 980	77	-938		
Parts	-5 159	-5 976	-6 103	-817	-127		
Tires and tubes	253	328	448	75	120		
Total	**5 935**	**5 499**	**5 125**	**-436**	**-374**		

Excluded: adjustments to values of imported parts for special tooling charges.

Source: Statistics Canada

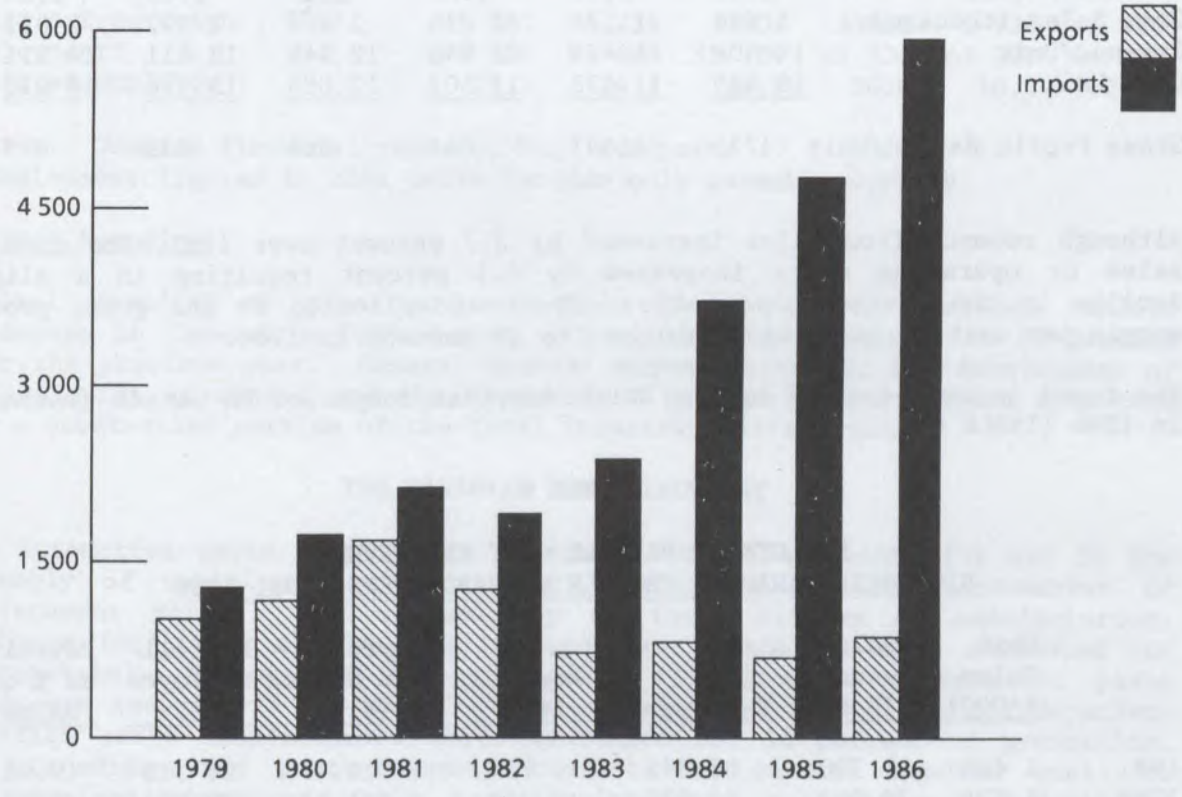
In 1986, Canada posted a $5.1 billion trade surplus in automotive trade with the United States down $374 million from 1985.

Automotive Trade With Other Countries

The trade deficit in automotive products with countries other than the United States grew to a record $5.1 billion in 1986 compared to $4.1 billion in 1985. The increasing trade deficit is attributed to rising imports of parts to service imported vehicles, increasing sourcing of original equipment parts from lower-cost sources by North American vehicle producers, and importation of parts for the assembly of automobiles in Canada by Japanese companies. In 1986, Mexico had become the second largest supplier of automotive parts to Canada, mainly engines and engine parts imported by the North American companies for vehicle assembly.

Figure 4

CANADA - OVERSEAS TRADE IN AUTOMOTIVE PRODUCTS
1979 - 1986
($ millions)



FINANCIAL PERFORMANCE

The financial performance of the North American automobile companies in Canada in any year reflects the strength of the market for the companies' products and such variables as product mix, new line start-up costs, plant renovations, work stoppages and security of parts and material supplies. In 1986, General Motors continued to modernize the Oshawa complex and introduced a new product program at Ste-Thérèse. Ford introduced new procedures and technology at Oakville, and Chrysler was engaged in a new product development program. Each of the companies had extensive sales incentives and low-rate financing programs designed to encourage sales and maintain market share. The costs and revenues for 1986 reflect these factors (TABLE 5).

TABLE 5
COSTS AND REVENUE TRENDS --
BIG THREE CANADIAN VEHICLE MANUFACTURERS, 1981-1986

	1981	1982	1983	1984	1985	1986
Revenue ($M)	17 380	18 083	24 232	31 997	37 180	38 178
Cost of Sales ($M)	17 677	18 341	23 419	29 862	35 476	36 928
Revenue / Cost	0.98	0.99	1.04	1.07	1.05	1.04
Unit Sales (thousands)	1 686	1 576	2 036	2 471	2 692	2 631
Revenue/Unit	10 308	11 474	11 946	12 949	13 811	14 511
Cost Unit	10 485	11 638	11 502	12 085	13 178	14 036
Gross Profit Margin/Unit	(177)	(164)	444	864	633	475

Although revenue from sales increased by 2.7 percent over 1985, the cost of sales or operating costs increased by 4.1 percent resulting in a slight decline in the revenue-cost ratio. This was reflected in the gross profit margin per unit of sales which dropped by 24 percent in 1986.

The trend in cost-control by the North American companies in Canada continued in 1986 (TABLE 6).

TABLE 6

EMPLOYMENT PAYROLL COST AND REVENUE
BIG THREE CANADIAN VEHICLE MANUFACTURERS, 1981-1986

	Unit Sales ('000)	Sales Revenue ($ M)	Employment	Payroll ($ M)	Payroll/ Unit Sales ($)	Payroll/ Employee ($)	Payroll as % of Sales
1981	1 686	17 380	66 396	1 734	1 028.47	26 116	9.98
1982	1 576	18 083	60 579	1 720	1 091.37	28 393	9.51
1983	2 036	24 323	68 938	2 128	1 045.19	30 868	8.75
1984	2 471	31 997	73 639	2 564	1 037.64	34 819	8.01
1985	2 692	37 180	75 962	2 899	1 076.89	38 164	7.80
1986	2 631	38 178	72 687	2 878	1 093.88	39 594	7.54

Source: Company Financial Reports

Employment in the Big Three vehicle companies (assembly and captive parts) declined by 3 275 workers in 1986, down four percent from 1985, although payroll costs only decreased by $21 million. Payroll per unit of sales increased by $17. This is reflected in the payroll per employee, which increased by three percent in 1986. However, payroll as a percent of sales revenue declined marginally, continuing the trend which occurred during the 1980s.

Trends in Vehicle Output per Employee

As shown in TABLE 7, the number of vehicles produced per employee peaked at 30.8 in 1984. In 1985, there was a slight reduction and, in 1986, the number declined to 29.1 per employee. This decline in 1985 and 1986 may be attributed to the extensive refurbishing of the GM Oshawa complex and the model change-over programs.

TABLE 7
CANADIAN VEHICLE OUTPUT PER EMPLOYEE
BIG THREE VEHICLE MANUFACTURERS, 1981-1986

	1981	1982	1983	1984	1985	1986
Vehicle Production ('000)	1 281	1 236	1 502	1 830	1 930	1 860
Employment*	55 500	51 400	55 900	59 400	63 900	64 000
Vehicles/Employee	23.1	24.1	26.9	30.8	30.2	29.1

Source: Company financial reports, Ward's Reports
* Employment figures in this table include only assembly workers.

Capital Spending

Capital spending on plant and equipment by the North American vehicle producers in Canada in 1986 was $1 138 million, an increase of 20 percent over the previous year. General Motors' expenditures for the development of the Autoplex at Oshawa and the new product program at Ste-Thérèse accounted for a substantial portion of the total industry capital outlay.

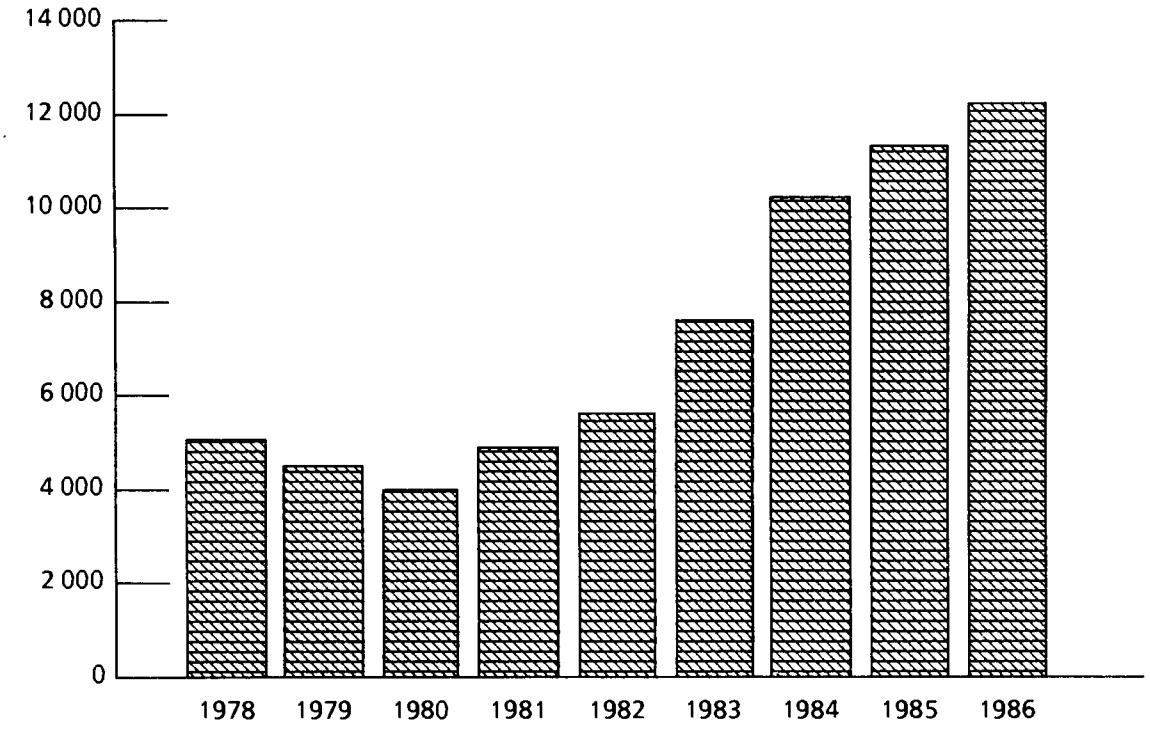
THE CANADIAN PARTS INDUSTRY

The automotive parts industry in Canada produces components for use in the assembly of vehicles, and parts and accessories for the aftermarket or replacement market. It is made up of three classes of manufacturers: in-house facilities of the vehicle producers, which in 1986, accounted for approximately 45 percent of production; foreign-owned independent parts producers responsible for about 40 percent of total output; and independent Canadian parts manufacturers which accounted for 15 percent of production. The Canadian-owned parts segment consists of several hundred small to medium-sized companies while the foreign-owned multinational independent segment is composed of 12 to 15 large companies.

Total automotive parts production in 1986 was $13.4 billion, of which 80 percent was exported, principally to the United States. Approximately 85 percent was original equipment parts used in the assembly of vehicles by the motor vehicle companies. The remaining 15 percent was sold as aftermarket parts.

Figure 5

CANADIAN MOTOR VEHICLE PARTS SHIPMENTS
1978 - 1986
($ millions)



Exports of parts to the United States were up by $65 million to $11.6 billion in 1986 (Table 5.2). Parts exports to other countries were up 39 percent to $418 million compared to $301 million in 1985.

Investment

Capital investment by Canadian automotive parts manufacturers in 1986 increased by 21 percent over 1985, continuing an investment trend that began in 1983.

TABLE 8
CAPITAL INVESTMENT IN CANADIAN AUTOMOTIVE-PARTS INDUSTRY, 1978-1986

Year	Capital Expenditures $Millions
1978	201.4
1979	330.9
1980	786.9
1981	666.5
1982	189.8
1983	164.0
1984	203.2
1985	332.1
1986	402.9

STATISTICAL APPENDIX

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Note: Because of the variety of sources from which these statistical tables have been taken, totals will not always agree. The differences can be attributed to the variety of methods used in obtaining the various statistics.

1. SALES

TABLE 1.1

Retail Sales of Motor Vehicles in Canada and the United States, 1970-1986
('000 Units)

	AUTOMOBILES			TRUCKS			
YEAR	NORTH AMERICAN	OVERSEAS IMPORT	TOTAL	NORTH AMERICAN	OVERSEAS IMPORT	TOTAL	TOTAL VEHICLES
1. CANADA							
1970	497	143	640	125	9	134	774
1971	592	188	780	147	13	160	940
1972	654	205	859	190	17	207	1 066
1973	783	188	971	235	20	256	1 227
1974	797	146	943	288	19	307	1 249
1975	836	154	989	310	17	327	1 317
1976	793	153	946	331	14	345	1 291
1977	798	194	991	338	16	354	1 345
1978	816	173	989	364	13	377	1 366
1979	863	140	1 003	381	12	393	1 396
1980	741	191	932	312	22	334	1 266
1981	647	257	904	251	36	287	1 191
1982	489	224	713	167	40	207	920
1983	625	218	843	193	45	238	1 081
1984	725	246	971	274	39	313	1 284
1985	795	342	1 137	345	48	393	1 530
1986	762	329	1 091	368	51	419	1 510

Source: Statistics Canada.

	AUTOMOBILES			TRUCKS			
YEAR	NORTH AMERICAN	OVERSEAS IMPORT	TOTAL	NORTH AMERICAN	OVERSEAS IMPORT	TOTAL	TOTAL VEHICLES
2. U.S.							
1970	7 120	1 285	8 405	1 746	65	1 811	10 216
1971	8 681	1 570	10 251	2 011	85	2 096	12 347
1972	9 327	1 623	10 950	2 486	143	2 632	13 575
1973	9 676	1 763	11 439	2 916	228	3 144	14 583
1974	7 454	1 413	8 867	2 512	171	2 683	11 550
1975	7 053	1 587	8 640	2 249	231	2 480	11 120
1976	8 611	1 498	10 109	2 944	237	3 181	13 290
1977	9 109	2 075	11 184	3 353	323	3 676	14 860
1978	9 312	2 000	11 312	3 776	337	4 113	15 425
1979	8 328	2 300	10 628	3 000	500	3 500	14 128
1980	6 578	2 398	8 976	2 002	484	2 486	11 462
1981	6 206	2 324	8 530	1 852	448	2 300	10 830
1982	5 757	2 222	7 979	2 151	410	2 561	10 540
1983	6 795	2 386	9 181	2 588	464	3 052	12 233
1984	7 951	2 439	10 390	3 484	607	4 091	14 481
1985	8 205	2 834	11 038	3 912	766	4 678	15 716
1986	8 216	3 235	11 451	3 944	923	4 867	16 318

Source: Motor Vehicle Manufacturers' Association (MVMA) and Ward's Reports.

TABLE 1.2

Canadian Sales of North American Cars by Size, 1970-1986
(Units)

YEAR	SUB-COMPACT	PERCENT TOTAL	COMPACT	PERCENT TOTAL	INTER-MEDIATE	PERCENT TOTAL	FULL-SIZE	PERCENT TOTAL	LUXURY	PERCENT TOTAL	TOTAL SALES
1970	8 882	1.80	101 192	20.46	156 136	31.57	214 785	43.43	13 556	2.74	494 551
1971	38 616	6.85	108 280	19.22	158 687	28.16	234 656	41.64	23 259	4.13	563 498
1972	45 645	7.41	132 550	21.51	185 856	30.16	206 830	33.57	45 308	7.35	616 189
1973	81 739	10.89	164 783	21.96	233 914	31.18	213 909	28.51	55 927	7.45	750 272
1974	89 969	11.61	183 062	23.63	239 003	30.85	209 102	26.99	53 600	6.92	774 736
1975	74 552	10.29	185 894	25.66	229 364	31.66	222 581	30.73	11 963	1.65	724 354
1976	70 483	8.89	245 047	30.91	249 235	31.44	215 451	27.18	12 502	1.58	792 718
1977	56 060	7.03	245 805	30.81	266 784	33.44	214 287	26.86	14 775	1.85	797 711
1978	96 154	11.80	248 046	30.43	263 448	32.32	191 113	23.44	16 435	2.02	815 196
1979	152 432	17.67	236 832	27.46	243 132	28.19	203 388	23.58	26 738	3.10	862 522
1980	140 214	18.92	228 745	30.86	205 813	27.77	148 145	19.99	18 350	2.48	741 267
1981	136 696	21.45	198 078	31.08	184 443	28.94	105 406	16.54	12 604	1.98	637 227
1982	156 874	32.36	124 944	25.78	145 237	29.96	50 705	10.46	6 959	1.44	484 719
1983	205 942	33.56	135 226	22.04	197 672	32.21	66 016	10.76	8 817	1.44	613 673
1984	235 429	33.01	178 527	25.03	206 740	28.99	79 030	11.08	13 531	1.90	713 257
1985	237 047	30.22	202 286	25.88	245 966	31.47	79 961	10.23	16 567	2.12	781 827
1986	232 949	30.90	187 465	24.87	234 511	31.11	81 752	10.85	17 227	2.29	753 904

SOURCE: MVMA.

TABLE 1.3

United States Sales of North American Cars by Size, 1970-1986
(Units)

YEAR	SUB-COMPACT	PERCENT TOTAL	COMPACT	PERCENT TOTAL	INTER-MEDIATE	PERCENT TOTAL	FULL-SIZE	PERCENT TOTAL	LUXURY	PERCENT TOTAL	TOTAL SALES
1970	138 259	1.93	1 157 250	16.18	2 434 906	34.04	3 033 092	42.40	389 280	5.44	7 152 787
1971	721 814	8.74	1 174 090	14.21	2 330 502	28.20	3 500 140	42.36	536 890	6.50	8 263 436
1972	809 014	9.75	1 267 350	15.27	2 360 920	28.45	3 332 215	40.15	529 277	6.38	8 298 776
1973	1 072 440	11.09	1 687 379	17.45	2 909 511	30.09	3 258 475	33.70	741 884	7.67	9 669 689
1974	791 901	10.63	1 557 854	20.91	2 539 193	34.09	2 016 375	27.07	543 598	7.30	7 448 921
1975	1 167 393	17.27	1 678 500	24.83	1 974 772	29.21	1 587 852	23.49	352 395	5.21	6 760 912
1976	1 041 050	12.10	2 436 219	28.31	2 845 207	33.06	1 898 857	22.06	385 240	4.48	8 606 573
1977	994 936	10.93	2 364 838	25.97	3 009 209	33.05	2 276 561	25.00	458 910	5.04	9 104 454
1978	1 209 320	13.20	2 224 380	24.28	3 007 774	32.84	2 137 160	23.33	581 547	6.35	9 160 181
1979	1 762 050	21.42	1 936 150	23.54	2 334 500	28.38	1 708 790	20.77	483 936	5.88	8 225 426
1980	1 670 721	25.40	1 674 755	25.46	1 835 799	27.91	1 075 267	16.35	321 710	4.89	6 578 252
1981	1 661 401	26.77	1 523 044	24.54	1 741 694	28.07	951 534	15.33	328 183	5.29	6 205 856
1982	1 738 589	30.20	1 104 083	19.18	1 618 078	28.11	928 467	16.13	367 441	6.38	5 756 658
1983	2 034 807	29.95	924 639	13.61	2 247 042	33.07	1 157 519	17.04	431 292	6.35	6 795 299
1984	2 306 206	29.00	1 309 390	16.47	2 457 048	30.90	1 232 368	15.50	646 511	8.13	7 951 523
1985	1 296 863	15.81	2 562 588	31.24	2 463 556	30.03	1 077 308	13.14	804 389	9.81	8 204 704
1986	1 325 325	16.14	2 461 192	29.97	2 540 491	30.93	1 115 789	13.59	772 091	9.40	8 214 888

Source: 1970 through 1975 are registrations (figures are low because of incomplete reports from some states).
1976 and subsequent years are retail sales -- Ward's Automotive Reports.

TABLE 1.4

Canadian Sales of New Passenger Cars by Origin, 1964-1986
(Units)

Year	Total Sales Volume	Domestic Volume	Domestic Percent	Total Imported Volume	Total Imported Percent	Japanese Volume	Japanese Percent
1964	616 759	550 823	89.3	65 936	10.7	-	-
1965	708 716	633 641	89.4	75 075	10.6	2 834	0.4
1966	694 820	626 986	90.2	67 834	9.8	2 742	0.4
1967	679 435	605 049	89.1	74 386	10.9	5 617	0.8
1968	741 915	637 393	85.9	104 522	14.1	15 859	2.1
1969	760 803	638 270	83.9	122 533	16.1	39 033	5.1
1970	640 360	497 185	77.7	143 175	22.3	65 569	10.2
1971	780 762	592 319	75.9	188 443	24.1	106 552	13.7
1972	858 959	653 933	76.1	205 026	23.9	116 860	13.6
1973	970 828	782 914	80.6	187 914	19.4	111 467	11.5
1974	942 797	796 840	84.5	145 957	15.5	87 609	9.3
1975	989 280	835 679	84.5	153 601	15.5	95 772	9.7
1976	946 488	793 201	83.8	153 287	16.2	101 558	10.7
1977	991 398	797 752	80.5	193 646	19.5	134 900	13.6
1978	988 890	815 994	82.5	172 896	17.5	113 166	11.4
1979	1 003 008	863 554	86.1	139 454	13.9	79 879	8.0
1980	932 060	740 767	79.5	191 293	20.5	138 107	14.8
1981	904 195	646 942	71.6	257 253	28.4	207 639	23.0
1982	713 481	489 435	68.6	224 046	31.4	178 174	25.0
1983	843 318	625 088	74.1	218 230	25.9	176 525	20.9
1984	971 210	724 932	74.6	246 278	25.4	171 204	17.6
1985	1 137 216	794 965	69.9	342 251	30.1	199 221	17.5
1986	1 091 117	761 867	69.8	329 250	30.2	198 410	18.2

Source: Statistics Canada.

TABLE 1.5

U.S. Sales of New Passenger Cars by Origin, 1964-1986
(Units)

Year	Total Sales Volume	Domestic Volume	Domestic Percent	Total Imported Volume*	Total Imported Percent	Japanese Volume*	Japanese Percent
1964	8 100 865	7 616 734	94.0	484 131	6.0	N/A	-
1965	9 232 504	8 763 219	94.9	469 285	5.1	18 067	0.2
1966	8 978 657	8 377 425	93.3	601 232	6.7	40 183	0.5
1967	8 286 472	7 567 884	91.3	718 588	8.7	69 188	0.8
1968	9 610 257	8 624 820	89.7	985 437	10.3	109 586	1.2
1969	9 545 295	8 464 375	88.7	1 080 920	11.3	189 160	2.0
1970	8 364 950	7 115 537	85.1	1 249 413	14.9	312 777	3.7
1971	10 209 375	8 676 284	85.0	1 533 091	15.0	578 977	5.7
1972	10 907 503	9 321 502	85.5	1 586 001	14.6	628 918	5.8
1973	11 402 261	9 669 689	84.8	1 732 572	15.2	742 621	6.5
1974	8 838 244	7 448 921	84.3	1 389 323	15.7	592 113	6.7
1975	8 614 524	7 050 120	81.8	1 564 404	18.2	807 931	9.4
1976	10 097 692	8 606 573	85.2	1 491 119	14.8	931 182	9.2
1977	11 168 708	9 104 454	81.5	2 064 254	18.5	1 399 338	12.5
1978	11 300 477	9 307 563	82.4	1 992 914	17.6	1 414 260	12.5
1979	10 647 442	8 328 055	78.2	2 319 387	21.8	1 833 927	17.2
1980	8 978 584	6 578 252	73.3	2 400 332	26.7	1 908 413	21.3
1981	8 533 135	6 205 856	72.7	2 327 279	27.3	1 858 896	21.8
1982	7 978 872	5 756 658	72.2	2 222 214	27.9	1 801 481	22.6
1983	9 182 071	6 795 299	74.0	2 386 772	26.0	1 915 621	20.9
1984	10 390 815	7 951 523	76.5	2 439 292	23.5	1 906 204	18.3
1985	11 038 423	8 204 704	74.3	2 833 719	25.7	2 217 860	20.2
1986	11 452 566	8 214 888	71.7	3 237 678	28.3	2 375 818	20.7

* Imported includes captive imports for 1980 and subsequent years.

Source: Ward's.

TABLE 1.6

Road Motor vehicle Registrations in Canada, 1981-1985

	1981	1982	1983	1984	1985
Passenger Automobiles	10 199 388	10 530 355	10 731 520	10 780 667	11 118 071
Trucks and Truck-tractors	3 137 987	3 239 341	3 307 746	3 046 889	3 095 243
Buses	54 210	54 065	55 226	52 169	53 285
Motorcycles	406 871	431 453	466 411	470 445	452 526
Mopeds	-	-	-	-	35 397
Other	53 026	55 503	58 706	56 302	64 103
TOTAL	13 851 482	14 310 717	14 619 609	14 406 472	14 818 625

Source: Statistics Canada.

The statistics on road-vehicle registrations shown in this table have been obtained from the 12 provincial and territorial governments, each of which has its own distinct registration system. While each provincial or territorial system may be comprehensive and consistent within itself, the inconsistencies between the different provinces and territories pose serious problems for anyone trying to make use of national totals.

For all provinces and territories, the registration figures represent the total number of vehicles which held a registration in the reporting jurisdiction for all, or any part, of the licence year. However, there is some slight duplication when vehicles are registered in more than one province or territory during the same licence year. Although the Statistics Canada questionnaire asked for separate reporting of transfers from other provinces or territories, only Nova Scotia and British Columbia were able to supply this figure. Therefore, no adjustment was made. An analysis of these reports indicates that less than 1.7 percent of registrations of road motor-vehicles represents transfers from other provinces or territories.

Since 1980, information from the province of Quebec concerning registration is based on a count of the number of vehicles in circulation. In previous years, data shown in tabulations for Quebec were based on the number of registration transactions. However, because Quebec registrations change each time a vehicle is sold (unlike the other nine provinces where the licence plate stays with the vehicle), the transactions count tended to overstate the number of vehicles on the road in Quebec.

TABLE 1.7

Top-ten Vehicle Manufacturers in the World by Total Output, 1985

COMPANY	TOTAL OUTPUT (Units)
1. General Motors -- U.S.A.	9 077 049
2. Ford Motor -- U.S.A.	5 450 526
3. Toyota -- Japan	3 718 522
4. Nissan -- Japan	2 808 085
5. Volkswagen -- West Germany	2 385 349
6. Chrysler -- U.S.A.	1 936 583
7. Renault -- France	1 879 054
8. Peugeot -- France	1 818 816
9. Uaz -- U.S.S.R.	1 660 000
10. Fiat -- Italy	1 508 986

Note: Includes production from plants outside parent country.

Source: Motor Vehicle Manufacturers Association (MVMA) of the United States, World Motor Vehicle Data, 1987.

Data compiled by the MVMA from various overseas sources. Information was obtained from published reports issued by various vehicle associations outside the U.S. and from a number of other sources considered reliable. Therefore, and because of the numerous complex factors involved in determining vehicle ranking worldwide, the MVMA does not assume responsibility for the above classification.

TABLE 1.8

International Sourcing Pattern of Original-equipment Parts of the Five Major Motor Vehicle Manufacturers ($C Million)

Model Year	U.S. Purchases from In-house Suppliers in Canada	Canadian Purchases from In-house Suppliers in U.S.A.	Column (a) Less Column (b)
	(a)	(b)	(c)
1965	17.4	522.2	- 504.8
1966	163.7	599.5	- 435.8
1967	209.0	716.1	- 507.1
1968	356.3	1 008.5	- 652.2
1969	406.8	1 298.7	- 891.9
1970	453.6	1 153.3	- 699.7
1971	639.0	1 428.1	- 789.1
1972	763.2	1 556.4	- 793.2
1973	801.7	1 804.0	-1 002.3
1974	713.0	2 083.2	-1 370.2
1975	796.7	2 209.1	-1 412.4
1976	1 165.6	2 772.2	-1 606.6
1977	1 520.6	3 365.8	-1 845.2
1978	2 222.0	N.A.	N.A.
1979	2 361.7	4 702.8	-2 341.1
1980	1 604.1	3 991.7	-2 387.6
1981	2 118.7	4 957.2	-2 838.5
1982	2 891.7	5 374.2	-2 482.5
1983	2 360.0	5 918.0	-3 558.0
1984	3 959.6	7 813.4	-3 853.8
1985	4 620.7	8 489.6	-3 868.9
1986	4 869.0	9 710.4	-4 814.4

Model Year	U.S. Purchases from Independent Suppliers in Canada	Canadian Purchases from Independent Suppliers in U.S.A.	
1965	74.3	236.4	- 162.1
1966	112.3	279.8	- 167.5
1967	172.1	304.6	- 132.5
1968	327.4	405.2	- 77.8
1969	430.9	485.5	- 54.6
1970	487.3	505.4	- 18.1
1971	574.5	484.4	90.1
1972	699.3	558.9	140.4
1973	888.4	748.8	139.6
1974	771.4	846.9	- 75.5
1975	875.8	1 051.1	- 175.3
1976	1 221.6	1 283.5	- 61.9
1977	1 530.0	1 519.9	10.1
1978	1 537.8	N.A.	N.A.
1979	1 812.0	1 560.0	25.2
1980	1 253.4	1 226.1	27.3
1981	1 385.1	1 450.7	- 65.6
1982	1 476.9	1 843.8	- 366.9
1983	1 922.1	2 067.4	- 145.3
1984	2 616.7	3 034.2	- 417.5
1985	3 381.4	3 871.4	- 490.0
1986	3 735.7	4 618.8	- 883.1

Note: Canadian purchases are for use in vehicle assembly in Canada only. These figures do not include parts imported for further manufacture or parts imported for re-export, either as parts or as CKD vehicles.

Source: Compiled from company responses to the Reisman Inquiry (1965-1977) and company Auto Pact Reports (1979-1986). 1978 data not available from Auto Pact Reports.

2. SHIPMENTS

TABLE 2.1

Value of Shipments in Canadian Automotive Industry, 1976-1986
($C Million)

Year	Motor-Vehicle Manufacturers (SIC* 323)	Truck Body & Trailer Manufacturers (SIC 324)	Motor Vehicle Parts & Accessories (SIC 325)	Automotive Fabric (SIC 188)	Total
1976	7 2776.1	304.7	3 112.3	305.5	10 998.6
1977	8 610.4	340.4	3 790.2	348.6	13 089.6
1978	10 070.1	426.1	4 692.0	427.7	15 615.9
1979	10 724.4	594.5	4 472.8	424.6	16 216.3
1980	10 071.1	618.4	3 609.7	424.5	14 723.7
1981	11 402.8	631.6	4 358.4	520.9	16 913.7
1982	12 343.6	483.4	5 059.7	479.2	18 365.9
1983	15 590.7	449.4	8 357.9	612.3	25 010.3
1984	21 262.9	981.9	11 019.5	816.9	34 081.2
1985	24 599.1	1 049.1	12 183.3	905.3	38 736.8
1986	25 093.9	1 174.8	12 222.0	999.7	39 490.4

* Standard Industrial Classification
SOURCE: Statistics Canada.

3. PRODUCTION

TABLE 3.1

North American Production of Motor Vehicles, 1965-1986
('000 Units)

Year	Canada		U.S.A.		North America Total	
	Volume	Percent	Volume	Percent	Volume	Percent
1965	846	7.1	11 114	92.9	11 960	100.0
1966	902	8.0	10 363	92.0	11 265	100.0
1967	947	9.5	8 992	90.5	9 939	100.0
1968	1 180	9.8	10 794	90.2	11 974	100.0
1969	1 353	11.7	10 182	88.3	11 535	100.0
1970	1 193	12.6	8 263	87.4	9 456	100.0
1971	1 373	11.4	10 650	88.6	12 023	100.0
1972	1 474	11.5	11 297	88.5	12 771	100.0
1973	1 575	11.1	12 663	88.9	14 238	100.0
1974	1 564	13.5	9 984	86.5	11 548	100.0
1975	1 442	13.9	8 965	86.1	10 407	100.0
1976	1 647	12.5	11 486	87.5	13 133	100.0
1977	1 775	12.3	12 699	87.7	14 474	100.0
1978	1 818	12.4	12 895	87.6	14 713	100.0
1979	1 632	12.4	11 475	87.6	13 107	100.0
1980	1 374	14.6	8 010	85.4	9 384	100.0
1981	1 280	13.9	7 941	86.1	9 221	100.0
1982	1 236	15.0	6 985	85.0	8 221	100.0
1983	1 502	13.9	9 226	86.1	10 728	100.0
1984	1 830	14.4	10 924	85.6	12 754	100.0
1985	1 930	14.2	11 648	85.8	13 578	100.0
1986	1 859	14.1	11 317	85.9	13 176	100.0

Source: Ward's Automotive Reports.

TABLE 3.2

Canadian Truck Production, 1975-1986
(Units)

YEAR	LIGHT	PERCENT OF TOTAL	MEDIUM AND HEAVY-DUTY	PERCENT OF TOTAL	TOTAL
1975	367 142	94.74	20 397	5.26	387 539
1976	482 807	96.45	17 753	3.55	500 560
1977	576 297	95.64	26 263	4.36	602 560
1978	629 743	95.99	26 316	4.01	656 059
1979	606 936	95.59	27 980	4.41	634 916
1980	506 274	95.97	21 248	4.03	527 522
1981	480 172	96.65	16 650	3.35	496 822
1982	434 138	96.94	13 682	3.06	447 820
1983	539 386	98.53	8 051	1.47	547 437
1984	793 873	97.81	17 849	2.19	811 722
1985	834 467	97.46	21 711	2.54	856 178
1986	771 102	97.28	21 578	2.73	792 680

Source: MVMA

TABLE 3.3

U.S. Truck Production, 1975-1986
(Units)

YEAR	LIGHT	PERCENT OF TOTAL	MEDIUM	PERCENT OF TOTAL	HEAVY-DUTY	PERCENT OF TOTAL	TOTAL
1975	1 945 498	85.62	200 271	8.82	126 391	5.56	2 272 160
1976	2 637 314	88.53	198 726	6.67	143 009	4.80	2 979 049
1977	3 048 767	88.80	203 653	5.93	180 809	5.27	3 433 229
1978	3 263 122	88.04	224 379	6.05	218 749	5.91	3 706 250
1979	2 608 076	85.89	189 477	6.24	239 153	7.88	3 036 706
1980	1 386 523	83.16	100 088	6.00	180 672	10.84	1 667 283
1981	1 445 403	84.98	88 666	5.21	166 839	9.81	1 700 908
1982	1 720 532	90.30	49 224	2.58	135 684	7.12	1 905 440
1983	2 096 297	86.47	126 548	5.22	201 459	8.31	2 424 304
1984	2 769 275	90.05	67 805	2.21	238 245	7.74	3 075 325
1985	3 045 990	90.74	78 279	2.33	232 636	6.93	3 356 906
1986	3 128 146	92.20	51 264	1.52	213 475	6.30	3 392 885

Source: Ward's Automotive Yearbook.

4. INVESTMENT

TABLE 4.1

New Capital Expenditures in the Canadian Automotive Industry, 1976-1986
($C Million)

	Motor Vehicle Manufacturers	Truck Body Manufacturers	Sub-Total	Motor-Vehicle Parts and Accessories	Total
1976	59.6	23.3	82.9	62.5	145.5
1977	152.5	24.1	176.6	109.6	286.2
1978	83.6	15.4	99.0	203.9	302.9
1979	111.4	41.7	153.1	330.9	484.0
1980	136.4	47.2	183.6	780.9	964.5
1981	272.9	32.2	305.1	666.5	971.6
1982	203.1	33.6	236.7	188.5	425.2
1983	463.2	12.6	475.8	140.5	616.3
1984	256.1	12.6	268.7	171.1	439.8
1985	713.6	8.9	722.5	332.1	1 054.6
1986	1 897.3	19.4	1 916.7	402.9	2 319.6

SOURCE: Statistics Canada.

5. TRADE AND AUTO PACT DATA

TABLE 5.1

Canadian-overseas Trade in Automotive Products, 1969-1986*
($C Million)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
CANADIAN EXPORTS																	
Motor Vehicles	141	114	117	126	204	421	427	614	711	558	634	656	440	281	346	225	222
Parts	99	85	88	119	142	180	171	195	314	445	420	556	404	254	280	301	418
Tires and Tubes	3	4	3	5	5	5	8	7	10	11	31	45	26	18	24	45	42
Re-exports	9	7	6	8	7	10	10	10	9	21	89	436	390	194	174	134	197
TOTAL	**252**	**210**	**214**	**258**	**358**	**621**	**615**	**826**	**1044**	**1035**	**1174**	**1693**	**1260**	**747**	**824**	**705**	**879**
CANADIAN IMPORTS																	
Motor Vehicles	240	374	464	377	450	410	522	592	894	727	1159	1599	1413	1626	2176	3106	3954
Parts	130	133	191	212	260	206	231	235	262	365	355	342	379	613	1328	1460	1761
Tires and Tubes	19	27	42	57	70	82	79	110	146	202	208	187	115	128	207	207	220
TOTAL	**389**	**534**	**697**	**646**	**780**	**698**	**842**	**937**	**1302**	**1294**	**1722**	**2128**	**1907**	**2367**	**3711**	**4773**	**5935**
BALANCES																	
Motor Vehicles	(99)	(260)	(347)	(251)	(246)	11	(95)	22	(183)	(169)	(525)	(943)	(973)	(1345)	(1830)	(2881)	(3732)
Parts	(31)	(48)	(103)	(93)	(118)	(26)	(60)	(40)	52	180	65	214	25	(359)	(1048)	(1159)	(1343)
Tires and Tubes	(16)	(23)	(39)	(52)	(65)	(77)	(71)	(103)	(136)	(191)	(177)	(142)	(89)	(110)	(183)	(162)	(178)
Re-exports	9	7	6	8	7	10	10	10	9	21	89	436	390	194	174	134	197
TOTAL	**(137)**	**(324)**	**(483)**	**(388)**	**(422)**	**(82)**	**(227)**	**(111)**	**(258)**	**(259)**	**(548)**	**(435)**	**(647)**	**(1620)**	**(2887)**	**(4068)**	**(5056)** e

*CKDs are included sometimes in the parts category and sometimes in vehicle category.

Source: Statistics Canada.

TABLE 5.2

Canada-United States Trade in Automotive Products, 1970-1986

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
								$C MILLION									
United States Imports from Canada*																	
Cars	1 538	1 943	2 046	2 272	2 540	2 858	3 430	4 032	4 723	4 345	4 452	5 145	7 170	8 973	13 085	15 277	16 428
Trucks, etc.	589	593	706	789	868	932	1 344	1 964	2 325	2 364	2 218	3 142	3 946	4 437	5 880	6 422	5 804
Parts	1 127	1 495	1 778	2 172	1 963	2 045	2 942	3 721	4 753	4 489	3 405	4 151	4 902	7 056	10 287	11 512	11 577
Tires and tubes	15	8	23	68	64	68	163	144	192	234	231	286	406	419	598	592	675
Total	**3 269**	**4 039**	**4 553**	**5 301**	**5 435**	**5 903**	**7 879**	**9 861**	**11 993**	**11 432**	**10 306**	**12 724**	**16 424**	**20 885**	**29 850**	**33 803**	**34 484**
Canadian Imports from United States																	
Cars	659	960	1 056	1 439	1 621	2 183	2 317	2 834	3 038	3 747	3 388	3 710	2 875	4 886	6 085	8 048	8 628
Trucks, etc.	275	361	495	643	896	942	970	1 118	1 322	1 952	1 217	1 347	873	1 129	2 039	2 504	2 824
Parts	2 107	2 485	2 907	3 528	3 829	4 425	5 473	6 848	8 092	8 666	7 600	9 230	9 676	11 359	15 446	17 488	17 635
Tires and tubes	24	36	50	92	218	174	115	153	130	155	146	165	147	225	345	264	227
Total	**3 065**	**3 842**	**4 508**	**5 702**	**6 564**	**7 724**	**8 874**	**10 953**	**12 582**	**14 520**	**12 351**	**14 452**	**13 571**	**17 599**	**23 915**	**28 304**	**29 314**
Balances																	
Cars	879	983	990	833	919	675	1 113	1 198	1 685	598	1 064	1 435	4 295	4 087	7 000	7 229	7 800
Trucks, etc.	314	232	211	146	-28	-10	375	846	1 003	412	1 001	1 795	3 073	3 308	3 841	3 918	2 980
Parts	-980	-990	-1 129	-1 356	-1 866	-2 380	-2 531	-3 127	-3 339	-4 177	-4 195	-5 079	-4 774	-4 303	-5 159	-5 976	-6 058
Tires and Tubes	-9	-28	-27	-24	-154	-106	48	-9	62	79	85	121	259	194	253	328	448
Total	**204**	**197**	**45**	**-401**	**-1 129**	**-1 821**	**-995**	**-1 092**	**-589**	**-3 087**	**-2 045**	**-1 728**	**2 853**	**3 286**	**5 935**	**5 499**	**5 170**
Excluded: retroactive adjustments to value of imported parts from U.S. for special tooling charges.	95	80	85	93	188	135	151	244	284	234	297	463	479	454	417	409	545

* A more accurate measurement of trade in automotive products is obtained by comparing the import statistics of each country. Accordingly, Canadian exports are derived from the counterpart United States statistics of imports.

TABLE 5.3

Overall Net Production to Net Sales-value Ratios* Achieved by Auto Pact Companies in Canada, 1972-1986
($C million)

	MODEL YEARS														
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
PASSENGER VEHICLES															
(Required ratio: range 95-100)															
Net Sales-value Ratio Achieved (All companies)	125	121	122	122	122	125	130	130	106	123	202	196	173	174	177
COMMERCIAL VEHICLES															
(Required ratio: range 75-100+)															
Net Sales-value Ratio Achieved (All companies)	122	115	98	101	113	132	155	127	115	140	238	272	231	192	191
BUSES															
(Required ratio: range 85-100)															
Net Sales-value Ratio Achieved (All companies)	119	97	102	114	98	105	163	183	199	273	213	243	312	324	239

*Net production to net sales-value ratio is the ratio of the total value of Canadian vehicle production to the total net sales value of vehicle sales for all Auto Pact companies.

Source: Compiled from company Auto Pact Reports to Department of Regional Industrial Expansion.

TABLE 5.4

Actual Canadian Value-added (CVA) as a Percentage of Cost of Sales Compared to CVA Commitments of all Auto Pact Producers, 1976 - 1986 ($C Million)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Cost of Vehicle Sales in Canada of all Auto Pact Producers (model year)	5 345	6 001	6 727	8 554	8 757	8 659	6 327	6 752	10 281	13 022	15 002
Total CVA Produced (model year)	3 606	4 337	4 951	5 491	4 659	5 368	5 759	5 847	8 504	10 210	11 282
Difference Between Cost of Sales and CVA Produced	1 739	1 664	1 776	3 063	4 020	3 235	568	905	1 777	2 812	3 720
Total Achieved CVA as Percentage * of Cost of Sales	67	72	74	64	53	62	91	87	83	78	75

Source: Auto Pact Company Reports to Department of Regional Industrial Expansion.

* CVA to cost of sales requirement range from 40 to 60 per cent.

TABLE 5.5

Total Canadian Value-added by Category of Production for the Four Major Vehicle Manufacturers in Canada ($C thousand), 1964-1986

Year	Non-parts CVA in Vehicle Production	Parts CVA in Vehicle Production	CVA in Original-equipment Parts Exported	Total Canadian Value-added Produced	Parts CVA as Percentage of Total CVA
	a	b	c	d = a+b+c	(b+c)/d
1964	319 294	429 687	36 496	785 477	59.4
1965	379 532	575 750	100 097	956 229	60.3
1966	398 154	537 554	198 943	1 134 651	64.9
1967	360 716	481 780	302 669	1 145 165	68.5
1968	418 490	493 666	444 895	1 357 051	69.2
1969	473 920	559 537	587 509	1 620 966	70.8
1970	482 821	509 910	650 575	1 643 306	70.6
1971	524 922	457 094	728 149	1 710 165	69.3
1972	564 178	562 676	879 228	2 006 082	71.9
1973	657 787	603 624	1 078 736	2 340 147	71.9
1974	739 987	640 285	1 069 117	2 449 389	69.8
1975	876 298	733 442	1 105 988	2 715 728	67.7
1976	1 053 265	724 808	1 568 273	3 346 346	68.5
1977	1 289 796	833 948	1 882 556	4 006 300	67.8
1978	1 435 608	948 744	2 133 323	4 517 675	68.2
1979	1 465 468	1 184 305	2 351 655	5 001 428	70.7
1980	1 321 865	1 086 625	1 755 138	4 163 628	68.2
1981	1 344 937	1 272 954	2 217 692	4 835 583	72.2
1982	1 456 898	1 232 880	2 256 222	4 946 000	70.6
1983	1 603 567	1 446 315	2 542 162	5 592 044	71.3
1984	1 980 610	2 067 701	3 917 148	7 965 459	75.1
1985	2 181 753	2 135 860	5 095 169	9 412 782	76.8
1986	2 432 490	2 500 545	5 532 363	10 465 398	76.8

Source: 1964-1977 data prepared by the Reisman Commission; 1978-1986 data prepared by Department of Regional Industrial Expansion.

TABLE 5.6

Automotive Industry, Selected Current and Capital Account Transactions (1) Between Canada and the United States ($C million) 1982-1985

Type of Transaction	1982	1983	1984	1985
United States Imports from Canada (2):				
Cars	7 170	8 973	13 085	15 277
Trucks, etc.	3 946	4 437	5 880	6 422
Parts	5 308	7 475	10 885	12 104
Tires and Tubes				
Total	16 424	20 885	29 850	33 803
Canadian Imports from United States (3):				
Cars	2 877	4 886	6 085	8 048
Trucks, etc.	873	1 129	2 039	2 504
Parts	9 829	11 671	15 791	17 752
Tires and Tubes				
Total	13 579	17 686	23 915	28 304
Net Flow on Merchandise Trade	+2 845	+3 199	+5 935	+5 499
Other Selected Current Account Transactions	- 868	- 421	-1 436	-1 039
Net Flow on Current Account	+1 977	+2 778	+4 499	+4 460
Capital Account Transactions				
Net Flow on Capital Account	- 31	-1 286	+ 107	+ 160
Net Flow on Current and Capital Account	+1 946	+1 492	+4 606	+4 620

(1) Items contained in the statement do not reflect the full range of current and capital flows associated with the automotive industry, but are a selection of important elements. Balances should be read with this qualification in mind.
(2) Data are converted on a monthly noon average exchange basis.
(3) Excluding special tooling charges on parts imported from United States.

This table presents data on the main current and capital account movements between Canada and the United States within the automotive sector. It covers the four major automobile manufacturers in Canada and other Canadian manufacturers of automotive parts and accessories.

TABLE 5.6 (Cont'd)

The statement does not purport to show the complete balance of payments impact of the Automotive Products Agreements as, besides international freight costs which are generally excluded from the reported values of vehicles and parts, the effects on trade with third countries and other sectors of the economy are not covered.

In identifying the automotive industry for the purpose of this table, particular attention was paid to the manufacturers resident in Canada whose products could be identified in merchandise trade statistics. In addition to the automobile manufacturers, the data accordingly cover suppliers and product manufacturers engaged in the automotive after-market industries (where identifiable in balance of payments surveys).

Source: Statistics Canada.

TABLE 5.7

Scheduled Tariffs Changes under the General Agreement on Trade and Tariffs for Most Favoured Nations Ad Valorem Rates of Duty, Tariff Items 43803-1 and 61815-1

	1983	1984	1985	1986	1987
Automobiles and motor vehicles of all kinds; electric, trackless trolley buses; chassis for all the foregoing. (Tariff Item 43803-1)	12.1	11.4	10.7	9.9	9.2
Tires and tubes, wholly or in part of rubber. (Tariff Item 61815-1)	13.9	12.9	12.0	11.1	10.2

6. EMPLOYMENT

TABLE 6.1

Employment Related to Automotive Manufacturing in Canada, 1964-1986
('000)

Calendar Year	Motor-vehicle Assembly (SIC 323)	Truck Bodies & Trailers (SIC 324)	Automotive Parts & Acc. (SIC 325)	Automobile Fabric & Acc. (SIC 188)	Total
1964	34.3	4.4	30.5	1.3	70.5
1965	39.8	5.8	35.3	1.9	82.8
1966	40.7	6.3	37.6	2.7	87.3
1967	38.7	6.7	37.7	2.6	85.7
1968	39.6	6.8	37.3	3.1	86.8
1969	42.3	8.2	40.4	4.1	95.0
1970	37.5	8.4	36.4	3.7	86.0
1971	41.0	10.1	41.3	4.3	96.7
1972	41.9	14.2	41.4	5.2	102.7
1973	45.2	14.8	48.8	5.8	114.6
1974	47.1	15.2	45.9	5.7	113.9
1975	43.4	14.4	41.2	4.8	103.8
1976	46.6	14.0	46.2	5.6	112.4
1977	50.6	12.6	48.6	6.5	118.3
1978	52.3	13.6	52.1	6.9	124.9
1979	52.6	14.8	49.8	6.6	123.8
1980	43.9	12.9	41.0	6.3	104.1
1981	43.4	12.1	44.7	7.2	107.4
1982	42.7	8.6	41.1	6.3	98.7
1983*	44.4	11.5	55.2	4.5	115.6
1984	49.5	12.5	56.9	4.9	123.8
1985	50.4	13.5	60.3	5.1	129.1
1986	49.9	14.1	63.6	5.1	132.6

* Effective March, 1983, employment data is based on a sample survey rather than those firms with 20 or more employees as was the case prior to 1983. Accordingly, 1983 and later data cannot be compared with the historical employment data.

Source: Statistics Canada.

TABLE 6.2

Employment Related to Automotive Manufacturing in the U.S., 1972-1986
('000)

YEAR	Total Motor Vehicles And Equipment (SIC 371)	Motor Vehicles (SIC 3711)	Trucks and Bus Bodies (SIC 3713)	Parts and Accessories (SIC 3714)	Automotive Stampings (SIC 3465)
Annual Average					
1972	874.8	415.2	46.1	383.0	104.5
1973	976.5	461.6	51.3	429.9	110.9
1974	907.7	416.2	54.8	402.7	95.5
1975	792.4	375.3	45.5	352.5	82.1
1976	881.0	415.9	43.7	399.0	99.5
1977	938.0	439.8	47.5	424.3	110.0
1978	977.1	451.5	51.4	443.6	114.0
1979	994.6	464.2	45.8	444.4	115.0
1980	788.8	368.1	39.7	349.5	95.3
1981	788.7	358.7	37.0	363.3	93.7
1982	704.8	321.3	31.1	325.4	82.0
1983	772.7	363.1	31.8	344.2	88.6
1984	867.2	389.4	40.4	388.0	99.3
1985	873.4	402.5	37.8	388.9	102.3
1986	842.7	381.1	37.8	378.8	101.2

Source: U.S. Bureau of Labor Statistics.

Based on 1972 Standard Industrial Classification (SIC), annual average 1972-1986.

TABLE 6.3

Canadian Automotive Parts Industry by Number of Employees, 1985

Number of Employees	Number of Establishments	Percent of Total Establishments	Value of Shipments ($ million)	Percent of Total Shipments
Fewer than 100	340	66.2	1 007 767	7.8
100-500	139	27.0	3 579 323	27.7
500 or more	34	6.8	8 336 380	64.5
Total	513	100.0	12 923 470	100.0

Source: Statistics Canada.

7. VEHICLE-ASSEMBLY AND PARTS-MANUFACTURING PLANTS IN CANADA

TABLE 7.1

Major Motor-vehicle Assembly and Parts-manufacturing Plants in Canada

Location	Company/Plant Name	Main Products
British Columbia		
Burnaby	Freightliner of Canada Ltd.	Trucks
Kelowna	Western Star Trucks Inc.	Trucks
North Vancouver	Pacific Truck and Trailer Ltd.	Trucks
Manitoba		
Winnipeg	Flyer Industries Ltd.	Buses
	Motor Coach Industries	Buses
Ontario		
Brampton	American Motors (Canada) Ltd.	Cars
Chatham	Navistar Canada	Trucks
Oakville	Ford Motor Company of Canada, Ltd.: car-assembly plant	Cars
	Ford truck plant	Trucks
Oakville	Mack Canada, Inc.	Trucks
Oshawa	General Motors of Canada Ltd.: car-assembly plant	Cars
	GM truck-assembly plant	Trucks
Mississauga	Ontario Bus Industries Ltd.	Buses
Scarborough	GM van plant	Vans

TABLE 7.1 (continued)

Major Motor-vehicle Assembly and Parts-manufacturing Plants in Canada

Location	Company/Plant Name	Main Products
Ontario (continued)		
St. Thomas	Ford Motor Company of Canada, Ltd.	Cars
Windsor	Chrysler Canada Ltd.	Vans and wagons
	Chrysler Pillette Road plant	Vans and wagons
Bramalea	Chrysler Canada Ltd.	Eagle Division (cars)
Quebec		
Saint-Eustache	GM Diesel Division coach plant	Buses
Sainte-Thérèse	Canadian Kenworth Company (a division of Paccar Canada Ltd.)	Trucks
Sainte-Thérèse	General Motors of Canada Ltd.	Cars
Pointe-Claire	Prévost Car, Inc.	Buses
Nova Scotia		
Halifax	Volvo Canada Ltd.	Cars

Source: Compiled from information supplied by the companies, the Motor Vehicle Manufacturers' Association and Statistics Canada.

TABLE 7.2

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Locations	Main Products
In-house facilities		
American Motors (Canada) Inc.	Sarnia, Ont.	Blocks and casting
Chrysler Canada Ltd.		
Trim plant	Ajax, Ont.	Door panels seat cushions, backs
Aluminum-casting plant	Etobicoke, Ont.	Pistons, water-pump bodies, transmissions, transfer cases
Ford Motor Company of Canada Ltd.		
Niagara glass plant	Niagara Falls, Ont.	Automotive glass
Essex plant	Windsor, Ont.	V6 engines
Ensite engine plant #1	Windsor, Ont.	V8 engines
Ensite engine plant #2	Windsor, Ont.	Engine machinery and stampings
Casting plant	Windsor, Ont.	Iron castings
Essex aluminum plant	Windsor, Ont.	Aluminum castings
Philco Ford	Don Mills, Ont.	Radio and electronic components
General Motors of Canada Ltd.		
Fabrication plant	Oshawa, Ont.	Stampings, batteries, radiators, instrument clusters, plastics, reaction injection molding
Foundry	St. Catharines, Ont.	Metal castings (ferrous and non-ferrous)
Axle plant	St. Catharines, Ont.	Axles, disc brakes, spark plugs, front suspensions, transmission components
Engine plant	St. Catharines, Ont.	V6 and V8 engines
Trim plant	Windsor, Ont.	Trim sets, door covers
Transmission plant	Windsor, Ont.	Front-wheel-drive automatic transmissions

TABLE 7.2 (continued)

A Partial List of Major Automotive Parts Plants in Canada

Company Name	Locations	Main Products
Foreign-owned Independent Manufacturers (larger facilities)		
AP Parts of Canada	Rexdale, Ont.	Mufflers, tail and exhaust pipes
Budd Canada Inc.	Kitchener, Ont. Winnipeg, Man.	Frames, engine heaters
Canadian Fram Limited	Chatham, Ont.	Emission controls, cooling systems
Certified Brakes	Rexdale, Ont.	Brake disc-pads, brake linings, hydraulic parts
Continental Group of Canada Ltd.	Amherstburg, N.S. Brampton, Ont.	Stampings, springs
Hayes-Dana Inc.	St. Catharines, Ont. Barrie, Ont.	Drive shafts, frames, axles
Kelsey-Hayes Canada Ltd.	Windsor, Ont. St. Catharines, Ont.	Wheels, brake parts
Kralinator Filters	Cambridge, Ont.	Oil, fuel and air filters
Motor Wheel Corporation of Canada Ltd.	Chatham, Ont.	Wheels, rims and flanges
Rockwell International of Canada Ltd.	La Colle, Que. Tilbury, Ont. Gananoque, Ont. Mississauga, Ont. Bracebridge, Ont. Chatham, Ont. Milton, Ont.	Coil springs, brakes, mechanical components stampings, plastic components
Standard Tube Canada Ltd.	Woodstock, Ont.	Axle components
Standard Products Canada	Stratford, Ont.	Weather stripping, engine and body mounts
TRW Canada, Thompson Products Division	St. Catharines, Ont.	Steering components, valves, electro-mechanical devices
Varta Batteries Ltd.	Lachine, Que. Scarborough, Ont. St. Thomas, Ont. Winnipeg, Man. Richmond, Man.	Batteries
Walker Exhausts	Cambridge, Ont.	Mufflers, tail and exhaust pipes

TABLE 7.2 (continued)

A Partial List of Major Automotive Parts Plants in Canada

Company Name	Locations	Main Products
Canadian-owned Companies		
A.G. Simpson Co. Ltd.	Toronto, Ont. Windsor, Ont.	Stampings
Ahoy Industries Inc.	Richmond, B.C.	Truck exhaust-tubings
Amcan Castings Ltd.	Hamilton, Ont.	Die castings
Asbestonos	Montréal, Que.	Brake and clutch products
Butler Metal Products Co. Ltd.	Cambridge, Ont.	Stampings
CAE Industries Ltd.	St. Catharines, Ont. Montréal, Que. Welland, Ont. Vancouver, B.C.	Non-ferrous and light-alloy castings
Canadian-General Tower Ltd.	Cambridge, Ont.	Seat fabrics
Crila Plastic Industries Ltd.	Bolton, Ont.	Trim
Do Ray Lamp Company (Canada)	Toronto, Ont.	Truck lighting and safety equipment
Dominion Auto Accessories Ltd.	Toronto, Ont.	Protective lighting, mirrors, directional signals
Fabricated Steel Products Ltd.	Windsor, Ont.	Stampings
Fleck Manufacturing Company	Tillsonburg, Ont. Huron Park, Ont.	Wire harnesses
Huron Steel Products	Windsor, Ont.	Stampings
Kendan Manufacturing Ltd.	Windsor, Ont.	Diesel engine components
Keystone A&A Industries Ltd.	Richmond, B.C.	Wheels and wheel covers
Magna International Incorporated	Markham, Ont.	Stampings, plastic components, motors, instrumentation
National Auto Radiator Manufacturing Co.	Windsor, Ont.	Stampings
Stelco Inc. (parts manufacturing only)	Gananoque, Ont. Toronto, Ont.	Fasteners and forgings

TABLE 7.2 (continued)

A Partial List of Major Automotive Parts Plants in Canada

Company Name	Locations	Main Products
Canadian-Owned Companies (continued)		
Tamco Ltd.	Windsor, Ont.	Gear-shift levers, steering-column jackets
Tridon Ltd.	Burlington, Ont. Oakville, Ont.	Clamps, electronic flashers, wiper blades
Waterville Cellular Products Ltd.	Waterville, Ont.	Rubber products, padded auto instrument panels
Woodbridge Foam Corporation	Toronto, Ont.	Sets, other foam rubber components

A comprehensive listing of Canadian parts manufacturers is available through the Automotive Parts Manufacturers Association.

TABLE 7.3

JOINT VENTURE AND DIRECT INVESTMENT PROJECTS IN 1986
AUTOMOTIVE PARTS

Country	Companies	Place	Project
Japan	Woodbridge Foam Corp./ Inoue MTP Co. Ltd.	Woodbridge, Ontario	Finished auto seats and trim components
	TRW/Tokai Rika	To be decided	Manufacture of seat belts
	Fuji Tool and Die/Magna International Inc.	Rexdale, Ontario	Manufacture of press dies for cars
	Rockwell International Corp./Mitsubishi Steel	Lacolle, Quebec Chatham and Milton	Automotive suspension components and systems
	Fukuda Press Industry/Press Giken Kogyo	Tottenham, Ontario	Fully integrated stamping, welding, painting and assembly of auto structural components
	Yazaki Corp./VDO	Barrie, Ontario	Speedometers, other instrument parts
	Waterville Cellular/Toyoda Gosei Co.	St. Jérome, Quebec	Weather strips
	Amada Co. Ltd.	Oakville, Ontario	Metal fabricating equipment
	Aida Engineering	Mississauga, Ontario	Stamping presses
	Aclo Compounder Inc. (Purchased by Mitsubishi Corp.)	Cambridge, Ontario	Plastic compounds