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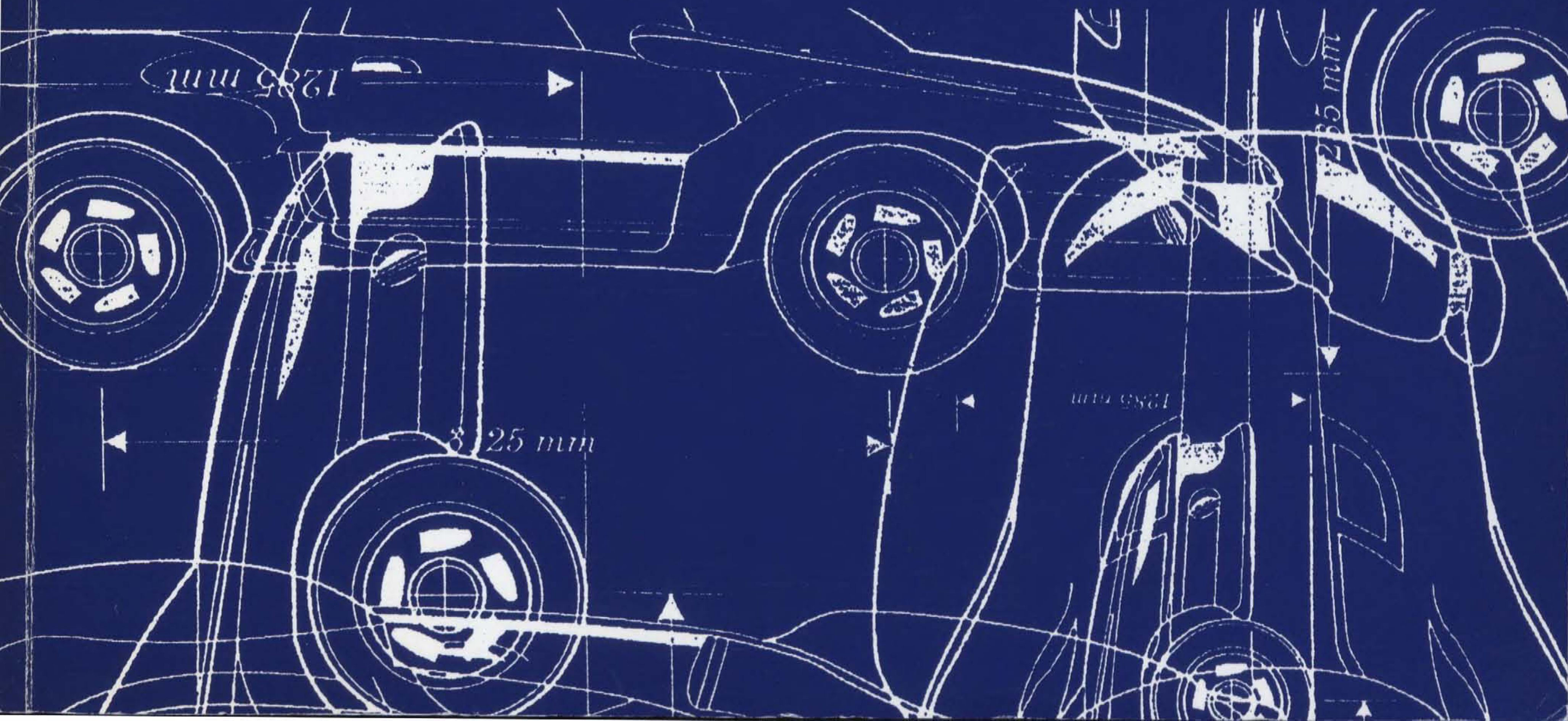
STATISTICAL REVIEW OF THE CANADIAN AUTOMOTIVE INDUSTRY: 1988



STATISTICAL REVIEW OF THE CANADIAN AUTOMOTIVE INDUSTRY: 1988

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August 1989

Cat. No. C25-7/1988
ISBN 0-662-56912-1

PU 3283

Canadian Automotive Developments in 1988

The Canadian automotive industry continued to exhibit strong performance in 1988, with record vehicle production and sales close to the peak levels achieved over the previous three years. Vehicle production was up 22 percent from 1987, setting a new record of 1 977 000 units. This increase is largely attributable to the return to full production at General Motors' Sainte-Thérèse car plant and its Oshawa truck plant. Ford also increased production at its Oakville car plant, as did Chrysler in the new Bramalea plant.

In 1988, General Motors completed a major conversion of the Autoplex in Oshawa, making it the largest, most modern vehicle assembly complex in North America. Autoplex includes a truck plant, two car plants and a contiguous stamping plant. The stampings, which utilize Canadian steel, are delivered on a "just-in-time" basis to the Autoplex assembly plants. In Quebec, the Sainte-Thérèse car assembly plant operated at full capacity following conversion from rear-wheel drive to front-wheel drive models.

During 1988, Chrysler completed the integration of the former American Motors (Canada) Inc. operations into those of Chrysler Canada. The former American Motors' sales and marketing organization was reorganized into a new division called the Jeep/Eagle Division. Significantly, Chrysler's four Canadian assembly plants ranked among the top five in the Corporate Quality Audit of all Chrysler North American plants for the 1988 model year.

Ford's accomplishments included general plant upgrades and installation of a two-component clear coat paint facility at the St. Thomas assembly plant during 1988. The Niagara Glass plant also became the fourth plant in Canada to earn Ford's Q1 Quality Award.

Honda rationalized production on a North American basis and converted the Alliston assembly plant to the production of the Civic three-door hatchback model. This plant produces vehicles for the entire North American market, including Hawaii. Honda also began construction of an in-house stamping facility for major body parts.

Two new assembly plants came on-stream in 1988: Toyota in Cambridge, Ontario; and Hyundai in Bromont, Quebec. The Toyota plant, with an annual capacity of 50 000 units, is expected to produce about 15 000 units in 1989, with a second shift to be added later in the year. The Hyundai plant, where assembly of Sonatas began in December 1988, is expected to produce about 25 000 units in 1989, with a total capacity of 100 000 units per year.

Car sales, while down slightly from 1987, remained high by historical standards with over one million units sold in 1988. Sales of commercial vehicles were up 8.7 percent compared to 1987, and set a new sales record. North American manufacturers increased passenger car market share to 68.6 percent, up from 65.8 percent in 1987 and continued their dominance of the growing light truck market.

The automotive industry continues to invest in plant and equipment and to introduce new production processes. Between 1978 and 1988, Canadian vehicle and parts manufacturers invested more than $12 billion, of which approximately $2.5 billion was invested in 1988. Total capital spending by Canadian automotive parts producers during this period was more than $4.5 billion. Investment in the auto parts sector is expected to accelerate during the next few years as parts producers respond to changing market demands. For example, tire companies are planning to invest approximately $1 billion to modernize facilities and European and Japanese parts producers have committed to invest approximately $2 billion over the next few years.

In 1988, Industry, Science and Technology Canada launched the Automotive Component Initiative (ACI), a sector campaign designed to support the Canadian automotive components manufacturing sector as it improves competitiveness and responds to new market requirements.

On January 2, 1988, the Canada-U.S. free trade negotiations culminated in the signing of the FTA. Both countries subsequently passed the required legislation. In the automotive sector, the FTA governs trade in motor vehicles, original equipment parts, aftermarket (replacement) parts and tires. Tariffs on vehicles, original equipment parts and tires will be phased out in 10 years provided products meet the new automotive rules of origin. The tariffs on aftermarket parts will be eliminated by 1993.

The Auto Pact remains in effect for existing Canadian participants as listed in the Agreement. The Agreement limits the benefits of duty-free entry from third countries to companies which currently qualify or will qualify for Auto Pact status during the 1989 model year.

Stricter new rules of origin for duty-free trade in vehicles under the Agreement (50 percent Canadian or U.S. content in terms of direct production costs) create a significant incentive for increased sourcing of North American parts.

Canadian safeguards have been maintained under the Agreement. Canadian Auto Pact companies may continue to import duty-free in return for meeting Auto Pact production safeguards. Canadian parts producers will enjoy duty-free access to the U.S. market. As recognized in the Agreement, until 1996, Canada will continue those duty remission arrangements negotiated with certain manufacturers related to production value-added commitments. Exports to the U.S. are no longer eligible under the export based duty remission programs as of January 1, 1989, and to third countries as of January 1, 1998. Under the Agreement, Canada has agreed to terminate the prohibition on the entry of used and second-hand vehicles within five years.

A select panel of informed persons from both countries has been established to assess the state of the North American industry and to propose public policy measures and private initiatives to improve its competitiveness in domestic and foreign markets.

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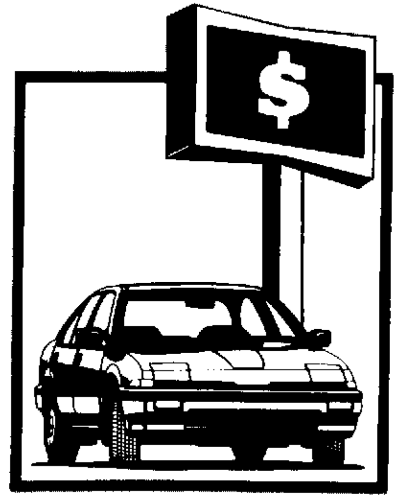
NOTE: Because of the variety of sources from which these statistical tables have been derived or taken, totals will not always agree.



Sales

Table 1.1

Retail Sales of Motor Vehicles in Canada, 1965-1988 (000 units)

Year	Automobiles Domestic*	Automobiles Overseas** Import	Automobiles Total	Trucks Domestic*	Trucks Overseas** Import	Trucks Total	Total Vehicles
1965	634	75	709	120	2	122	831
1970	497	143	640	125	9	134	774
1975	836	154	990	310	17	327	1 317
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
1987	701	364	1 065	412	51	463	1 528
1988	725	332	1 057	460	49	509	1 566

* North American-Built (includes Mexico)
** Includes captives

Source: Statistics Canada

Retail Sales of Motor Vehicles in the United States, 1965-1988 (000 Units)

	Automobiles			Trucks			
Year	Domestic*	Overseas** Import	Total	Domestic*	Overseas** Import	Total	Total Vehicles
1965	8 763	569	9 332	1 539	44	1 583	10 915
1970	7 120	1 285	8 405	1 746	65	1 811	10 216
1975	7 053	1 587	8 640	2 249	231	2 480	11 120
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	11 039	3 912	766	4 678	15 717
1986	8 216	3 235	11 451	3 944	923	4 867	16 318
1987	6 871	3 197	10 068	3 915	824	4 739	14 807
1988	7 539	3 099	10 638	4 547	604	5 151	15 789

* North American-Built (includes Mexico)
** Includes captives

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

Canadian Car Sales* by Size by North American Companies, 1970-1988 (000 Units)

Year	Sub-Compact	Percent Total	Compact	Percent Total	Inter-Mediate	Percent Total	Full-Size	Percent Total	Luxury	Percent Total	Total Sales
1970	9	1.8	101	20.4	156	31.5	215	43.4	14	2.8	495
1975	75	10.3	186	25.7	229	31.6	223	30.8	12	1.7	725
1979	152	17.6	237	27.5	243	28.2	203	23.5	27	3.1	862
1980	140	18.9	229	30.9	206	27.8	148	20.0	18	2.4	741
1981	137	21.5	198	31.1	184	28.9	105	16.5	13	2.0	637
1982	157	32.4	125	25.8	145	29.9	51	10.5	7	1.4	485
1983	206	33.6	135	22.0	198	32.2	66	10.7	9	1.5	614
1984	235	32.9	179	25.1	207	29.0	79	11.1	14	2.0	714
1985	237	30.3	202	25.8	246	31.5	80	10.2	17	2.2	782
1986	233	30.9	187	24.8	235	31.2	82	10.9	17	2.3	754
1987	107	14.6	298	40.5	230	31.3	68	9.3	32	4.4	735
1988	73	9.7	343	45.6	216	28.7	92	12.2	28	3.7	752

* Includes captives

Source: Motor Vehicle Manufacturers' Association by Ward's Classification

Table 1.4

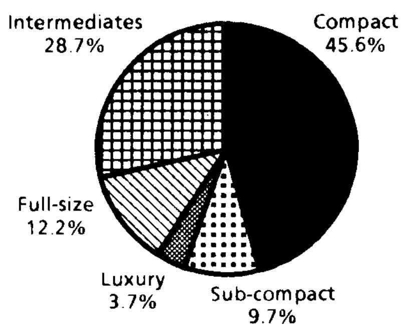
United States Sales of North American* Cars by Size, 1970-1988 (Units)

Year	Sub-Compact	Percent Total	Compact	Percent Total	Inter-Mediate	Percent Total	Full-Size	Percent Total	Luxury	Percent Total	Total Sales
1970	138	1.9	1 157	16.2	2 435	34.0	3 033	42.4	389	5.4	7 152
1975	1 167	17.3	1 679	24.8	1 975	29.2	1 588	23.5	352	5.2	6 761
1979	1 762	21.4	1 936	23.5	2 335	28.4	1 709	20.8	484	5.9	8 226
1980	1 671	25.4	1 675	25.5	1 836	27.9	1 075	16.3	321	4.9	6 578
1981	1 661	26.8	1 523	24.5	1 742	28.1	952	15.3	328	5.3	6 206
1982	1 739	30.2	1 104	19.2	1 618	28.1	928	16.1	367	6.4	5 756
1983	2 035	29.9	925	13.6	2 247	33.1	1 158	17.0	431	6.3	6 796
1984	2 306	29.0	1 309	16.5	2 457	30.9	1 232	15.5	647	8.1	7 951
1985	1 297	15.8	2 563	31.2	2 464	30.0	1 077	13.1	804	9.8	8 205
1986	1 325	16.1	2 461	30.0	2 540	30.9	1 116	13.6	772	9.4	8 214
1987	1 100	15.5	2 389	33.7	2 026	28.6	925	13.1	640	9.0	7 080
1988	1 019	13.5	2 781	36.9	2 017	26.8	1 052	14.0	670	8.9	7 539

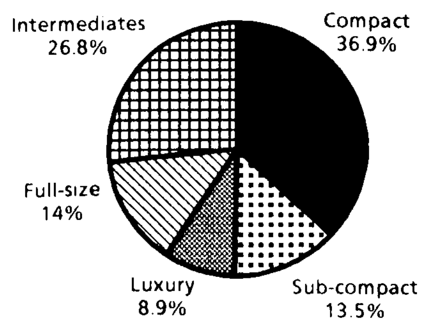
* Includes Mexico but does not include captives

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

1988



Canada



United States

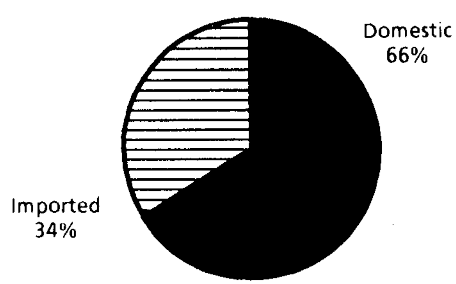
Table 1.5

Canadian Sales of New Passenger Cars by Origin, 1965-1988
(000 Units)

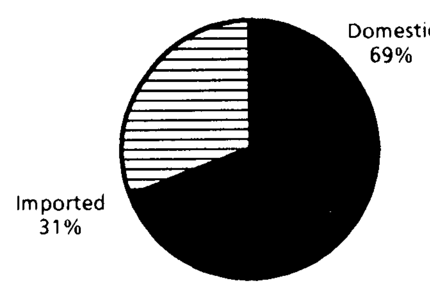
Year	Total Sales Volume	Domestic* Volume	Domestic* Percent	Offshore Imports** Volume	Offshore Imports** Percent	Imports from Japan** Volume	Imports from Japan** Percent
1965	709	634	89.4	75	10.6	2	0.3
1970	640	497	77.7	143	22.3	66	10.3
1975	989	836	84.5	154	15.6	96	9.7
1979	1 003	864	86.1	139	13.9	80	8.0
1980	932	741	79.5	191	20.5	138	14.8
1981	904	647	71.6	257	28.4	208	23.0
1982	713	489	68.6	224	31.4	178	25.0
1983	843	625	74.1	218	25.9	177	21.0
1984	971	725	74.7	246	25.3	171	17.6
1985	1 137	795	69.9	342	30.1	199	17.5
1986	1 091	762	69.8	329	30.2	198	18.1
1987	1 065	701	65.8	364	34.2	243	22.8
1988	1 057	725	68.6	332	31.4	244	23.1

* North-American Built (includes Mexico)
** Includes captives

Source: Statistics Canada



1987



1988

Table 1.6

U.S. Sales of New Passenger Cars by Origin, 1965-1988 (000 Units)

Year	Total Sales	Domestic*		Offshore Imports**		Imports from Japan**	
	Volume	Volume	Percent	Volume	Percent	Volume	Percent
1965	9 233	8 673	93.9	469	5.1	18	0.2
1970	8 365	7 116	85.1	1 249	14.9	313	3.7
1975	8 615	7 050	81.8	1 564	18.2	808	9.4
1979	10 647	8 328	78.2	2 319	21.8	1 834	17.2
1980	8 979	6 578	73.3	2 400	26.7	1 908	21.2
1981	8 533	6 206	72.7	2 328	27.3	1 859	21.8
1982	7 979	5 757	72.2	2 222	27.8	1 801	22.6
1983	9 182	6 795	74.0	2 387	26.0	1 916	20.9
1984	10 391	7 952	76.5	2 439	23.5	1 906	18.3
1985	11 039	8 205	74.3	2 834	25.7	2 218	20.1
1986	11 453	8 215	71.7	3 238	28.3	2 376	20.7
1987	10 278	6 886	67.0	3 392	33.0	2 330	22.7
1988	10 638	7 539	70.9	3 099	29.1	2 178	20.5

* North American-Built (includes Mexico)
** Includes captive imports for 1980 and subsequent years

Source: *Ward's Automotive Reports*

Table 1.7

Road Motor-Vehicle Registrations in Canada, 1980-1987
(000 Units)

Year	Passenger Automobiles	Trucks and Truck Tractors	Buses	Motorcycles	Mopeds	Other	Total
1980	10 256	2 903	53	389	NA	118	13 719
1981	10 199	3 138	54	407	NA	53	13 851
1982	10 530	3 239	54	431	NA	55	14 309
1983	10 732	3 308	55	466	NA	59	14 620
1984	10 781	3 047	52	470	NA	56	14 406
1985	11 118	3 095	53	453	35	64	14 818
1986	11 586	3 156	56	430	35	72	15 335
1987	11 773	3 508	59	414	34	76	15 864

Source: Statistics Canada

Table 1.8

International Sourcing Pattern of Original Equipment Parts of Four Major Motor-Vehicle Manufacturers *
(Purchases from In-house Suppliers), 1965-1988
($ Millions)

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)	
1965	17	522	(505)
1970	454	1 153	(700)
1975	797	2 209	(1 412)
1979	2 362	4 703	(2 341)
1980	1 604	3 992	(2 388)
1981	2 119	4 957	(2 839)
1982	2 892	5 374	(2 483)
1983	2 360	5 918	(3 558)
1984	3 960	7 813	(3 854)
1985	4 621	8 490	(3 869)
1986	4 869	9 710	(4 841)
1987	4 579	7 251	(2 671)
1988	3 979	8 752	(4 773)

* General Motors, Ford, Chrysler and Navistar

Source: Compiled from company responses to the Reisman Inquiry (1965-1977) and company Auto Pact Reports (1979-1988)

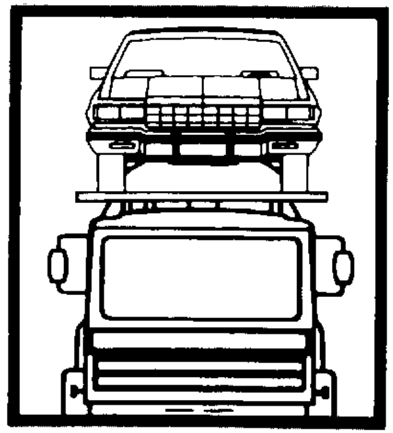
Table 1.9

International Sourcing Pattern of Original Equipment Parts of Four Major Motor-Vehicle Manufacturers *
(Purchases from Independent Suppliers), 1965-1988
($ Millions)

Model Year	U.S Purchases from Independent Suppliers in Canada	Canadian Purchases from Independent Suppliers in U.S.A.	Column (A) Less Column (B)
	(A)	(B)	
1965	74	236	(162)
1970	487	505	(18)
1975	876	1 051	(175)
1979	1 812	1 560	252
1980	1 253	1 226	27
1981	1 385	1 451	(66)
1982	1 477	1 844	(367)
1983	1 922	2 067	(145)
1984	2 617	3 034	(418)
1985	3 381	3 871	(490)
1986	3 736	4 619	(883)
1987	3 819	4 385	(566)
1988	3 500	4 838	(1 338)

* General Motors, Ford, Chrysler and Navistar

Source: Compiled from company responses to the Reisman Inquiry (1965-1977) and Company Auto Pact Reports (1979-1988)



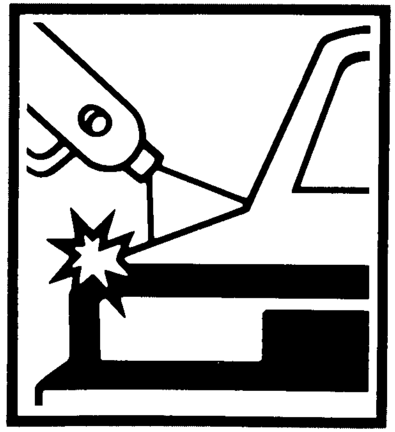
Shipments

Value of Shipments in Canadian Automotive Industries, 1976-1988 ($ Millions)

Year	Motor-Vehicle Manufacturers	Truck Body & Trailer Manufacturers	Motor Vehicle Parts & Accessories Manufacturers	Total
1976	7 276	749	3 418	11 443
1977	8 610	713	4 139	13 462
1978	10 070	861	5 120	16 051
1979	10 724	1 042	4 897	16 663
1980	10 071	978	4 034	15 083
1981	11 403	1 005	4 879	17 287
1982	12 344	743	5 877	18 964
1983	15 591	722	8 358	24 671
1984	21 263	1 002	11 494	33 759
1985	24 599	1 148	12 923	38 670
1986	25 094	1 302	12 922	39 318
1987[e]	22 154	1 367	12 739	36 260
1988[e]	26 795	1 433	13 684	41 912

Source: Statistics Canada

e: Estimate



Production

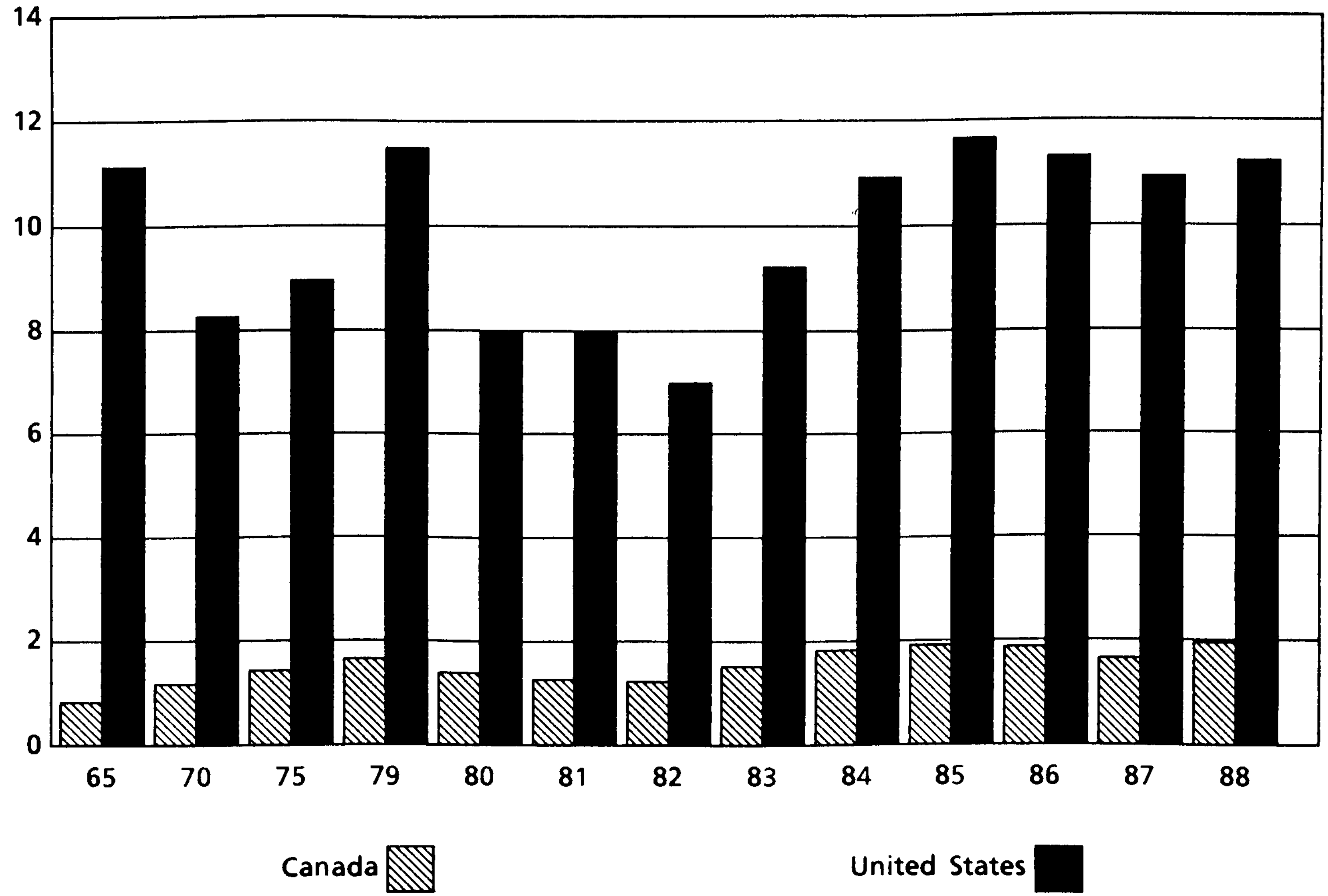
Table 3.1

North American Production of Motor-Vehicles, 1965-1988
(000 Units)

Year	Canada Volume	Canada Percent	U.S.A. Volume	U.S.A. Percent	North America Total Volume
1965	846	7.1	11 114	92.9	11 960
1970	1 193	12.6	8 263	87.4	9 456
1975	1 442	13.9	8 965	86.1	10 407
1979	1 632	12.5	11 475	87.5	13 107
1980	1 374	14.6	8 010	85.4	9 384
1981	1 280	13.9	7 941	86.1	9 221
1982	1 236	15.0	6 985	85.0	8 221
1983	1 502	14.0	9 226	86.0	10 728
1984	1 830	14.3	10 924	85.7	12 754
1985	1 930	14.2	11 648	85.8	13 578
1986	1 859	14.1	11 317	85.9	13 176
1987	1 648	13.1	10 908	86.9	12 556
1988	1 977	15.0	11 197	85.0	13 174

Source: *Ward's Automotive Reports*

North American Production of Motor-Vehicles, 1965-1988
(000 Units)



North American Production of Passenger Cars, 1965-1988 (000 Units)

Year	Canada Volume	Canada Percent	U.S.A. Volume	U.S.A. Percent	North America Total Volume
1965	707	7.0	9 329	93.0	10 036
1970	940	12.6	6 546	87.4	7 486
1975	1 055	13.6	6 706	86.4	7 761
1976	1 146	11.9	8 493	88.1	9 639
1977	1 162	11.2	9 211	88.8	10 373
1978	1 162	11.2	9 174	88.8	10 336
1979	997	10.6	8 422	89.4	9 419
1980	847	11.7	6 372	88.3	7 219
1981	784	11.1	6 251	88.9	7 035
1982	788	13.4	5 073	86.6	5 861
1983	955	12.3	6 782	87.7	7 737
1984	1 023	11.6	7 773	88.4	8 796
1985	1 071	11.6	8 186	88.4	9 257
1986	1 062	11.9	7 829	88.1	8 891
1987	811	10.3	7 100	89.7	7 911
1988	1 028	12.6	7 118	87.4	8 146

Source: *Ward's Automotive Reports*

Table 3.3

Canadian Truck* Production, 1975-1988
(000 Units)

Year	Light	Percent of Total	Medium and Heavy-Duty	Percent of Total	Total
1975	367	94.8	20	5.2	387
1976	483	96.4	18	3.6	501
1977	576	95.7	26	4.3	602
1978	630	96.0	26	4.0	656
1979	607	95.6	28	4.4	635
1980	506	96.0	21	4.0	527
1981	480	96.6	17	3.4	497
1982	434	96.9	14	3.1	448
1983	539	98.5	8	1.5	547
1984	794	97.8	18	2.2	812
1985	834	97.4	22	2.6	856
1986	771	97.2	22	2.8	793
1987	816	97.4	22	2.6	838
1988	922	97.1	28	2.9	950

* Includes vans

Source: *Ward's Automotive Reports*

U.S. Truck* Production, 1965-1988
(000 Units)

Year	Light	Percent of Total	Medium	Percent of Total	Heavy-Duty	Percent of Total	Total
1965	1 325	76.5	271	15.7	135	7.8	1 731
1970	1 359	80.3	194	11.5	140	8.3	1 693
1975	1 945	85.6	200	8.8	126	5.5	2 271
1976	2 637	88.5	199	6.7	143	4.8	2 979
1977	3 049	88.8	204	5.9	181	5.2	3 434
1978	3 263	88.0	224	6.0	219	5.9	3 706
1979	2 608	85.9	189	6.2	239	7.9	3 036
1980	1 387	83.2	100	6.0	181	10.9	1 668
1981	1 445	85.0	89	5.2	167	9.8	1 701
1982	1 721	90.3	49	2.6	136	7.1	1 906
1983	2 096	86.5	127	5.2	201	8.3	2 424
1984	2 769	90.0	68	2.2	238	7.7	3 075
1985	3 046	90.7	78	2.3	233	6.9	3 357
1986	3 128	92.2	51	1.5	213	6.3	3 392
1987	3 528	92.4	55	1.4	234	6.1	3 817
1988	3 810	92.5	62	1.5	249	6.0	4 121

* Includes vans

Source: *Ward's Automotive Reports*

Table 3.5

Top Ten Vehicle Manufacturers in the World by Total Output, 1986

Company	Total Output (Units)
General Motors - U.S.A	8 391 068
Ford Motor - U.S.A.	5 758 721
Toyota - Japan	3 737 309
Volkswagen - West Germany	2 767 621
Nissan - Japan	2 594 766
Peugeot - Citroen - France	1 965 310
Renault - France	1 935 579
Chrysler - U.S.A	1 900 971
Fiat - Italy	1 775 452
Vaz - U.S.S.R.	1 675 000

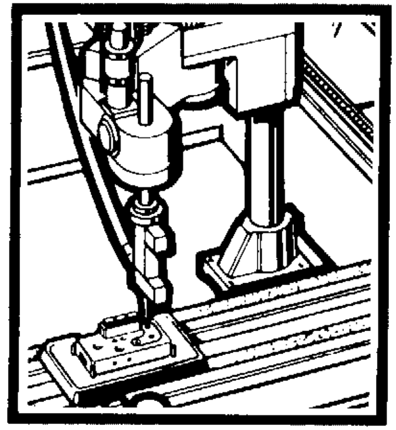
Source: Motor Vehicle Manufacturers' Association (MVMA) of the United States, *World Motor Vehicle Data*, 1988

Table 3.6

World Motor-Vehicle Production by Country, 1965-1988 (000 Units)

	1965	1970	1975	1980	1984	1985	1986	1987	1988
Japan	1 876	5 289	6 941	11 043	11 393	12 271	12 260	12 249	12 700
U.S.A.	11 118	8 267	8 991	8 010	10 924	11 672	11 373	10 975	11 262
West Germany	2 976	3 842	3 186	3 879	4 046	4 446	4 578	4 614	4 625
France	1 642	2 750	2 861	3 378	3 062	3 016	3 195	3 493	3 698
U.S.S.R.	634	916	1 964	2 199	2 209	2 200	2 226	2 100	2 180
Italy	1 176	1 854	1 459	1 612	1 601	1 573	1 913	1 913	2 111
Canada	852	1 157	1 446	1 373	1 878	1 937	1 864	1 564	1 960
Spain	229	536	814	1 182	1 309	1 418	1 307	1 433	1 866
U.K.	2 177	2 098	1 648	1 313	1 134	1 311	1 203	1 342	1 545
South Korea	0	29	36	123	165	378	602	977	1 084
Brazil	185	416	930	1 165	836	967	1 056	900	1 069

Source: *Automotive News* (ranked by 1988 Production)



Investment

Table 4.1

New Capital Expenditures In Canadian Automotive Industries, 1977-1988 ($ Millions)

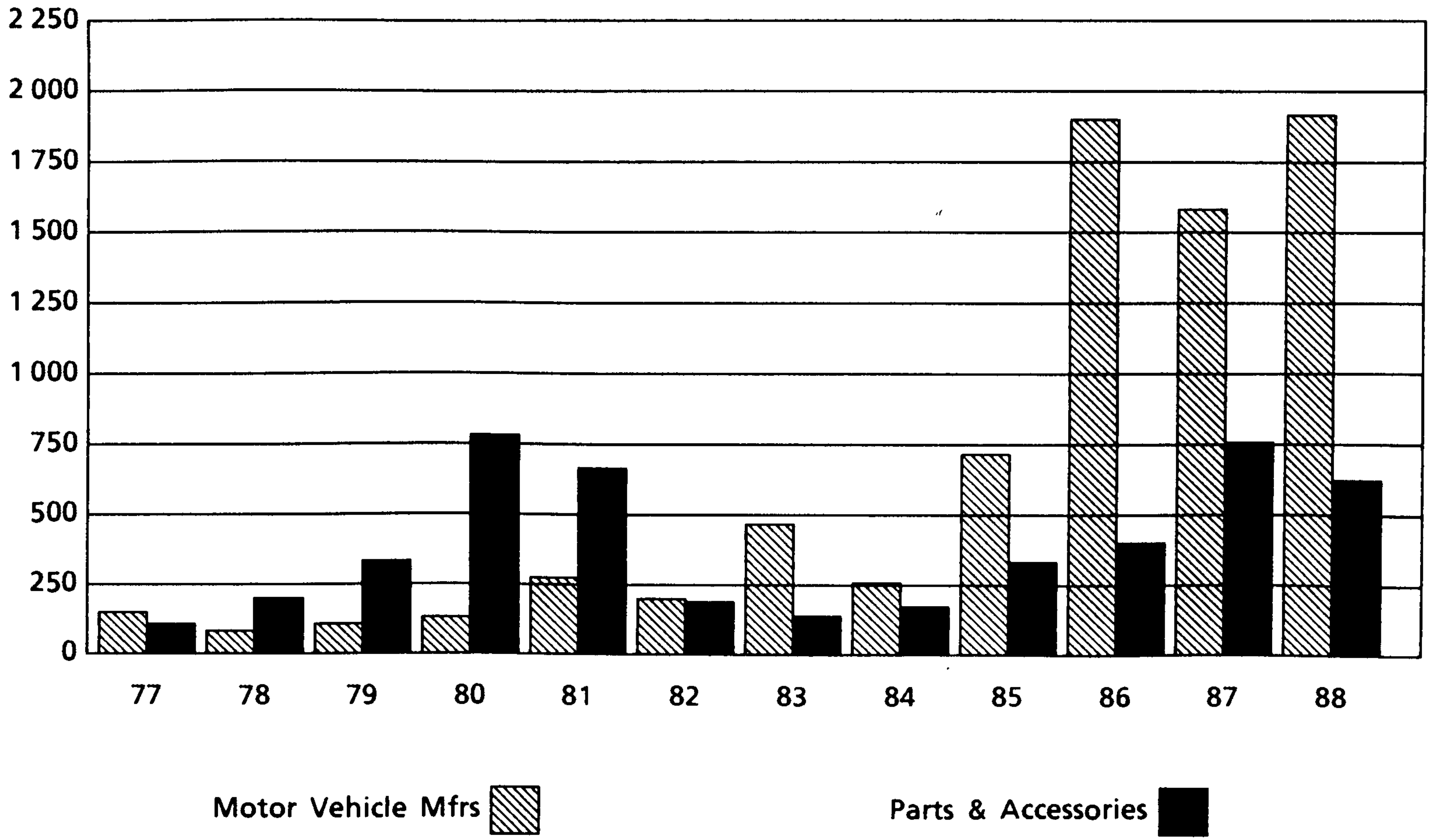
Year	Motor Vehicle Manufacturers (SIC 323)	Truck-Body Manufacturers (SIC 324)	Motor Vehicle Parts & Accessories (SIC 325)	Total
1977	153	24	110	287
1978	84	15	204	303
1979	111	42	331	484
1980	136	47	781	964
1981	273	32	667	972
1982	203	34	189	426
1983	463	13	141	617
1984	256	13	171	440
1985	714	9	332	1 055
1986	1 897	19	403	2 319
1987	1 584	27	755	2 366
1988*	1 917	20	624	2 561

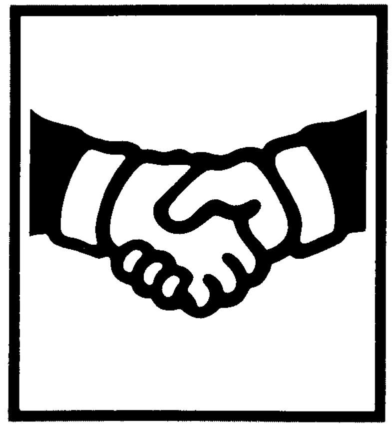
* Preliminary

Source: Statistics Canada

Graph 4.1

New Capital Expenditures in Canadian Automotive Industries, 1977-1988
($ Millions)





Trade and Auto Pact Data

Table 5.1

Canadian-Overseas Trade in Automotive Products*, 1965-1988
($ Millions)

	1965	1970	1975	1980	1984	1985	1986	1987	1988
Canadian Exports									
Motor Vehicles	92	141	421	634	346	216	222	187	303
Parts	32	99	180	420	280	307	418	382	346
Tires And Tubes	4	3	5	31	24	45	42	32	33
Re-exports	5	9	10	89	174	134	197	195	238
Total	133	252	616	1 174	824	702	879	796	920
Canadian Imports									
Motor Vehicles	115	240	410	1 159	2 176	3 107	3 954	4 080	3 936
Parts	21	130	206	355	1 328	1 459	1 761	1 831	1 630
Tires And Tubes	2	19	82	208	207	207	220	261	243
Total	138	389	698	1 722	3 711	4 773	5 935	6 172	5 809
Balances									
Motor Vehicles	(23)	(99)	11	(525)	(1 830)	(2 891)	(3 732)	(3 893)	(3 633)
Parts	11	(31)	(26)	65	(1 048)	(1 152)	(1 343)	(1 449)	(1 284)
Tires And Tubes	2	(16)	(77)	(177)	(183)	(162)	(178)	(229)	(210)
Re-exports	5	9	10	89	174	134	197	195	238
Total	(5)	(137)	(82)	(548)	(2 887)	(4 071)	(5 056)	(5 376)	(4 889)

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

Source: Statistics Canada

Table 5.2

Canada-United States Trade in Automotive Products, 1965-1988
($ Millions)

	1965	1970	1975	1980	1984	1985	1986	1987	1988
United States Imports From Canada*									
Cars	74	1 538	2 858	4 452	13 085	15 277	16 428	13 505	16 326
Trucks	21	589	932	2 218	5 880	6 422	5 804	6 838	7 363
Parts	151	1 127	2 045	3 405	10 287	11 512	11 577	11 579	11 752
Tires And Tubes	4	15	68	231	598	592	675	661	520
Total	250	3 269	5 903	10 306	29 850	33 803	34 484	32 583	35 961
Canadian Imports From United States									
Cars	94	659	2 183	3 388	6 085	8 566	8 628	8 691	8 605
Trucks	60	275	942	1 217	2 039	2 570	2 824	3 282	3 076
Parts	797	2 107	4 425	7 600	15 446	17 438	17 635	16 397	15 348
Tires And Tubes	10	24	174	146	345	264	227	310	351
Total	961	3 065	7 724	12 351	23 915	28 838	29 314	28 680	27 380
Balances									
Cars	(20)	879	675	1 064	7 000	6 711	7 800	4 814	7 721
Trucks	(39)	314	(10)	1 001	3 841	3 852	2 980	3 556	4 287
Parts	(646)	(980)	(2 380)	(4 195)	(5 159)	(5 926)	(6 058)	(4 818)	(3 596)
Tires And Tubes	(6)	(9)	(106)	85	253	328	448	351	169
Total	(711)	204	(1 821)	(2 045)	5 935	4 965	5 170	3 903	8 581

* 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.

Source: Statistics Canada

Table 5.3

Overall Net Production to Net Sales-Value Ratios* Achieved by Auto Pact Companies** in Canada, 1975-1988 (Percent)

	MODEL YEAR									
	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
Passenger Vehicles										
(Required Ratio: range 95-100)										
Net Sales-Value Ratio Achieved (All companies)	122	106	123	202	196	173	174	177	162	153
Commercial Vehicles										
(Required Ratio: range 75-100)										
Net Sales-Value Ratio Achieved (All companies)	101	115	140	238	272	231	192	191	159	133
Buses										
(Required Ratio: range 85-100)										
Net Sales-Value Ratio Achieved (All companies)	114	199	273	213	243	312	324	239	163	189

* 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 vehicles sales for all Auto Pact companies

** Based on 18 major manufacturers

Source: Compiled from company Auto Pact reports to Industry, Science and Technology Canada

Table 5.4

Percent CVA/COS Achieved by Auto Pact Producers*, 1975-1988
($ Millions)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
Cost of vehicle sales in Canada of Auto Pact producers (Model Year)	4 545	8 757	8 659	6 327	6 752	10 281	13 022	15 002	15 340	15 440
Total CVA produced (Model Year)	2 987	4 659	5 368	5 759	5 847	8 504	10 210	11 282	10 113	11 035
Difference between Cost of Sales and CVA produced	1 558	4 020	3 235	568	905	1 777	2 812	3 720	5 227	4 405
Total achieved CVA as percentage of Cost of Sales	66	53	62	91	87	83	78	75	66	72

CVA = Canadian Value Added
COS = Cost of Sales

* Based on 18 major manufacturers of vehicles

Source: Auto Pact company reports to Industry, Science and Technology Canada

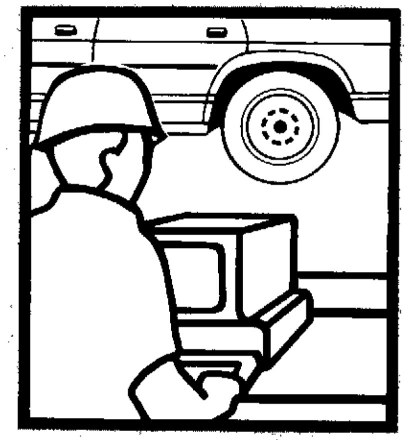
Table 5.5

Total Canadian Value-Added by Category of Production for the Three Major Vehicle Manufacturers in Canada*, 1965-1988 ($ Millions)

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 Percent of Total CVA
	A	B	C	D = A+B+C	(B+C)/D
1965	380	576	100	1 056	64.0
1970	483	510	651	1 644	70.6
1975	876	733	1 106	2 715	67.7
1980	1 322	1 087	1 755	4 164	68.3
1981	1 345	1 273	2 218	4 836	72.2
1982	1 457	1 233	2 256	4 946	70.5
1983	1 604	1 446	2 542	4 592	71.3
1984	1 981	1 797	3 917	8 695	77.2
1985	2 182	3 094	5 095	10 371	79.0
1986	2 432	2 501	5 532	10 465	76.8
1987	2 365	1 856	5 124	9 345	74.7
1988	2 877	3 114	5 044	11 035	73.9

* General Motors, Ford and Chrysler Canada

Source: 1965-1977 data prepared by the Reisman Commission; 1978-1988 data prepared by Industry, Science and Technology Canada



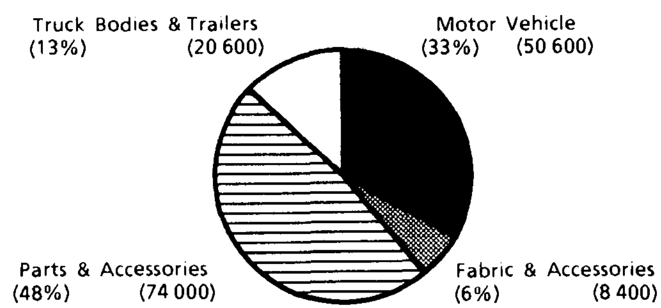
Employment

Table 6.1

Employment Related to Automotive Manufacturing in Canada, 1965-1988 (000)

Calendar Year	Motor Vehicle Assembly (SIC 323)	Truck Bodies & Trailers (SIC 324)	Automotive Parts & Acc. (SIC 325)	Automobile Fabric & Acc. (SIC 188)	Total
1965	39.8	5.8	35.3	1.9	82.8
1970	37.5	8.4	36.4	3.7	86.0
1975	43.4	14.4	41.2	4.8	103.8
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	129.3
1986	49.9	14.1	63.5	5.1	132.6
1987	50.2	17.8	70.6	7.6	146.2
1988	50.6	20.6	74.0	8.4	153.6

Source: Statistics Canada (As of January 1987, major changes to the coverage of firms in survey sampling have taken place and a re-assignment of some establishments to more appropriate industry, geographic location and/or employment size has resulted. Therefore, 1986 figures and preceding years have been adjusted accordingly.)



1988

Table 6.2

Employment Related to Automotive Manufacturing in the U.S., 1972-1988
Annual Average (000)

Year	Total Motor Vehicles Equipment (SIC 371)	Motor Vehicles (3711)	Trucks and Bus Bodies (3713)	Parts and Accessories (3714)	Automotive Stampings (SIC 3465)
1972	875	415	46	383	105
1973	977	462	51	430	111
1974	908	416	55	403	96
1975	792	375	46	353	82
1976	881	416	44	399	100
1977	938	440	48	424	110
1978	977	452	51	444	114
1979	995	464	46	444	115
1980	789	368	40	350	95
1981	789	359	37	363	94
1982	705	321	31	325	82
1983	773	363	32	344	89
1984	867	389	40	388	99
1985	873	403	38	389	102
1986	843	381	38	379	101
1987	842	368	44	384	99
1988	850	358	75	397	96

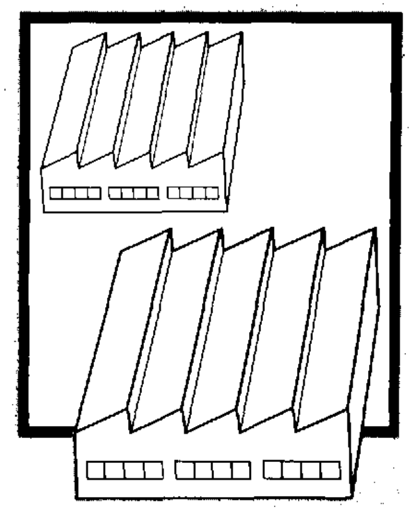
Source: U.S. Bureau of Labor Statistics

Table 6.3

Canadian Automotive Parts Industry by Number of Employees, 1986

Number of Employees	Number of Establishments	Percent of Total Establishments	Value of Shipments ($ Million)	Percent of Total Shipments
Fewer than 100	375	68.7	989 531	7.7
100-500	145	26.5	4 250 070	32.9
500 or more	26	4.8	7 682 123	59.4
Total	546	100.0	12 921 724	100.0

Source: Statistics Canada



Major Automotive Plants in Canada

Table 7.1

Major Motor-Vehicle Assembly Plants in Canada

Location	Company/Plant Name	Main Products
British Columbia		
Burnaby	Freightliner of Canada Ltd.	Trucks (heavy-duty)
Kelowna	Western Star Trucks Inc.	Trucks (heavy-duty)
North Vancouver	Pacific Truck and Trailer Ltd.	Trucks (heavy-duty)
Manitoba		
Winnipeg	New Flyer Industries Ltd.	Buses
Winnipeg	Motor Coach Industries Ltd.	Buses
Ontario		
Alliston	Honda of Canada Mfg. Inc.	Cars
Brampton	Chrysler Canada Ltd.-Jeep/Eagle Division	Jeeps
Bramalea	Chrysler Canada Ltd.-Jeep/Eagle Division	Cars
Cambridge	Toyota Canada Inc.	Cars
Chatham	Navistar International Corporation Canada	Trucks (heavy-duty)
Ingersoll	Canadian Automobile Mfg. Inc. (CAMI)	Cars/Trucks (light)
Oakville	Ford Motor Company of Canada Ltd. Ontario Truck plant (Ford) Mack Canada Inc.	Cars Trucks (light) Trucks (heavy-duty)

Table 7.1 (continued)

Major Motor-Vehicle Assembly Plants In Canada

Location	Company/Plant Name	Main Products
Oshawa	General Motors of Canada Ltd. Truck plant (GM)	Cars (2 plants) Trucks (light)
Mississauga	Ontario Bus Industries Inc.	Buses
Scarborough	General Motors of Canada	Vans and Wagons
St. Thomas	Ford Motor Company of Canada Ltd.	Cars
Windsor	Chrysler Canada Ltd.	Vans and Wagons (2 plants)
Quebec		
Bromont	Hyundai Auto Canada Inc.	Cars
Saint-Eustache	Greyhound Canada Inc.	Buses
Sainte-Claire	Prévost Car Inc.	Buses
Sainte-Thérèse	Canadian Kenworth Company (a division of Paccar Canada Ltd.)	Trucks (heavy-duty)
Sainte-Thérèse	General Motors of Canada	Cars
Nova Scotia		
Halifax	Volvo Canada Ltd.	Cars

Source: Compiled from information supplied by the companies

Table 7.2

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Location	Main Products
	In-house Facilities	
Chrysler Canada Ltd.		
Trim plant	Ajax, Ontario	Door panels, seat cushions, backs
Aluminum casting plant	Etobicoke, Ontario	Pistons, water pump bodies, transmissions, transfer cases
Trim plant	Stratford, Ontario	Soft interior trim components
Trim plant	Guelph, Ontario	Plastic automotive components
Ford Motor Company of Canada Ltd.		
Niagara glass plant	Niagara Falls, Ontario	Automotive glass
Essex engine plant	Windsor, Ontario	V6 engines
Ensite engine plant #1	Windsor, Ontario	V8 engines
Ensite engine plant #2	Windsor, Ontario	V8 engines and engine components
Foundry and casting plant	Windsor, Ontario	Iron castings
Essex aluminum plant	Windsor, Ontario	Aluminum castings
Ford Electronics. Manufacturing Corp.	Markham, Ontario	Radio and electronic components

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Location	Main Products
General Motors of Canada Ltd.		
Fabrication plant	Oshawa, Ontario	Stampings, batteries, radiators, instrument clusters, plastics, reaction injection moulding
Engine plant	St. Catharines, Ontario	V6 and V8 engines
Foundry	St. Catharines, Ontario	Metal castings (ferrous and non-ferrous)
Axle plant	St. Catharines, Ontario	Axles, disc brakes, spark plugs, front suspensions, transmission components
Engine plant	St. Catharines, Ontario	V6 engines
Trim plant	Windsor, Ontario	Trim sets, door covers
Transmission plant	Windsor, Ontario	Front-wheel-drive automatic transmissions
Foreign-owned Independent Manufacturers (larger facilities)		
AP Parts of Canada	Rexdale, Ontario	Mufflers, tail and exhaust pipes
Allied Signal Corp.	Chatham, Ontario London, Ontario Collingwood, Ontario Stratford, Ontario	Induction systems, engine cooling fans, electric drive cooling modules, cooling air blowers, egr valves, electronic vacuum regulators, sensors and actuators, secondary air valves, etc.
Budd Canada Inc.	Kitchener, Ontario Winnipeg, Manitoba	Frames, engine heaters
Certified Brakes	Rexdale, Ontario	Brake disc pads, brake linings, hydraulic parts

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Location	Main Products
Foreign-owned Independent Manufacturers (larger facilities)		
F&P Manufacturing	Tottenham, Ontario	Structural frame stampings
Fabricated Steel Products Ltd.	Windsor, Ontario	Stampings
Hayes-Dana Inc.	St. Catharines, Ontario Barrie, Ontario	Drive shafts, frames, axles
Kralinator Filters Division of Hayes-Dana	Cambridge, Ontario	Oil, fuel and air filters
Lear Siegler Industries Limited	Ajax, Ontario Whitby, Ontario Lindsay, Ontario	Automotive seating
Motor Wheel Corporation of Canada Ltd.	Chatham, Ontario	Wheels, rims and flanges
PPG Canada Inc.	Toronto, Ontario Mississauga, Ontario Whitby, Ontario	Glass for automobiles, adhesives, coatings, paint, phosphating compounds
Rockwell International of Canada Ltd.	Lacolle, Quebec Tilbury, Ontario Mississauga, Ontario Bracebridge, Ontario Milton, Ontario	Coil springs, brakes, mechanical stampings plastic components
Standard Tube Canada Ltd.	Woodstock, Ontario	Axle components
Standard Products Canada	Stratford, Ontario	Weather stripping, engine and body mounts
TRW Canada, Thompson Products Division	St. Catharines, Ontario	Steering components, valves, electro-mechanical devices

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Location	Main Products
	Foreign-owned Independent Manufacturers (larger facilities)	
Varity Corp.	Windsor, Ontario St. Catharines, Ontario	Wheels, brake parts
Varta Batteries Ltd.	Lachine, Quebec St. Thomas, Ontario Winnipeg, Manitoba	Batteries
Walker Exhausts	Cambridge, Ontario	Mufflers, tail and exhaust pipes
Waterville T.G. Inc.	Waterville, Quebec	Rubber products, padded auto instrument panels
	Canadian-owned Companies	
ABC Group of Companies	Rexdale, Ontario	Blow moulded automotive components
A.G. Simpson Co. Ltd.	Toronto, Ontario Windsor, Ontario	Stampings
Alcan Automotive Castings	St. Catharines, Ontario Montréal, Quebec Welland, Ontario Vancouver, B.C.	Aluminum cylinder heads, aluminum intake manifolds
Asbestonos	Montréal, Quebec	Brake and clutch products
Butler Metal Products Co. Ltd.	Cambridge, Ontario	Stampings
Canadian General Tower Ltd.	Cambridge, Ontario	Vinyl seat covers
Complax Corporation (The)	Windsor, Ontario	Compression and injection moulded components

Table 7.2 (continued)

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Location	Main Products
	Canadian-owned Companies	
Court Industries Limited	St. Catharines	Plating-zinc, copper, hard chrome, nickel, lead and phosphate, screw machine products, bonderizing, pressure tanks, transmission parts, gears, grinding and heat treating
Crila Plastic Industries Ltd.	Bolton, Ontario	Trim
Do-Ray Lamp Company (Canada)	Toronto, Ontario	Truck lighting and safety equipment
Dominion Automotive Industries	Toronto, Ontario	Protective lighting, mirrors, directional signals
Huron Steel Products	Windsor, Ontario	Stampings
Kendan Manufacturing Ltd.	Windsor, Ontario	Diesel engine components
Keystone A&A Industries	Richmond, B.C.	Wheels and wheel covers
Magna International Incorporated		
Atoma Division	Newmarket, Ontario	Seatings, interior trim
Cosma Division	Brampton, Ontario	Stampings, exterior parts
Decoma Division	Concord, Ontario	Plastic interior and exterior parts
Tesma Division	Concord, Ontario	Steel engine components
National Auto Radiator Manufacturing Co. Ltd.	Windsor, Ontario	Stampings
Stelco Inc. (parts manufacturing only)	Gananoque, Ontario Toronto, Ontario	Fasteners and forgings

A Partial List of Major Automotive Parts Plants in Canada

Company/Plant Name	Location	Main Products
	• **Canadian-owned Companies**	
Tamco Ltd.	Windsor, Ontario	Gear-shift levers, steering-column jackets
Tridon Ltd.	Burlington, Ontario Oakville, Ontario	Clamps, electronic flashers, wiper blades
Woodbridge Foam Corporation	Toronto, Ontario	Sets, other foam rubber components

Table 7.3

Asian Assembly Investment in Canada and the U.S.

Company	Location	Announced Capacity (000)	Date Open	Products
Canada				
Toyota	Cambridge, Ontario	50	1988	Cars
Honda	Alliston, Ontario	80	1986	Cars
Hyundai	Bromont, Quebec	100	1989	Cars
Suzuki	Ingersoll, Ontario	200	1989	Cars/Trucks (sport utility)
United States				
Toyota	Georgetown, Kentucky	200	1988	Cars
	Fremont, California	250	1984	Cars
	Fremont, California	100	1991	Trucks (light)
Nissan	Smyrna, Tennessee	240	1983	Cars/Trucks (light)
	Smyrna, Tennessee	200	1992	Cars
Honda	Marysville, Ohio	360	1982	Cars
	Liberty, Ohio	150	1991	Cars
Mistubishi	Bloomington-Normal, Illinois	240	1988	Cars
Mazda	Flatrock, Michigan	240	1987	Cars
Fuji/Isuzu	Lafayette, Indiana	220	1989	Cars/Trucks (light)

Table 7.4

Partial Listing* of Direct and Joint Ventures (as of June 1989)
Automotive Sector
Recent Offshore Investment in Canada

Company	Location	Products
Auto Parts (Asia)		
ABC/Nishikawa Industries	Rexdale, Ontario	Plastic parts
Bellmar Parts Ind. Canada	Alliston, Ontario	Automotive seating
Canadian Auto Parts Toyota Inc.	Delta, B.C.	Aluminum wheels
CoPar International	Oakville, Ontario	Automotive radiators cooling modules
Magna International/Daikyo Co. Ltd.	Markham, Ontario	Plastic trim
DDM Plastics	Markham, Ontario	Plastic injection moulded parts for bumpers and dashboards
Dualtech	Mississauga, Ontario	Auto relays
F&P Manufacturing	Tottenham, Ontario	Stamped parts
General Seating of Canada Ltd.	Woodstock, Ontario	Automotive seating
Lear Siegler Seating Corp./NHK Spring Co., Ltd.	Kitchener, Ontario	Seat frames
Nichirin Rubber Inc. Co. Ltd.	Brantford, Ontario	Hose and tube assemblies
NTN Bearing Mfg. Canada	Mississauga, Ontario	Bearings

Partial Listing of Direct and Joint Ventures (as of June 1989)
Automotive Sector
Recent Offshore Investment in Canada

Company	Location	Products
Auto Parts (Asia)		
Progressive Moulded Products Ltd.	Concord, Ontario	Cooling fans
Quality Safety Systems Co.	Tecumseh, Ontario	Seat belts
Rockwell International Suspension Systems	Milton, Ontario	Suspension systems
Yazaki Corp./VDO Instrument, Inc.	Barrie, Ontario	Meters
Vuteq Canada Corp.	Woodstock, Ontario	Auto glass
Waterville T.G. Inc.	Waterville, Quebec	Weather stripping
Woodbridge Inoac Inc.	Saint-Jérôme, Quebec	Instrument panels, interior trim
Yachiyo of Ontario Mfg. Ltd.	Barrie, Ontario	Plastic parts and fuel tanks

Partial Listing of Direct and Joint Ventures (as of June 1989)
Automotive Sector
Recent Offshore Investment In Canada

Company	Location	Products
Materials And Machine Tools (Asia)		
Aclo Compounders Inc.	Cambridge, Ontario	Plastic compound
Aida Canada Inc.	Mississauga, Ontario	Stamping presses
Amada Co. of Canada	Oakville, Ontario	Metal fabricating equipment
Canada Mold Technology	Woodstock, Ontario	Moulds for plastic injection moulded parts
Fujima International Inc.	Markham, Ontario	Stamping dies
Sansho Kogyo Co. Ltd.	London, Ontario	Welding/forging systems
Sunrise Automation Systems	Elmira, Ontario	Welding equipment
Taikisha Ltd.	Missisauga, Ontario	Paint finishing/design
Trutec Industries Canada Inc.	Mississauga, Ontario	Rust-proofing equipment

Table 7.4 (continued)

Partial Listing of Direct and Joint Ventures (as of June 1989)
Automotive Sector
Recent Offshore Investment In Canada

Company	Location	Products
Auto Parts (Europe)		
Bauerhin Heating Elements Inc.	Leamington, Ontario	In-seat heaters
Degussa Canada Ltd.	Burlington, Ontario	Automotive emission catalysts
Edscha of Canada	Niagara Falls, Ontario	Hinges/door fasteners
General Tire	Barrie, Ontario	Plant modernization and expansion (tires)
Joh Rubber Inc.	Leamington, Ontario	Engine cover rubber seals
Kautex of Canada Inc.	Windsor, Ontario	Blow moulded gas tanks
Kuester Control Cables Inc.	Niagara Falls, Ontario	Cables
Magna-Lemmerz	Collingwood, Ontario	Aluminum wheels
Michelin Tires (Canada) Ltd.	Bridgewater, Nova Scotia Granton, Nova Scotia Waterville, Nova Scotia	Plant modernization and expansion (tires)
Société industrielle et financière Montupet	Rivière-Beaudette, Quebec	Aluminum castings
Pebra Inc.	Peterborough, Ontario	Paint shop

Partial Listing of Direct and Joint Ventures (as of June 1989)
Automotive Sector
Recent Offshore Investment in Canada

Company	Location	Products
Auto Parts (Europe)		
Pebra Inc.	Kitchener, Ontario	Exterior trim
Ronal Canada Inc.	Stevensville, Ontario	Aluminum wheels
SWF Auto Electric	Mississauga, Ontario	Windshield wiper motors/switches
Varta Batteries Ltd.	Willowdale, Ontario	Batteries
Volkswagen Canada Inc.	Barrie, Ontario	Aluminum wheels, catalytic converters
Wegu Canada Inc.	Whitby, Ontario	Rubber mounts

* This listing includes joint ventures, direct investments and announced plans which may not yet have resulted in operational plants

Note: There are 126 joint ventures, 170 full (direct) and 6 undefined projects in auto parts and materials/machines for a total of 302 Japanese auto parts-related investments in the U.S.

Source: Compiled by Industry, Science and Technology Canada from various sector sources