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THE ALBERTA AND WESTERN CANADA EXPORT EXPERIENCE UNDER THE FREE TRADE AGREEMENTS, 1988-2005

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Western Canadian Export Performance

- The report summarizes the export performance of Western Canada and Alberta for 17 years of free trade with the U.S. and 12 years with Mexico, under the Canada-U.S. Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA). Attention is also given to each province (Alberta, British Columbia, Manitoba, and Saskatchewan) individually.
- Exports to NAFTA countries have risen to 80.9% of total Western Canadian exports, compared to 52.4% in 1988 and up from 79.7% in 2004.
- All Western provinces increased their exports to NAFTA countries in 2005 with Alberta increasing export values by 21% followed by 18% for Saskatchewan. For Western Canada as a whole the increase was 17.1%.

Focus on Alberta

- The value of Alberta's merchandise exports has risen by 509% since the benchmark year of 1988, the year before the inception of the Canada-U.S. FTA. Alberta's share of total Western Canadian exports has risen from 33.3% in 1988 to 57.5% in 2005.
- In 2005 the total value of Alberta's energy exports rose 25.5% in 2005 over 2004. This brings the total growth to 372% since the inception of the NAFTA in 1993. Energy continued to account for the highest share of Alberta's total exports to NAFTA countries, increasing to 79.1% in 2005 compared to 74.2% in 1993.
- Alberta's Chemical and Plastics sectors also grew rapidly. Since 1993 export values to NAFTA countries grew by 347%. The Machinery and Equipment sector has shown exceptional growth of 437% from 1993 to 2005. The strength of these two sectors points to strong growth for value-added products.
- Alberta's Forestry exports to NAFTA countries grew by an even more remarkable 471%.
- A breakdown of Alberta's exports into Primary and Non-Primary products shows export growth heavily concentrated in the Non-Primary product group. This points to successful value-added diversification of Alberta's economy.
- Alberta's Mining and End Products sector continued to benefit from record high commodity prices fuelled by global demand. Although export values have fluctuated for the sector, a recent rally resulted in a growth rate of 291% for NAFTA-destinations from 1993 to 2005.
- As for Agriculture, Alberta's exports of live cattle are beginning to recover after trade restrictions, due to the BSE crisis, have been largely lifted. In 2005, Alberta exports of live cattle to NAFTA countries reached \$273 million. This compares to \$637 million in 2002 before the crisis.

Focus on Other Provinces

- Wood and Wood Products remain British Columbia's top exports; whereas Energy has become Saskatchewan's and Manitoba's top export. Worth noting is greater diversification among Manitoba's exports compared to the other Western provinces.

Other Free Trade Agreement Partners

- Canada's free-trade agreements with Chile (1997), Israel (1997) and Costa Rica (2001) are also examined. Western Canada's exports to these countries were \$273 million in 2005, down \$41 million from 2001.

Introduction

This report reviews and analyzes Western Canadian merchandise export activity for the years 1988 through 2005. The text, tables, and figures in this report refer only to merchandise exports. The exports are valued in Canadian dollars and are classified according to the Harmonized System (HS) Codes and are compiled from Statistics Canada Trade Data.

The report follows merchandise export activity of the Western Canadian provinces beginning with the year preceding Canada signing its first free trade agreement with the United States. Section one highlights the value of the Western provinces' exports and the significance of the NAFTA trading partners to Western Canadian Exports. Section two further examines the total merchandise exports and top export categories of Western Canada – British Columbia, Alberta, Saskatchewan, and Manitoba. The third section highlights Western Canada's export relationships with the U.S. and Mexico from 1993 to 2005. Section four provides a detailed examination of Alberta's merchandise exports to NAFTA partners by sector from 1993 to 2005. In addition this section gives a detailed analysis of Alberta's value added and primary exports over the past ten years by sector. These exports are examined at the four-digit HS level to illustrate current and emerging trends. Section five provides a ten year review of export activity from Western Canadian provinces to Chile, Israel and Costa Rica.

As Western Canada's largest trading partner, special emphasis is given to the United States to better understand the region's export distribution and emerging trends. Currently two key market forces are affecting exports in Western Canada. One is the record high prices of oil and natural gas as well as other commodity based exports creating exceptional market opportunity for Western Canada. The second is the effect of the increasing value of the Canadian dollar on manufacturing and other value-added exports. In addition to current market forces, resolutions of both the softwood lumber dispute and the import ban on live cattle to the U.S. will play a significant role in export growth in the medium-term.

Overall free trade is shown to have been beneficial in promoting export growth and increasing economic activity. However it is important to note that future export growth is dependent on maintaining open borders and limiting artificial trade restrictions.

1. Western Canada's Aggregate Export Values, 1988-2005

This section reviews Western Canada's total exports to all of its trading partners since 1988 and compares it to total export growth to NAFTA countries. Although the NAFTA was implemented in 1994, the charts and tables in this section extend back to 1988, the year prior to the implementation of the Canada-U.S. FTA. Consequently, Mexico is included as a free-trade partner before it became one. Though this is not entirely accurate it does not fundamentally distort the data, given the much greater significance of the U.S. than the Mexican export market to Western Canada (see Figure 3.1), and it does allow for a consistent historical perspective.

It is important to note two key points in Western Canada's export values. First is the increasing importance of the United States as a trading partner. Second is the role of oil and gas in export growth since 2000. Free trade in North America and developments in the energy markets have thus stimulated significant growth in Western Canada's economy, though the increasing proportion of exports going to the key partner provides the challenge of greater dependency on both a single trading partner and energy exports.

1.1 Dollar Value of Merchandise Exports to All Trading Partners

Table 1.1 and Figure 1.1 present Western Canada's and the individual Western provinces' total export values to all trading partners (including NAFTA partners) for the years 1988 through 2005.

Overall export growth to world trading partners has increased dramatically since 1988. Comparing 2005 values to 1988 values, Western Canada's total exports increased by 253%. At 509%, Alberta's total export growth was the greatest of the Western provinces. As a result, Alberta's share of total Western Canadian exports rose from 33% to 58% during that time.

From 1988 to 2000, total exports rose in each Western province. This was due in large part to favorable exchange rates and economic growth fueled by the technology and telecommunications sectors and culminated in 2000 with substantial increases for all provinces. However, the global economic slowdown from 2000 to 2004 resulted in limited growth for most provinces. The exception was Alberta, which experienced erratic movements in export values but still posted a 21.1% gain in that period, from \$55.9 billion to \$67.7 billion. Much of this growth can be explained by the effects of 9/11 and the beginning of the Iraq war, which created an increased uncertainty in global energy markets and drove prices to record highs. Since that time all of the Western provinces have seen oil and gas become a greater contributor to export values with prices remaining at near highs despite high inventories in the United States.

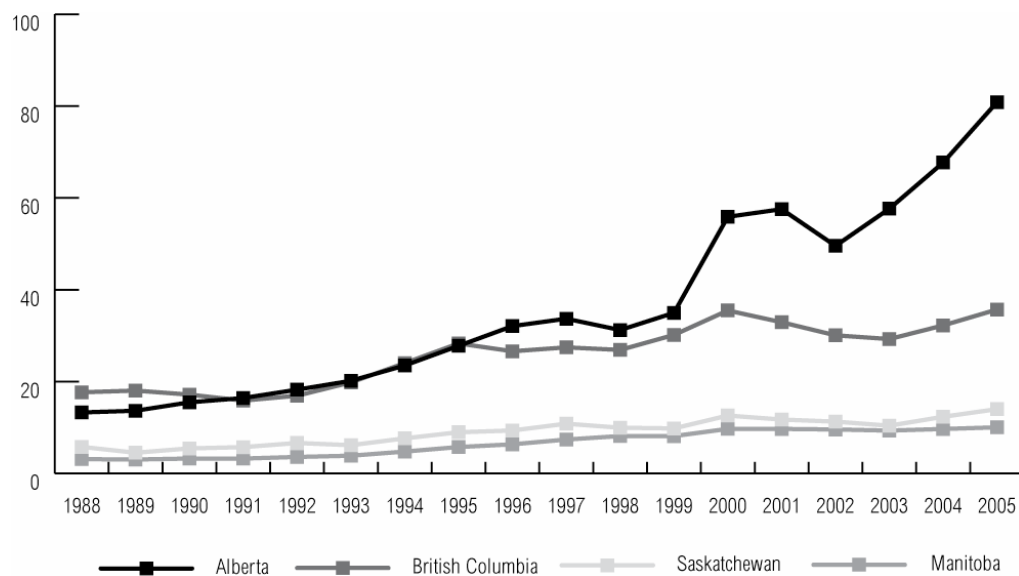
Although energy exports have provided the greatest gains in Western Canada, the growth of the Asian economies is creating substantial demand for raw materials. This has resulted in strong prices for base metals, agriculture and forest products. As a result, 2005 is the second year in a row of export growth for all the Western

provinces. The year-over-year gains were led by Alberta which posted an increase of \$13.15 billion or 19% over 2004, followed by British Columbia gaining \$3.46 billion or 11%, Saskatchewan gaining \$1.66 billion or 13%, and Manitoba gaining \$360 million or 4%. Overall, Western Canada reached its highest ever export values in 2005 reaching \$140.56 billion, a gain of \$18.62 billion or 15.3% over 2004.

Table 1.1: Western Canada: Value of Exports by Province, 1988-2005 (\$billions)

Year	Alberta	British Columbia	Saskatchewan	Manitoba	Western Canada
1988	13.28	17.67	5.78	3.11	39.84
1989	13.65	18.04	4.51	3.03	39.23
1990	15.48	17.16	5.45	3.24	41.33
1991	16.42	15.86	5.73	3.24	41.25
1992	18.24	16.93	6.63	3.59	45.39
1993	20.17	19.82	6.15	3.86	50
1994	23.51	24.02	7.64	4.76	59.93
1995	27.78	28.30	8.97	5.75	70.80
1996	32.08	26.60	9.35	6.34	74.37
1997	33.69	27.45	10.83	7.38	79.34
1998	31.22	26.89	9.95	8.14	76.19
1999	34.97	30.16	9.80	8.13	83.05
2000	55.88	35.48	12.60	9.70	113.67
2001	57.54	32.92	11.73	9.69	111.88
2002	49.55	30.07	11.28	9.57	100.47
2003	57.64	29.26	10.39	9.33	106.62
2004	67.69	32.23	12.34	9.68	121.94
2005	80.84	35.69	14.00	10.04	140.56
% Change 1988 - 2005	509%	102%	142%	223%	253%

Figure 1.1: Western Canada: Value of Exports by Province, 1988-2004 (\$billions)



1.2 Exports to NAFTA Partners

Table 1.2 highlights the increasing ascendancy of NAFTA countries as Western Canadian export destinations. From 1988 to 2005, NAFTA exports, as a proportion of total Western Canadian exports increased dramatically. This is true for Western Canada as a whole as well as each Western province. Of the \$140 billion in Western Canada's total exports in 2005, 80.9% went to NAFTA countries, compared to 52.4% of the \$40 billion in 1988. As of 2005, Alberta, at 90.3%, had the highest proportion of its total exports going to NAFTA countries, and British Columbia had the lowest at 64.9%. Figure 1.2 illustrates this development.

The recent increase in exports was driven by record high commodity prices and increased demand for oil and natural gas due to Hurricane Katrina and political instability throughout the world. Overall, we saw Alberta's proportion grow from 89.0% to 90.3% from 2004 to 2005. British Columbia's proportion declined from 65.3% to 64.9%. Saskatchewan's proportion increased from 67.3% to 70.0%. Manitoba followed a similar trend, reaching 78.1% in 2005, up from 77.7% in 2004.

Table 1.2: Proportion of Total Exports to NAFTA Partners by Western Province, in 5-Year Increments, annually after 2003

Year	Alberta	British Columbia	Saskatchewan	Manitoba	Western Canada
1988	70.0%	43.4%	35.1%	61.1%	52.4%
1993	81.7%	54.3%	57.2%	71.0%	67.0%
1998	82.4%	63.7%	57.2%	77.0%	72.0%
2003	90.1%	67.1%	65.7%	78.3%	80.3%
2004	89.0%	65.3%	67.3%	77.7%	79.7%
2005	90.3%	64.9%	70.0%	78.1%	80.9%

Figure 1.2: Distribution of Total Exports by Western Province, 2005 (%)

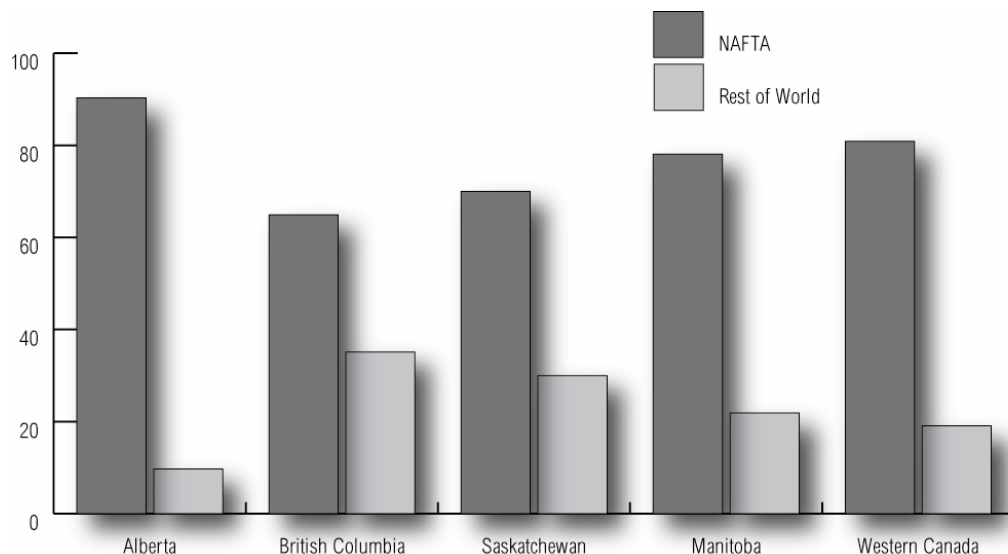


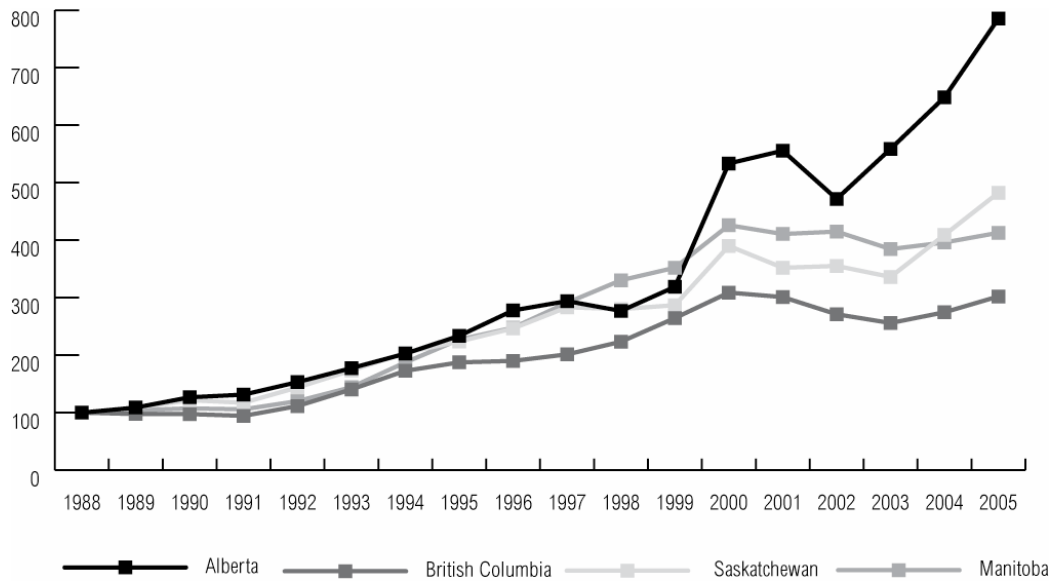
Table 1.3 presents Western Canada's NAFTA export values for the years 1988 through 2005. Given that the vast majority of Western Canadian exports are destined to the United States, the trends in export values and reasoning are similar to those in Table 1.1. For each Western province, exports to NAFTA countries increased substantially from 1988 to 2000 and, except for Alberta, leveled off from 2000 to 2003 with 2004 and 2005 showing significant gains for all provinces. From 2004 to 2005, NAFTA export values increased 17.1%, 21.1%, 10.0%, 18.0% and 4.3% for Western Canada, Alberta, British Columbia, Saskatchewan, and Manitoba respectively.

Table 1.3: NAFTA Export Values by Western Province, 1988-2005 (\$billions)

Year	Alberta	British Columbia	Saskatchewan	Manitoba	Western Canada
1988	9.29	7.67	2.03	1.90	20.89
1989	10.11	7.49	2.20	1.98	21.78
1990	11.77	7.48	2.47	2.04	23.76
1991	12.20	7.24	2.38	2.01	23.83
1992	14.22	8.55	2.92	2.28	27.97
1993	16.48	10.77	3.52	2.74	33.51
1994	18.82	13.25	4.14	3.56	39.77
1995	21.71	14.38	4.54	4.31	44.94
1996	25.81	14.58	5.01	4.71	50.10
1997	27.32	15.44	5.75	5.53	54.04
1998	25.72	17.13	5.69	6.27	54.82
1999	29.62	20.29	5.82	6.69	62.41
2000	49.55	23.69	7.92	8.09	89.25
2001	51.61	23.09	7.15	7.80	89.65
2002	43.82	20.79	7.21	7.88	79.71
2003	51.91	19.63	6.82	7.31	85.66
2004	60.24	21.06	8.30	7.52	97.13
2005	72.96	23.17	9.79	7.84	113.77

To better illustrate how Western provinces' export values to NAFTA partners have increased since 1988, they are compared to a base year (1988=100) to track proportional movement (Figure 1.3). Alberta's 2005 value for exports to NAFTA countries is 785% of its 1988 value, while British Columbia's, Saskatchewan's, and Manitoba's 2005 values for exports to NAFTA countries are 302%, 482%, and 413% of their respective 1988 values. In 2005, \$114 billion in exports went to NAFTA countries from Western Canada.

Figure 1.3: Index of NAFTA Export Values by Western Province (1988=100), 1988-2005



1.3 Non-NAFTA Exports

In 2005 exports to non-NAFTA partners made up 19% of Western Canada's total exports. Those exports were led by Mineral Fuels (HS 27), Cereals (HS 10) and Wood Pulp (HS 47). British Columbia has remained the leading exporter to non-NAFTA countries. However, from 1988 to 2005, exports from Alberta and Manitoba to non-NAFTA countries posted the greatest increase with export values growing by 97% and 81%, respectively. Exports to non-NAFTA countries from British Columbia and Saskatchewan changed less overall since 1988, growing by 25% and 12% respectively.

From 2004 to 2005, however, non-NAFTA exports increased 7.9%, 5.5%, 12.0%, 4.0% and 1.4% for Western Canada, Alberta, British Columbia, Saskatchewan, and Manitoba respectively. Only in British Columbia did non-NAFTA export growth outpace NAFTA export growth for 2005 with strong exports coming from Mineral Fuels (HS 27), Wood (HS 44) and Wood Pulp (HS 47).

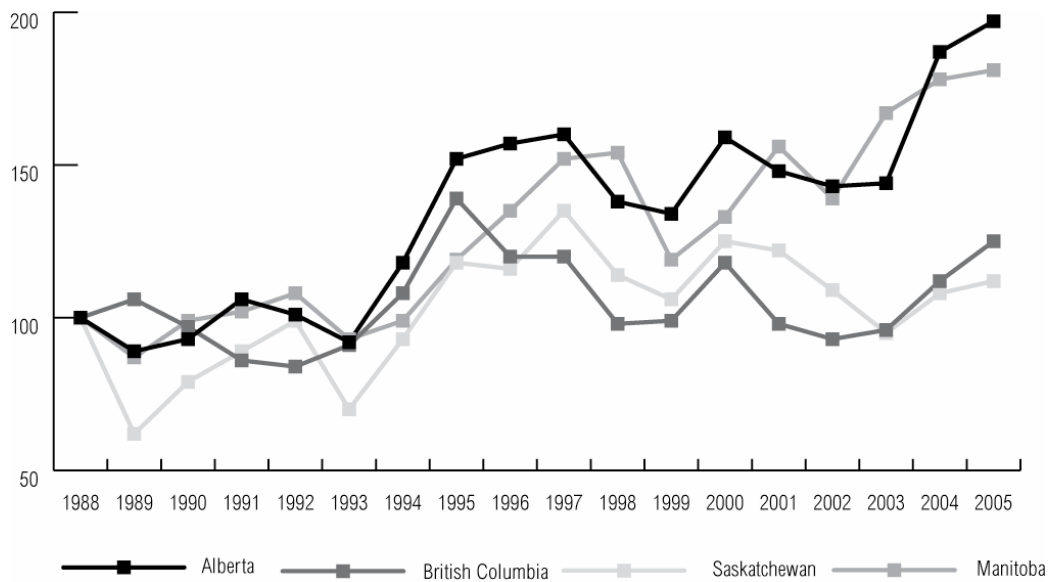
Table 1.4: Non-NAFTA Export Values by Western Province, 1988-2004 (\$billions)

Year	Alberta	British Columbia	Saskatchewan	Manitoba	Western Canada
1988	3.99	10.00	3.75	1.21	18.95
1989	3.54	10.55	2.31	1.05	17.45
1990	3.71	9.68	2.98	1.20	17.57
1991	4.22	8.62	3.35	1.23	17.42
1992	4.02	8.38	3.71	1.31	17.42
1993	3.69	9.05	2.63	1.12	16.49
1994	4.69	10.77	3.50	1.20	20.16
1995	6.07	13.93	4.42	1.44	25.86
1996	6.27	12.02	4.34	1.63	24.27
1997	6.37	12.00	5.08	1.84	25.30
1998	5.49	9.76	4.26	1.86	21.38
1999	5.35	9.87	3.97	1.44	20.64
2000	6.33	11.80	4.69	1.61	24.43
2001	5.92	9.83	4.59	1.89	22.23
2002	5.72	9.27	4.07	1.68	20.76
2003	5.73	9.63	3.57	2.02	20.95
2004	7.45	11.17	4.04	2.16	24.81
2005	7.87	12.51	4.20	2.19	26.78

Again, to better illustrate how export values to non-NAFTA partners have increased since 1988, export values are compared to a base year (1988=100) to track proportional movement.

Alberta's 2005 value for exports to non-NAFTA countries is 197% of its 1988 value while British Columbia's, Saskatchewan's, and Manitoba's 2005 values for exports to non-NAFTA countries are 125%, 112%, and 181% of their respective 1988 values. In 2005, \$27 billion in exports went to non-NAFTA countries from Western Canada, 141% of the level in 1988.

Figure 1.4: Index of Non-NAFTA Export Values by Western Province (1988=100), 1988-2005



2. Western Canada's Top 20 Export Categories and Their Contribution to Export Growth

Identifying the top 20 exports for Western Canada and its provinces provides insight into how their economies are structured, where the greatest gains are being realized, and what are the market trends. Tables 2.1 to 2.5 show the top 20 export categories for Western Canada, Alberta, British Columbia, Saskatchewan, and Manitoba respectively. These tables compare 2005 values with 1993 values, 1993 being the year prior to the implementation of the NAFTA, and highlight the respective NAFTA-shares of aggregate exports.

2.1 Western Canada: Top 20 Exports

Energy, forestry, and machinery continue to be Western Canada's top exports. However a key change over 2004 is plastics surpassing cereals as one of Western Canada's top exports. It is unclear whether this is a temporary fluctuation or a permanent shift in export rankings. The top five export categories of Western Canada for 2005 – Mineral Fuel, Wood, Machinery, Wood Pulp, and Plastics – accounted for 71.4% of Western Canada's total exports in 2005. Mineral Fuels alone accounted for 51.0% of the total, up from 32.7% of total 1993 exports. Mineral Fuels exports grew by 340% from 1993 to 2004 and accounted for 61.5% of Western Canada's total export growth over that period.

Table 2.1: Western Canada: Top Twenty Export Categories of 2005, Total Exports (\$millions)

HS	Product Description	1993		2005		Export Growth (%) 1993 - 2005	Contribution to Total Export Growth (%) 1993 - 2005	% NAFTA Share	
		Export Value	% of Total	Export Value	% of Total			1993	2005
27	Mineral Fuels, Oil etc.	16,355	32.7	71,959	51.2	340.0	61.5	89	97
44	Wood	8,186	16.3	11,657	8.3	42.4	3.8	62	83
84	Machinery	1,631	3.3	5,198	3.7	218.8	3.9	69	66
47	Wood Pulp, Etc.	2,913	5.8	4,098	2.9	40.7	1.3	34	47
39	Plastic	668	1.3	4,025	2.9	502.9	3.7	81	91
31	Fertilizers	1,411	2.8	3,411	2.4	141.8	2.2	73	67
10	Cereals	3,405	6.8	3,206	2.3	-5.8	-0.2	17	14
85	Electrical Machinery	819	1.6	2,864	2.0	249.9	2.3	73	35
29	Organic Chemicals	910	1.8	2,638	1.9	189.8	1.9	50	52
48	Paper & Paperboard	1,904	3.8	2,627	1.9	38.0	0.8	64	80
02	Meat	610	1.2	2,607	1.9	327.5	2.2	81	68
12	Misc. Grains, Seeds, Fruit	1,096	2.2	1,900	1.4	73.4	0.9	20	35
26	Ores; Slag; Ash	666	1.3	1,676	1.2	151.7	0.7	53	16
87	Vehicles, Not Railway	759	1.5	1,611	1.2	112.2	0.9	73	87
28	Inorganic Chemicals	494	1.0	1,384	1.0	180.2	1.0	84	73
99	Miscellaneous	1,218	2.4	1,294	0.9	6.3	0.1	96	97
73	Articles of Iron or Steel	283	0.6	1,272	0.9	349.9	1.1	85	90
94	Furniture and Bedding	247	0.5	1,173	0.8	374.8	1.0	79	86
07	Vegetables	280	0.6	1,166	0.8	316.5	1.0	19	50
01	Live Animals	1,114	2.2	1,145	0.8	2.8	0.0	99	97
Total Top 20		\$44,969	89.8	\$126,912	90.3	167.6	87.9	50	62
Total Western Canada		\$50,008	100.0	\$140,557	100	181.1	100.0	67	81

2.2 Alberta: Top 20 Exports

Energy exports (Mineral Fuels), which include Oil, Natural Gas, and Coal, continue to make up the majority of Alberta's total exports. Alberta's total exports increased by 281% between 1993 and 2005 and 74.3% of this can be attributed to energy export growth. Alberta's energy exports accounted for 71.7% of Alberta's total exports in 2005, up from 63.9% of total Alberta exports in 1993. Almost all (i.e., 99.6%) of the 2005 energy exports went to NAFTA countries. As well, a number of other Alberta exports, including Plastics and Wood, were for the most part purchased by NAFTA countries (90.8% and 96.6%, respectively).

Energy exports as a percentage of total Alberta exports rose from 68.6% in 2004 to 71.7% in 2005. The value of energy exports increased by 25.5% in that time, from \$46.2 billion to \$57.98 billion. Alberta's total exports increased from \$67.7 billion in 2004 to \$80.8 billion in 2005.

Plastics, Organic Chemicals, Machinery, Meat, Wood, Electrical Machinery, and Wood Pulp are Alberta's top seven non-energy export categories, with exports of over \$14 billion in 2005. Exports of each of these categories increased markedly from 1993 to 2005, although together they only accounted for 17.4% of Alberta's total exports in 2005. The export of Cereals in 2005, Alberta's number nine export category, has changed little from 1993 but Cereal exports are cyclical and were as high as \$1.6 billion in 1996.

Table 2.2: Alberta: Top Twenty Export Categories of 2005, Total Exports (\$millions)

HS	Product Description	1993		2005		Export Growth (%) 1993 - 2005	Contribution to Total Export Growth (%) 1993 - 2005	% NAFTA Share	
		Export Value	% of Total	Export Value	% of Total			1993	2005
27	Mineral Fuels, Oil Etc.	12,891	63.9	57,980	71.7	349.8	74.3	95	100
39	Plastic	524	2.6	3,095	3.8	490.4	4.2	80	91
29	Organic Chemicals	721	3.6	2,479	3.1	243.8	2.9	54	55
84	Machinery	482	2.4	2,326	2.9	382.9	3.0	35	58
02	Meat	444	2.2	1,963	2.4	342.3	2.5	82	77
44	Wood	315	1.6	1,602	2.0	408.1	2.1	80	97
85	Electrical Machinery	373	1.8	1,366	1.7	266.6	1.6	71	68
47	Wood Pulp, etc.	413	2.0	1,213	1.5	193.7	1.3	31	49
10	Cereals	885	4.4	944	1.2	6.7	0.1	17	5
99	Miscellaneous	488	2.4	599	0.7	22.8	0.2	92	97
90	Precision Instruments	137	0.7	596	0.7	335.5	0.8	39	55
75	Nickel and Products	57	0.3	581	0.7	922.5	0.9	16	0
12	Misc. Grains, Seeds, Fruit	336	1.7	575	0.7	71.2	0.4	20	33
73	Articles of Iron or Steel	78	0.4	494	0.6	537.4	0.7	59	86
31	Fertilizers	219	1.1	485	0.6	121.6	0.4	93	99
25	Salt/Sulfur/Earth/Stone	172	0.9	473	0.6	175.8	0.5	45	16
28	Inorganic Chemicals	136	0.7	463	0.6	239.6	0.5	83	91
01	Live Animals	552	2.8	372	0.5	-32.5	-0.3	100	96
87	Vehicles, Not Railway	76	0.4	334	0.4	342.3	0.4	45	76
94	Furniture and Bedding	78	0.4	329	0.4	323.3	0.4	81	93
Total Top 20		\$19,375	96	\$78,270	97	304	97	81	90
Total Alberta		\$20,168	100.0	\$80,835	100	281	100	82	90

2.3 British Columbia: Top 20 Exports

British Columbia's exports are less concentrated than Alberta's, with a stronger focus on the forestry sector. They continue to be led by Wood, Mineral Fuels, Wood Pulp, and Paper and Paperboard (Table 2.3). The top four export categories of 2005, accounted for 60.3% of British Columbia's total exports in 2005, as compared to 68.4% of total exports in 1993. Of these four categories, only energy exports increased notably from 1993 to 2005, up 321.9%. Energy exports accounted for 21.8% of British Columbia's total exports in 2005, up from 9.3% of the province's total exports in 1993.

Of British Columbia's top four export categories, only Wood Pulp is sent in majority to countries outside of the NAFTA. 72% of Wood Pulp exports were sent to non-NAFTA countries in 2005, up from 66% in 1993. In comparison, 64% of energy exports went to NAFTA countries in 2005, up from 37% in 1993. Nonetheless, British Columbia continues to export the greatest proportion and amount of exports to non-NAFTA partners.

Table 2.3: British Columbia: Top Twenty Export Categories of 2005, Total Exports (\$millions)

HS	Product Description	1993		2005		Export Growth (%) 1993 - 2005	Contribution to Total Export Growth (%) 1993 - 2005	% NAFTA Share	
		Export Value	% of Total	Export Value	% of Total			1993	2005
44	Wood	7,676	38.6	9,163	25.7	19.4	9.4	61	79
27	Mineral Fuels, Oil Etc.	1,845	9.3	7,783	21.8	321.9	37.6	37	64
47	Wood Pulp, Etc.	2,354	11.8	2,625	7.4	11.5	1.7	34	28
48	Paper & Paperboard	1,732	8.7	1,963	5.5	13.3	1.5	61	75
84	Machinery	756	3.8	1,666	4.7	120.3	5.8	80	66
26	Ores; Slag; Ash	658	3.3	1,660	4.7	152.1	6.3	5	16
85	Electrical Machinery	300	1.5	1,127	3.2	275.8	5.2	70	65
03	Fish and Seafood	708	3.6	969	2.7	36.8	1.6	42	54
76	Aluminum and Products	435	2.2	784	2.2	80.3	2.2	12	28
39	Plastic	77	0.4	565	1.6	637.8	3.1	82	92
94	Furniture and Bedding	98	0.5	513	1.4	426.5	2.6	65	74
73	Articles of Iron or Steel	148	0.7	465	1.3	213.6	2.0	93	92
99	Miscellaneous	482	2.4	453	1.3	-5.9	-0.2	99	96
90	Precision Instruments	127	0.6	450	1.3	253.4	2.0	74	67
87	Vehicles, Not Railway	316	1.6	416	1.2	31.7	0.6	51	79
28	Inorganic Chemicals	105	0.5	370	1.0	252.5	1.7	61	68
79	Zinc and Products	211	1.1	317	0.9	50.1	0.7	67	70
72	Iron and Steel	99	0.5	306	0.9	207.5	1.3	88	80
07	Vegetables	44	0.2	301	0.8	575.7	1.6	54	87
15	Fats and Oils	46	0.3	271	0.8	488.7	1.4	10	1
Total Top 20		\$18,217	91.6	\$32,166	90	77	88	52	64
Total British Columbia		\$19,891	100	\$35,687	100	92	100	54	65

2.4 Saskatchewan: Top 20 Exports

Since the NAFTA's inception, Saskatchewan's leading exports have changed substantially (Table 2.4). Traditionally known as the breadbasket of Canada, Cereals have been Saskatchewan main exports to the world. However in the late 1990's Cereals were surpassed by Fertilizers as Saskatchewan's top export. Not long after, Mineral Fuels became Saskatchewan's leading export and it so remains today. Mineral Fuels accounted for 20% of the value of the Top 20 Exports in 1993; by 2005 their relative importance was 35.4%. By contrast, Cereals decreased from 31.6% in 1993 to 11.2% in 2005. Overall, from 1993 to 2005, Energy exports increased by 307.2% and accounted for 47.7% of Saskatchewan's total export growth.

As with Alberta and Manitoba, Saskatchewan exports Mineral Fuels exclusively to NAFTA countries; while Cereals, Vegetables, and Miscellaneous Grains, Seeds, and Fruits, go mainly to non-NAFTA countries.

Table 2.4: Saskatchewan: Top Twenty Export Categories of 2005, Total Exports (\$millions)

HS	Product Description	1993		2005		Export Growth (%) 1993 - 2005	Contribution to Total Export Growth (%) 1993 - 2005	% NAFTA Share	
		Export Value	% of Total	Export Value	% of Total			1993	2005
27	Mineral Fuels, Oil etc.	1,218	19.8	4,961	35.4	307.2	47.7	100	100
31	Fertilizers	1,144	18.6	2,768	19.8	142.1	20.7	68	61
10	Cereals	1,900	30.9	1,570	11.2	-17.4	-4.2	16	15
12	Misc. Grains, Seeds, Fruit	416	6.8	731	5.2	75.6	4.0	16	34
07	Vegetables	135	2.2	644	4.6	377.3	6.5	4	5
84	Machinery	108	1.8	453	3.2	319.3	4.4	83	81
44	Wood	74	1.2	444	3.2	496.5	4.7	98	99
28	Inorganic Chemicals	193	3.1	433	3.1	124.3	3.1	100	51
47	Wood Pulp	146	2.4	254	1.8	74.7	1.4	48	36
01	Live Animals	269	4.5	208	1.5	-22.6	-0.8	99	99
15	Fats and Oils	14	0.2	198	1.4	1327.9	2.4	97	84
48	Paper/Paperboard	52	0.9	183	1.3	249.0	1.7	99	100
73	Iron/Steel Products	39	0.6	172	1.2	344.0	1.7	99	99
85	Electrical Machinery	38	0.6	155	1.1	314.2	1.5	63	62
11	Milling, Malt, Starch	37	0.6	130	0.9	253.6	1.2	12	73
99	Miscellaneous	81	1.3	121	0.9	49.1	0.5	100	99
02	Meat	72	1.2	113	0.8	57.9	0.5	93	58
87	Vehicles, Not Railway	22	0.4	89	0.6	311.4	0.9	88	97
72	Iron and Steel	54	0.9	63	0.5	17.2	0.1	100	98
39	Plastic	9.6	0.2	50	0.4	420.3	0.5	41	93
Total Top 20		\$6,020	98	\$13,742	98	128	98	64	69
Total Saskatchewan		\$6,155	100.0	\$13,997	100	108	100	57	70

2.5 Manitoba: Top 20 Exports

For Manitoba the export values are more evenly distributed over the top twenty products than is the case for the other Western provinces. The top five export categories: Mineral Fuels, Vehicles, Machinery, Cereals, and Miscellaneous Grains, Seeds, and Fruit accounted for 39.5 % of total exports in 2005 (down from 50% in 1993). The next five export categories (Live Animals, Nickel and Products, Meat, Wood and Furniture and Bedding) accounted for 22.3% of total 2005 exports. In comparison, for Alberta the top five export categories for 2005 accounted for 83.9% of total exports, and the next five accounted for only 7.1%. Therefore, many of Manitoba's Top 20 export categories contributed significantly to total exports in 2005, and many contributed to total export growth from 1993 to 2005.

Although Manitoba is well positioned as a diversified exporter, most of its exports are destined to NAFTA partners. This ties the Manitoba economy closely to the U.S. economy, and with its emphasis on energy, manufactured goods and agriculture, Manitoba is likely to follow the U.S. business cycle. Manitoba's non-NAFTA exports consist primarily of commodities like cereals and nickel and nickel products.

Table 2.5: Manitoba: Top Twenty Export Categories of 2004, Total Exports (\$millions)

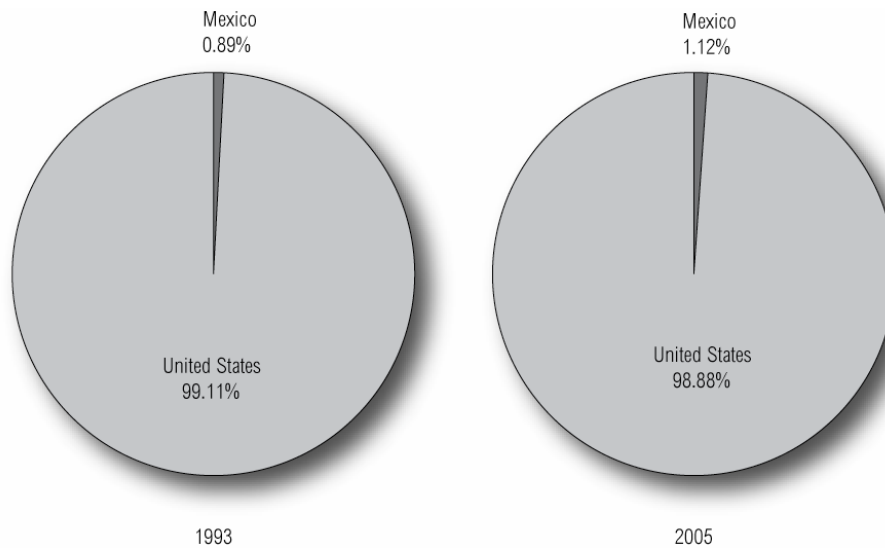
HS	Product Description	1993		2005		Export Growth (%) 1993 - 2005	Contribution to Total Export Growth (%) 1993 - 2005	% NAFTA Share	
		Export Value	% of Total	Export Value	% of Total			1993	2005
27	Mineral Fuels, Oil Etc.	401	10.4	1,235	12.3	207.8	13.5	100	100
87	Vehicles, Not Railway	346	9.0	771	7.7	122.9	6.9	99	95
84	Machinery	284	7.4	752	7.5	164.7	7.6	92	79
10	Cereals	596	15.4	653	6.5	9.7	0.9	17	26
12	Misc. Grains, Seeds, Fruit	300	7.8	554	5.5	84.5	4.1	28	40
01	Live Animals	234	6.1	547	5.5	133.9	5.1	100	100
75	Nickel and Products	165	4.3	465	4.6	182.4	4.9	18	18
02	Meat	71	1.8	465	4.6	553.4	6.4	65	41
44	Wood	120	3.1	449	4.5	273.3	5.3	99	99
94	Furniture and Bedding	71	1.8	315	3.1	345.0	4.0	96	97
39	Plastic	57	1.5	314	3.1	450.7	4.2	96	93
74	Copper and Products	5	0.1	307	3.1	6495.7	4.9	97	100
48	Paper/Paperboard	89	2.3	280	2.8	213.8	3.1	89	94
88	Aircraft, Spacecraft	130	3.4	266	2.7	105.0	2.2	93	76
20	Preserved Food	8	0.2	260	2.6	3105.9	4.1	98	94
85	Electrical Machinery	108	2.8	215	2.2	98.6	1.7	92	88
49	Book Manuscript	21	0.5	178	1.8	738.4	2.5	78	86
98	Special Classification Provisions	n/a	n/a	169	1.7	n/a	n/a	n/a	74
30	Pharmaceutical Products	1	0.0	156	1.6	13916.9	2.5	4	82
07	Vegetables	73	1.9	143	1.4	96.0	1.1	17	1
Total Top 20		\$3,081	80	\$8,495	84.7	175.7	85	70	78
Total Manitoba		\$3,864	100	\$10,038	100	173.5	100	71	78

3. Exports to the United States and Mexico

This section examines the distribution and growth of exports originating in Western Canada and destined to the United States and Mexico. Base years to track export activity are the year prior to entering their respective free trade agreement with Canada.

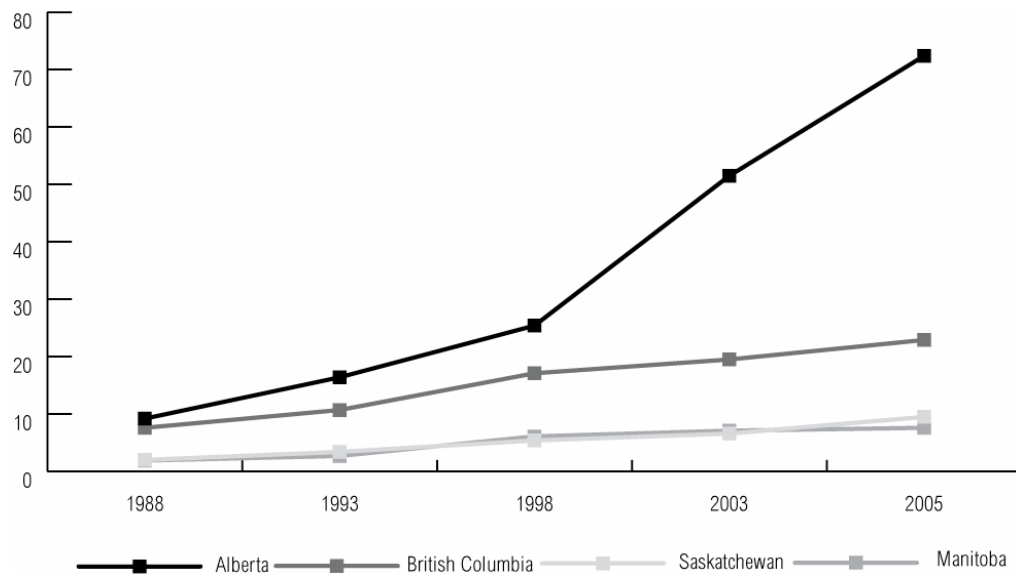
Figure 3.1 illustrates the export distribution from Western Canada to the U.S. and Mexico for 1993 and 2005. Although Canada and the U.S. entered into the first free trade agreement in 1989, the inclusion of Mexico under NAFTA in 1994 means 1993 provides a better base year for comparison. What is most apparent is the prominence of the U.S. versus Mexico as a trading partner, although Mexico's share of Western Canadian exports relative to the United States increased (by 25.8%) over the period.

Figure 3.1: Export Distribution from Western Canada to NAFTA Partners: 1993, 2005



The United States has continued to be Western Canada's largest trading partner and its relative importance as an export destination has grown since 1993. Using 1988, the year prior to the Canada-U.S. Free Trade Agreement, we can note positive growth for all provinces and an increasing proportion of exports destined for the United States. Figure 3.2 illustrates the export values from Western Canadian provinces from 1988 to 2005. Of note is that exports to the U.S. from British Columbia, Saskatchewan, and Manitoba increased steadily, while exports increased significantly for Alberta. The majority of this growth is explained by increases in Mineral Fuels exports for all provinces.

Figure 3.2: Western Canada: Exports to the U.S. by Province 1988-2003, in five year increments, annually thereafter (\$billions)



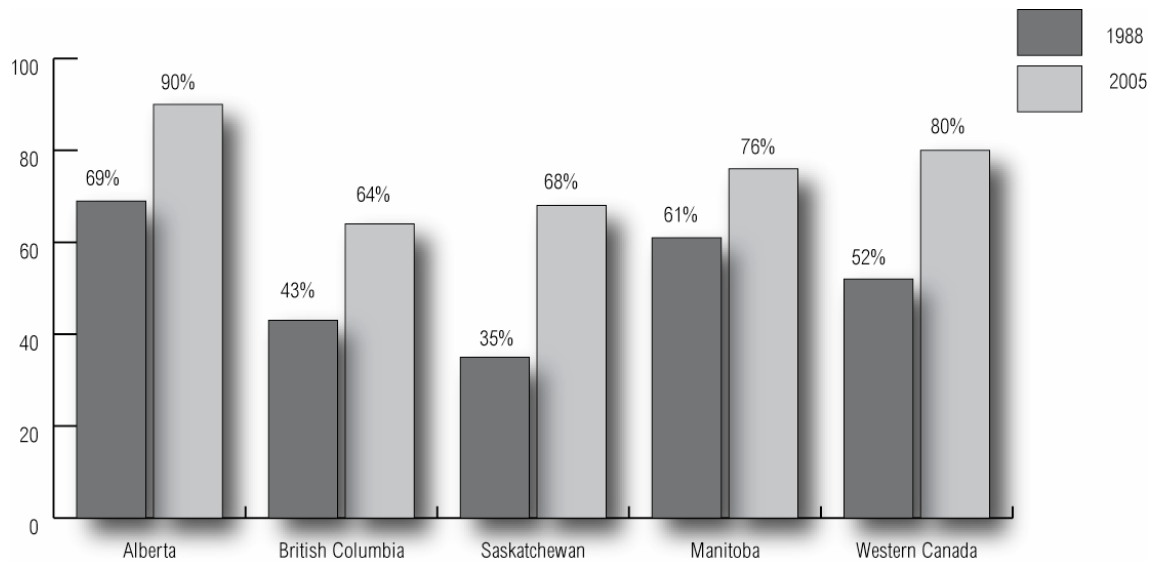
Exports to the U.S. by each province are illustrated in Table 3.1 along with percentages for U.S. shares of total Western Canadian exports. Western Canada's exports to the U.S. increased 443% from 1988 to 2005, up from \$20.7 billion to \$112.5 billion. Of the Western provinces, over this same time period, Alberta's exports to the U.S. increased the most, by 687% (to \$72.4 billion from \$9.2 billion), while British Columbia's exports to the U.S. showed the lowest percentage increase, 202%.

Table 3.1 Western Canada: Exports to the U.S. by Province (\$billions), U.S. Share of Total Exports by Province

Province	Exports to the U.S.					Export Growth 1988 - 2005	U.S. Share of Total Exports					Growth in US Share 1988 - 2005
	1988	1993	1998	2003	2005		1988	1993	1998	2003	2005	
WEST	20.7	33.2	54.1	84.7	112.5	443%	52%	66%	71%	79%	80%	54.2%
Alberta	9.2	16.4	25.4	51.5	72.4	687%	69%	81%	81%	89%	90%	29.5%
British Columbia	7.6	10.7	17.1	19.5	22.9	202%	43%	54%	63%	67%	64%	48.8%
Saskatchewan	2	3.4	5.4	6.6	9.5	376%	35%	55%	54%	63%	68%	94.3%
Manitoba	1.9	2.7	6.1	7.1	7.6	301%	61%	69%	75%	76%	76%	24.6%

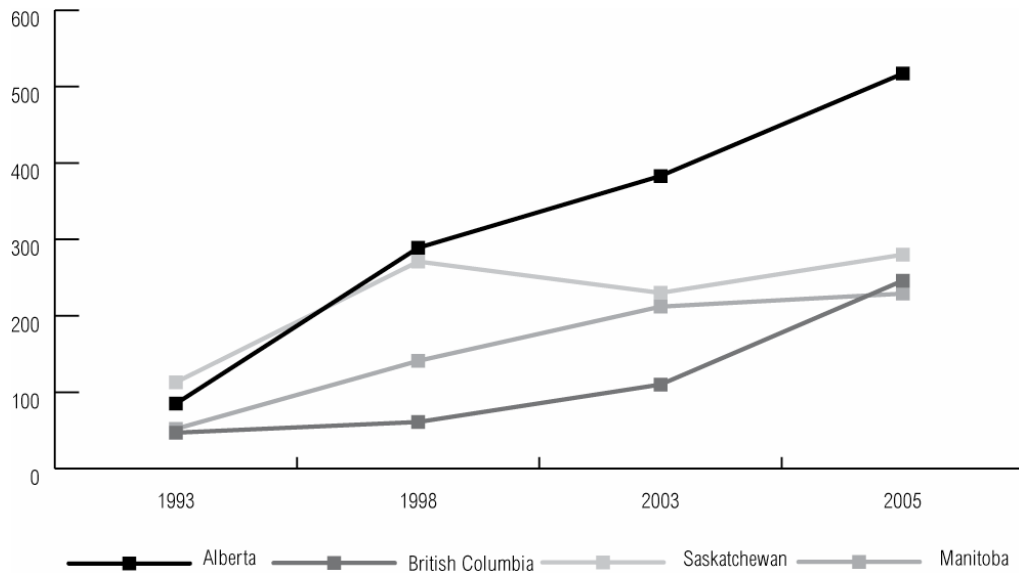
Figure 3.3 depicts the growth of each province's share of total exports to the U.S. since the initial Free Trade Agreement. It is apparent that large shares of each Western province's total exports go to U.S. markets, and for each Western province this share increased significantly from 1988 to 2005. Manitoba had the least growth at 24.6% and Saskatchewan had the most growth at 94.3%. Alberta has consistently had the greatest share of its exports going to U.S. markets, reaching 90% in 2005.

Figure 3.3: Western Canada: U.S. Share of Total Exports by Province, 1988 and 2005 (%)



The inclusion of Mexico under the North American Free Trade Agreement created one of the world largest free trade areas. Since its inception in 1994, trade with Mexico has increased significantly, however, this growth has been overshadowed by the size and growth of exports to the United States. Using 1993, *i.e.* the year prior to the NAFTA, as the base year, we can note positive growth for all provinces and an increasing proportion of exports destined for Mexico for all provinces. Figure 3.4 illustrates the export values from Western Canadian provinces in five year increments from 1993 to 2003, as well as the most recent two years. Worth noting is that exports to Mexico from British Columbia and Manitoba increased steadily, and those from Saskatchewan increased on balance. Alberta's exports to Mexico increased steadily and significantly.

Figure 3.4: Western Canada: Exports to Mexico by Province, 1993-2003, Annually Thereafter (\$millions)



Export values from Mexico and their growth percentages for each province from 1993 to 2005 are given in Table 3.2. Generally exports have grown significantly, with Western Canada's exports to Mexico increasing 328.4% from 1993 to 2005, up from \$297 million to \$1.27 billion. Alberta's exports to Mexico increased the most, by 508.5% (up to \$517 million from \$85 million), while Saskatchewan's exports to Mexico increased the least, by 147.8%. Despite being Canada's fifth largest export market in 2005, a very small share of each Western province's total exports is destined to Mexico. During that time Saskatchewan experienced a small increase of roughly 11%, while British Columbia saw a more than three-fold increase in the share of its exports going to Mexico.

Table 3.2: Western Canada: Exports to Mexico by Province (\$millions), Mexico Share of Total Exports by Province

Province	Exports to Mexico				Export Growth 1993 - 2005	Mexico's Share of Total Exports				Mexico Share Growth 1993 - 2005
	1993	1998	2003	2005		1993	1998	2003	2005	
WEST	297	762	935	1272	328.4%	0.6%	1.0%	0.9%	0.9%	50%
Alberta	85	289	383	517	508.5%	0.4%	0.9%	0.7%	0.6%	50%
British Columbia	47	61	110	246	423.4%	0.2%	0.2%	0.4%	0.7%	350%
Saskatchewan	113	271	230	280	147.8%	1.8%	2.7%	2.2%	2.0%	11%
Manitoba	52	141	212	229	340.8%	1.3%	1.7%	2.3%	2.3%	77%

Figure 3.5 depicts the development of each province's exports to Mexico as a share of its total exports. Saskatchewan and Manitoba show the greatest percentage of exports to Mexico, while British Columbia was able to increase its market share the most.

Figure 3.5: Western Canada: Mexico's Share of Provincial Exports, 1993 and 2005 (%)

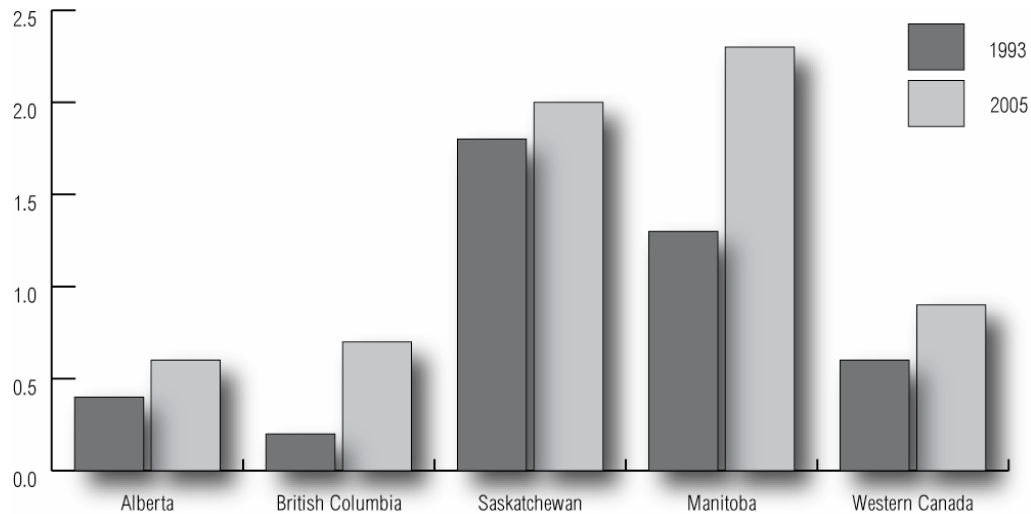


Table 3.3 provides an overview of Western Canada's top exports to NAFTA markets in 2005. A clear distinction in export patterns exists between the U.S. and Mexico as destinations. Whereas the U.S.-exports of Western provinces are primarily energy, raw materials and manufactured goods, the exports to Mexico from Western provinces are led by agricultural products.

Focusing on U.S.-bound exports, with the exception of British Columbia, Mineral Fuels was the top export category from each Western province. Furthermore, in 2005, Mineral Fuels from Alberta accounted for 51.3% of all Western Canadian exports to the U.S. For British Columbia, Wood was the top export to the U.S. followed by Mineral Fuels. In Alberta, Plastics was the second largest export category to the U.S. in 2005 and continues to show strong growth. For Saskatchewan, Fertilizers is well established as the second largest export category to the U.S., however the export values have changed little over the past three years. Finally, for Manitoba Vehicles is its second largest export category to the U.S., followed by Machinery.

Exports to Mexico from Western Canada are led by Miscellaneous Grains, Seeds and Fruit, followed closely by Meat and Cereals. Compared to exports to the U.S., exports to Mexico are more evenly distributed amongst categories and provinces. Alberta still leads Western Canada in terms of export values with the top export in 2005 being Meat followed by Miscellaneous Grains, Seeds and Fruit. British Columbia's exports to Mexico were led in 2005 by Ores and Paper and Paperboard. Saskatchewan and Manitoba both showed Miscellaneous Grains, Seeds and Fruit and Cereals amongst their top exports.

Table 3.3: Top Exports for 2005 to NAFTA Partners by Western Province (Two Digit HS Code), (\$billions)

HS	Product	Value	% of Total Exports to NAFTA	HS	Product	Value	% of Total Exports to NAFTA	HS	Product	Value	% of Total Exports to NAFTA
WESTERN CANADA											
NAFTA (Total Exports \$113.8)				U.S. (Total Exports \$112.5)				Mexico			
27	Mineral Fuels	\$68,928	60.6	27	Mineral Fuels	\$68,877	60.5	12	Misc. Grains, etc.	\$334	0.3
44	Wood	\$9,677	8.5	44	Wood	\$9,668	8.5	02	Meat	\$236	0.2
39	Plastic	\$3,669	3.2	39	Plastic	\$3,598	3.2	10	Cereals	\$173	0.2
84	Machinery	\$3,415	3.0	84	Machinery	\$3,388	3.0	39	Plastic	\$71	0.1
31	Fertilizers	\$2,312	2.0	31	Fertilizers	\$2,303	2.0	26	Ores; Slag; Ash	\$71	0.1
ALBERTA											
NAFTA (Total Exports \$73.0)				U.S. (Total Exports \$72.4)				Mexico			
27	Mineral Fuels	\$57,742	79.1	27	Mineral Fuels	\$57,742	79.1	02	Meat	\$190	0.3
39	Plastic	\$2,812	3.9	39	Plastic	\$2,744	3.8	12	Misc. Grains, etc.	\$107	0.1
44	Wood	\$1,547	2.1	44	Wood	\$1,546	2.1	39	Plastic	\$68	0.1
02	Meat	\$1,508	2.1	29	Organic Chemicals	\$1,346	1.8	10	Cereals	\$49	0.1
29	Organic Chemicals	\$1,359	1.9	84	Machinery	\$1,336	1.8	85	Electrical Machinery	\$19	0.0
BRITISH COLUMBIA											
NAFTA (Total Exports \$23.2)				U.S. (Total Exports \$22.9)				Mexico			
44	Wood	\$7,248	31.3	44	Wood	\$7,241	31.2	26	Ores; slag; ash	\$71	0.3
27	Mineral Fuels	\$4,993	21.5	27	Mineral Fuels	\$4,942	21.3	48	Paper & Paperboard	\$65	0.3
48	Paper & Paperboard	\$1,468	6.3	48	Paper & Paperboard	\$1,403	6.1	27	Mineral Fuels	\$51	0.2
84	Machinery	\$1,107	4.8	84	Machinery	\$1,099	4.7	84	Machinery	\$8	0.0
47	Wood Pulp	\$739	3.2	47	Wood Pulp	\$733	3.2	44	Wood	\$7	0.0
MANITOBA											
NAFTA (Total Exports \$7.8)				U.S. (Total Exports \$7.6)				Mexico			
27	Mineral Fuels	\$1,235	15.7	27	Mineral Fuels	\$1,235	15.7	12	Misc. Grains, etc.	\$101	1.3
87	Vehicles, Not Railway	\$730	9.3	87	Vehicles, not Railway	\$730	9.3	02	Meat	\$40	0.5
84	Machinery	\$591	7.5	84	Machinery	\$588	7.5	10	Cereals	\$38	0.5
01	Live Animals	\$547	7.0	01	Live Animals	\$547	7.0	41	Hides and Skins	\$21	0.3
44	Wood	\$444	5.7	44	Wood	\$443	5.6	20	Preserved Food	\$4	0.1
SASKATCHEWAN											
NAFTA (Total Exports \$9.8)				U.S. (Total Exports \$9.5)				Mexico			
27	Mineral Fuels	\$4,959	50.6	27	Mineral Fuels	\$4,958	50.6	12	Misc. Grains, etc.	\$121	1.2
31	Fertilizers	\$1,679	17.1	31	Fertilizers	\$1,670	17.1	10	Cereals	\$84	0.9
44	Wood	\$438	4.5	44	Wood	\$438	4.5	11	Milled Products	\$23	0.2
84	Machinery	\$366	3.7	84	Machinery	\$366	3.7	15	Fats and Oils	\$15	0.1
12	Misc. Grains, etc.	\$251	2.6	28	Inorganic Chemicals	\$220	2.2	07	Vegetables	\$14	0.1

4. Alberta: Selected Highlights

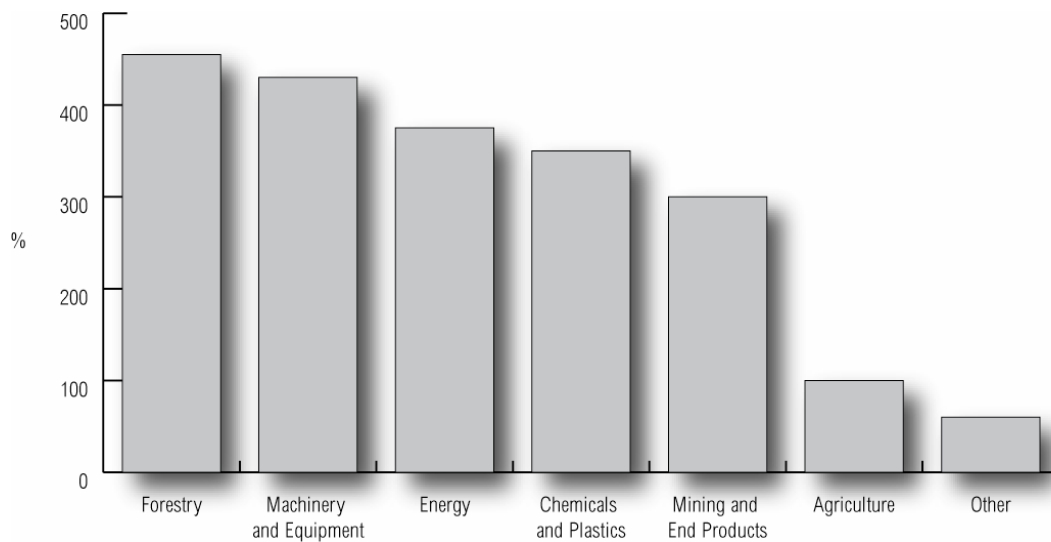
In this section a closer look is taken at Alberta's top exports to NAFTA countries in terms of Primary products and Non-Primary products. Primary products include natural resources or raw materials that are extracted and exported without extensive processing or alteration from their natural state. Non-Primary exports include both secondary and value-added exports found throughout the various industry sectors. The intent is to profile Alberta's export activity beyond natural resource extraction and to highlight sectors where that activity is most significant.

As before, values for the year 1993, the year prior to the implementation of NAFTA, were employed as the base from which to review export growth. Seven main export categories are examined: Energy (HS 27), Chemicals and Plastics (HS 28-40), Machinery and Equipment (HS 84-96), Agriculture (HS 1-24), Forestry (HS 44-49) Mining and End Products (HS 25-26; 72-83) and Other (HS 41-43; 50-71; 97-99). Values at the four-digit level for each category are compared for the years of 1993, 1998, 2003, and 2005.

Figure 4.1 depicts Alberta's exports to NAFTA countries for 1993 and 2005, broken down by sector. In both years energy exports represented the largest proportion of Alberta's total exports, 74.2% and 79.1% respectively. Over the period Chemicals and Plastics grew from 7.1% to 7.2% to become Alberta's second largest export category. At the same time, Agriculture fell from Alberta's second largest export in 1993 at 8.2% to fourth largest in 2005 at 3.8%, with restrictions on live cattle imports during the last three years contributing to a longer term downward trend in the relative importance of agricultural exports. Machinery exhibited some of the fastest export growth of all NAFTA-exports, moving from 3.7% to 4.4%. Forestry also grew strongly over the period, while Mining and End Products grew moderately and saw its relative position decline from 1993 to 2005.

Figure 4.1 illustrates the growth in export values to NAFTA countries amongst the leading sectors in Alberta. What is most notable is that the Forestry and the Machinery and Equipment sectors grew even faster than the Energy sector, though, undeniably, the Energy sector had the biggest impact on developments of export values. Table 4.1 shows the tremendous impact of the energy sector on export growth.

Figure 4.1: Alberta's Export Growth by Sector 1993 - 2005 to NAFTA Countries (%)



From 1993 to 2005, energy exports grew from \$12.2 to \$57.7 billion for a period growth rate of 372%. Although this growth is impressive, it has already been pointed out above that Alberta experienced even stronger growth rates in both Forestry and Machinery and Equipment, and close to equivalent growth in Chemicals and Plastics. In the past twelve years, the Chemicals and Plastics industry has become Alberta's second largest export sector, with exports growing from \$1.1 billion to \$5.2 billion, a period growth rate of 347%. At the same time the Machinery and Equipment industry posted very impressive gains. Its export values, \$603 million in 1993, grew to \$3.2 billion by 2005, for a period growth rate of 437%. Growth in these sectors would appear to reflect Alberta's increasing economic diversification and move towards more value-added industries.

To corroborate whether the data for Alberta reflect an increasing proportion of value-added production, exports were classified into 'Primary' and 'Non-Primary' products. Primary products consist of raw materials and minerals, whereas Non-Primary products involve a degree of processing or alteration beyond their natural state.

While some processing activities may be quite "shallow", it is hoped that this distinction provides preliminary insights into the nature and evolution of Alberta's export performance.

Table 4.1: Total Exports by Sector from Alberta to NAFTA Countries (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993–2005 %
27	Energy	12,234	15,664	40,023	57,742	372%
28-40	Chemicals and Plastics	1,175	1,952	3,344	5,246	347%
84-96	Machinery and Equipment	603	2,794	3,033	3,237	437%
1-24	Agriculture	1,349	2,589	2,226	2,770	105%
44-49	Forestry	418	1,861	1,990	2,384	470%
25-26, 72-83	Mining and End Products	187	368	484	731	291%
41-43, 50-71 97-99	Other	517	496	809	850	64%
	Total	\$16,483	\$25,724	\$51,909	\$72,961	343%

4.1 Energy Exports (HS 27)

Table 4.2 shows an increase of 373% in the Top 5 Primary energy exports to NAFTA countries from 1993 to 2005. This increase came mostly in the natural gas category, which experienced a 442% rise, while the export value of crude oil also increased, by 339%. The export value of Oil (not crude) increased by 144% and the export value of Petroleum Coke also rose significantly. Peat rounds out the Top five, rising 64% during the period. These last two categories are, however, not as significant due to the relatively small values, which are likely to experience fluctuations from one year to the next. It is noteworthy that the 373% increase in Primary energy exports to NAFTA-countries is largely due to increases in natural gas and crude oil exports.

Table 4.2: Top 5 Primary Exports of the Energy Sector from Alberta to NAFTA (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993–2005 %
2711	Natural Gas	6,321	8,618	23,612	32,362	412%
2709	Crude Oil from Petroleum and Bituminous Minerals	5,599	6,693	15,851	24,571	339%
2710	Refined Oil.	219	230	393	534	144%
2713	Petroleum Coke, Petroleum Bitumen & Other Residues	5	28	65	69	1,280%
2703	Peat (Including Peat Litter), including Agglomerated	25	51	26	41	64%
Top 5	Total	\$12,169	\$15,620	\$39,947	\$57,577	373%

4.2 Chemicals and Plastics (HS 28-40)

Table 4.3 shows an increase of 311% in the Top 5 Primary Chemical and Plastics exports to NAFTA countries from 1993 to 2005. This increase came mostly in the Cyclic and Acyclic Hydrocarbon categories, which experienced a phenomenal rises. The export value of Ammonia related products increased by 334%, while the export value of Acyclic Alcohol increased by 228%. Ethers round out the Top five, decreasing by 63%.

Since 1993, the value of Alberta's Top 5 Primary Chemicals and Plastics exports has increased by 311%. This increase is largely due to the emergence of Acyclic Hydrocarbons and ammonia products.

Table 4.3: Top 5 Primary Exports for the Chemicals and Plastics Sector from Alberta to NAFTA (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005 (%)
2902	Cyclic Hydrocarbons	0.8	125	427	501	62,525%
2901	Acyclic Hydrocarbons	0.3	78	207	378	125,900%
2814	Ammonia Products	82	148	199	356	334%
2905	Acyclic Alcohol & Related Products	96	165	233	315	228%
2909	Ethers & Related Products	217	319	39	79	-63%
Top 5	Total	\$396	\$835	\$1,105	\$1,629	311%

Table 4.4 shows an increase of 373% in Non-Primary Chemicals and Plastics exports of the Top 5 products to NAFTA countries from 1993 to 2005. This increase came mostly in the Primary Polymers of Ethylene category, which experienced an increase of 600%. At the same time Fertilizers continue to be a key export for Alberta, providing significant growth of 132% over the period. The export values of plastic related products have posted impressive growth over the period as well, with plastic containers growing 390% and plastic articles growing 680%.

Table 4.4: Top 5 Non-Primary Exports for the Chemicals and Plastics Sector from Alberta to NAFTA (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 – 2005 %
3901	Polymers of Ethylene	361	359	1,446	2,527	600%
3102	Mineral or Chemical Nitrogenous Fertilizers	199	389	287	461	132%
3923	Plastic Containers	10	21	41	49	390%
3815	Chemical Catalysts and Accelerators	15	10	41	44	193%
3917	Plastic Articles	5	34	29	39	680%
Top 5	Total	\$590	\$813	\$1,844	\$2,790	373%

Together, Tables 4.3 and 4.4 illustrate that the Top 5 Non-Primary Chemical and Plastics exports grew at a faster rate than the Top 5 Primary NAFTA-exports of that sector.

4.3 Machinery and Equipment (HS 84-96)

Given the nature of the sector, the examination of the Machinery and Equipment exports pertains only to Non-Primary exports. Since 1993, the value of Alberta's Machinery and Equipment exports has increased by 437%, as shown in Table 4.1. This increase is to a great extent due to the emergence of Electronic and Machinery Parts. The Electronic Parts category experienced a huge growth, while the export value of Machinery Parts also increased, by 689%. The export value of Electric Apparatus for Line Telephony and Parts increased by 84% while the export value of Furniture and Parts increased by 238%. Radio and Television Related Parts round out the Top five categories increasing 116%. The significance of the growth experienced in the Machinery and Equipment sector is that it contributes directly to Alberta's value-added industries and overall economic diversification. This sector shows a broadening of the range of products exported, inasmuch as its overall exports grew significantly faster (437%) than the Top 5 products (268%) shown in Table 4.5.

Table 4.5: Top 5 Exports for the Machinery and Equipment Sector from Alberta to NAFTA Countries (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
8529	Electronic Parts	4.0	136	242	266	6,649%
8431	Machinery Parts	28	159	138	221	689%
8517	Electric Apparatus for Line Telephony and Parts	117	257	342	215	84%
9403	Furniture and Parts	58	268	242	196	238%
8525	Radio and Television Related Parts	90	823	290	194	116%
Top 5	Total	\$297	\$1,643	\$1,254	\$1,092	268%

4.4 Agriculture (HS 1-24)

While Table 4.1 showed that overall agricultural exports have doubled over the period, Table 4.6 shows a decrease of 12% in the Top 5 Primary Agriculture exports to NAFTA countries from 1993 to 2005. This decrease resulted mainly from export restrictions on Live Cattle due to BSE concerns. The net effect of this recent restriction has been a 48% decrease in export value since 1993. Although Live Cattle exports have resumed, it appears that it may take years to reach the levels prevailing prior to these restrictions. Looking beyond cattle, Live Swine appear to be increasing again in recent years after a strong run in the late 1990's. Also, recently Rape and Colza Seeds appear to be rallying, posting 290% growth over the period and doubling in the last two years after an earlier sharp decline. It is important to note that most categories within the Agriculture sector contain a high degree of price and volume volatility due to market, regulatory and environmental factors. As a result it is particularly difficult to assess the role of free trade in their export growth.

Table 4.6: Top 5 Primary Exports for the Agriculture Sector from Alberta to NAFTA (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
0102	Cattle, Live	529	697	196	273	-48%
1205	Rape or Colza Seeds	39	128	75	152	290%
1001	Wheat & Meslin	72	156	59	73	1%
0103	Swine, Live	16	86	54	69	331%
1209	Seeds, Fruit & Spores, for Sowing	18	40	26	26	44%
Top 5	Total	\$674	\$1,107	\$410	\$593	-12%

Table 4.7 shows an increase of 339% in the Top 5 Non-Primary Agriculture exports to NAFTA countries from 1993 to 2005. This increase came mostly in the Beef category, which experienced an increase of 433%. At the same time Prepared and Frozen Vegetables have emerged as an important export with a huge growth rate, albeit from a small base. Fresh or Chilled Pork and Waste Oils are key contributors with growth rates of 106% and 330% respectively.

Table 4.7: Top 5 Non-Primary Exports for the Agriculture Sector from Alberta to NAFTA Countries (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
0201	Beef, Fresh or Chilled	239	779	936	1,274	433%
0203	Pork, Fresh or Chilled	67	62	54	138	106%
2004	Prepared and Frozen Vegetables	0.23	4	115	114	49,565%
2306	Waste Vegetable/Animal Fats & Oils	26	97	125	112	330%
1514	Vegetable Oils	57	84	70	71	25%
Top 5	Total	\$389	\$1,026	\$1,300	\$1,709	339%

Together, Tables 4.6 and 4.7 show that the Non-Primary components of agricultural exports are the key contributors to the overall increase in agricultural exports to NAFTA-countries.

4.5 Forestry (HS 44-49)

Forestry exports to NAFTA partners constitute approximately 3% of the total. As for Primary Forestry, there are very few unprocessed or un-altered exports of major significance. Table 4.8 shows an increase of 100% in exports to NAFTA countries from 1993 to 2005 for Wood in the Rough. On the other hand, Non-Primary Forestry Products have been exported to the NAFTA partners to a large and growing extent.

Table 4.8: Primary Forestry Products Exported to NAFTA Countries

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
4403	Wood in the Rough, Stripped or not of Sapwood etc.	6.9	17.8	14.5	13.8	100%

Table 4.9 shows an increase of 555% in the Top 5 Non-Primary Forestry exports to NAFTA countries from 1993 to 2005. This increase came mostly in the categories Particleboard, Dimensional Lumber, and Wood Pulp which experienced increases of 441%, 542% and 642%, respectively. Newsprint has grown hugely since 1993 and represents another important contributor to Alberta's exports. Finally, Fibreboard has shown consistent gains with a growth rate of 467% during the period of observation.

What many will be looking forward to in the future will be the effect of any resolution to the softwood lumber dispute on exports of Dimensional Lumber to the United States.

Table 4.9: Top 5 Non-Primary Exports for the Forestry Sector from Alberta to NAFTA Countries (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
4410	Particleboard	140	325	574	758	441%
4407	Dimensional Lumber	89	601	515	571	542%
4703	Wood Pulp	72	501	425	534	642%
4801	Newsprint	0.9	159	114	124	13,678%
4411	Fibreboard	9	33	38	51	467%
Top 5	Total	\$311	\$1,619	\$1,666	\$2,038	555%

The overall growth in Forestry exports to NAFTA-countries for 1993-2005 is 470% (Table 4.1). In this sub-section a breakdown into Primary and Non-Primary Forestry exports revealed that the Non-Primary exports have been growing at a faster rate than the Primary exports. As in the previous sub-sections, these findings are suggestive of increasing processing and diversification of Alberta's export industries.

4.6 Mining and End Products (HS 25-26, 72-83)

Table 4.10 shows an increase of 9% in the Top 5 Primary Mining and End Products exports to NAFTA countries from 1993 to 2005. This increase came mostly in the Aluminum Waste and Scrap category, which experienced a 48% increase, while the export value of Nickel Powders and Flakes also increased, by 61%. By contrast, Sulfur and Magnesite exports dropped markedly during this period.

Table 4.10: Top 5 Primary Exports for the Mining Sector from Alberta to NAFTA Countries (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
2503	Sulfur	45	43	51	40	-11%
7602	Aluminum Waste & Scrap	21	34	31	31	48%
7504	Nickel Powders & Flakes	8.7	16	14	14	61%
2519	Magnesite	15	13	12	10	-33%
2620	Ash & Residues	2.4	2.0	2.5	4.7	96%
Top 5	Total	\$92	\$108	\$111	\$100	9%

As regards Non-Primary Mining and End Products, Table 4.11 shows a major increase in the Top 5 exports to NAFTA countries from 1993 to 2005. This increase came mostly in Steel Tubes and Pipes, Iron Tubes and Pipes and Articles of Iron and Steel categories. Steel Bars have grown by leaps and bounds since 1993 and were another important contributor to Alberta's exports. Finally, Iron/Steel Springs and Leaves have shown consistent gains with a growth rate of 153%.

Table 4.11: Top 5 Non-Primary Exports for the Mining Sector from Alberta to NAFTA Countries (\$millions)

HS	Category	1993	1998	2003	2005	Export Growth 1993 - 2005
7305	Steel Tubes & Pipes	0.3	0.7	8.9	125	41,567%
7306	Iron Tubes & Pipes	9.2	7.6	22	68	639%
7326	Articles of Iron and Steel	5.8	24	37	54	831%
7320	Iron/Steel Springs & Leaves	20	47	43	51	155%
7228	Steel Bars	0.1	10	26	46	45,900%
Top 5	Total	\$34.5	\$89.3	\$136.9	\$344	897%

Tables 4.10 and 4.11 serve to make the point that exports of Non-Primary Mining and End Products to NAFTA partners grew faster during the observation period than unprocessed or un-altered exports of such products.

4.7 Summary

For the key exports from Alberta to NAFTA partners U.S. and Mexico we observe, for the period 1993-2005, a trend of increased growth in Non-Primary products, that is, products representing a degree of processing and alteration. This is suggestive of increasing specialization, diversification, and sophistication of the Alberta economy.

5. Exports to Chile, Israel, and Costa Rica

Canada signed free-trade agreements with Chile and Israel in 1996, and Costa Rica in 2001; these came into effect in 1997 and 2002 respectively. In this section, Tables 6.1 and 6.2 pertain to Chile and Israel respectively, and employ 1996 as the base year against which to measure export growth. Table 6.3, pertaining to Costa Rica, employs 2001 as the base year. Exports to these countries make up a small percentage of Western Canada's overall exports and have proven to show great variation in export products and values. This is due in large part to the smaller scale of these trade arrangements. During 1996 to 2005 Chile and Israel became relatively less important export destinations for Western Canada, as did Costa Rica for the 2001-2005 period. Possibly market ties between Canada and these trading partners are still weak and have not been developed to the same extent as the NAFTA trade. Also, economic conditions in these countries have not been as buoyant as in the NAFTA-countries. The experience with these countries demonstrates that establishing a free-trade agreement is but one means of increasing exports with a trading partner. Economic conditions, basic market forces, and proximity to the market may prove to be more important.

5.1 Chile

Chile ranks 36th amongst Canada's and 26th amongst Western Canada's export markets. Exports to Chile from Western Canada have experienced a decrease that was caused by the 1997 Asian crisis that had a severe impact on the country. While Chile's overall imports were fully recovered by 2003, Western Canada's exports to Chile were still down by 26% from 1996, to \$184 million from \$258 million. Similarly, the share of total exports going to Chile has declined from 0.33% in 1996 to 0.13% in 2005. Despite the overall decline in export values, Alberta and British Columbia have shown marked growth over the past three years. This is driven primarily by growth in Mineral Fuels (HS 27) and supported by growth in Electrical Machinery (HS 58). The emerging trend then is a move away from agriculture based exports to resource and value added exports.

Table 5.1: Exports to Chile by Western Province (\$millions)

Province	Exports to Chile				Export Growth 1996-2005	Chile's Share of Total Exports				Chile's Share Growth 1996-2005
	1996	2001	2004	2005		1996	2001	2004	2005	
WESTERN CANADA	248	180	150	184	-26%	0.33%	0.16%	0.12%	0.13%	-61%
Alberta	72	62	43	65	-10%	0.23%	0.11%	0.06%	0.08%	-65%
British Columbia	66	51	61	84	27%	0.25%	0.16%	0.19%	0.24%	-4%
Saskatchewan	85	62	33	23	-73%	0.91%	0.52%	0.26%	0.17%	-81%
Manitoba	25	6	13	11	-56%	0.40%	0.06%	0.14%	0.11%	-73%

5.2 Israel

Israel ranks 34th amongst Canada's and 47th amongst Western Canada's export markets. Exports to Israel from Western Canada have experienced increasing export values but a decreasing share of total exports since 1996. Western Canada's exports to Israel rose 49% from 1996 to 2005, up to \$64 million from \$43 million. The share of total exports to Israel has declined from 0.06% in 1996 to 0.05% in 2005. Important to note is that most of the growth has been posted in the past two years with Alberta and Manitoba showing the greatest gains. In Alberta the greatest growth in exports comes from Electric Machinery (HS 85) and Plastics (HS 39). In Manitoba, Pharmaceutical Products (HS 30) drove export value growth. Overall, trade with Israel is based mainly on secondary value added products.

Table 5.2: Exports to Israel by Western Province (\$millions)

Province	Exports to Israel				Export Growth 1996-2005	Israel's Share of Total Exports				Israel's Share Growth 1996-2005
	1996	2001	2004	2005		1996	2001	2004	2005	
WESTERN CANADA	43	34	70	64	49%	0.06%	0.03%	0.06%	0.05%	-17%
Alberta	12	13	34	30	150%	0.04%	0.02%	0.05%	0.04%	0%
British Columbia	19	17	24	18	-5%	0.07%	0.05%	0.07%	0.05%	-29%
Saskatchewan	10	2	7	11	10%	0.11%	0.02%	0.06%	0.08%	-27%
Manitoba	2	2	4	4	100%	0.03%	0.03%	0.04%	0.04%	33%

5.3 Costa Rica

Costa Rica ranks 69th amongst Canada's and 67th amongst Western Canada's export markets. Exports to Costa Rica from Western Canada have experienced decreasing export values and decreasing share of total exports since 2001. Western Canada's exports to Costa Rica have varied since the beginning of the free trade agreement with the most recent values showing a decline of 13% from 2001 to 2005, down to \$25 million from \$28.8 million. Similarly, the share of total exports to Costa Rica has declined from 0.03% in 2001 to 0.02% in 2005.

Although the free-trade agreement with Costa Rica was only implemented in 2002, two observations can be made. The first is that Western Canadian exports to Costa Rica do not seem to be growing significantly. Second, Alberta has emerged as the main benefactor of the agreement, with a high degree of export value variations characterizing the other provinces, likely because the small volume of trade increases sensitivity. Alberta's export growth to Costa Rica is due to growth in Milling; Malt; Starch (HS 11) and Preserved Foods (HS 20). It appears that trade with Costa Rica is based primarily on a wide range of value added and agriculture based products.

Table 5.3: Exports to Costa Rica by Western Province (\$millions)

Province	Exports to Costa Rica				Export Growth 2001-2005	Costa Rica's Share of Total Exports				Costa Rica's Share Growth 2001-2005
	2001	2003	2004	2005		2001	2003	2004	2005	
WESTERN CANADA	28.8	17.9	28.5	25.0	-13%	0.03%	0.03%	0.02%	0.02%	-33%
Alberta	1.4	5.1	7.7	9.4	571%	0.002%	0.00%	0.01%	0.01%	400%
British Columbia	9.2	6.9	12.1	7.1	-23%	0.03%	0.04%	0.02%	0.02%	-33%
Saskatchewan	15.8	5.3	7.8	7.4	-53%	0.13%	0.14%	0.05%	0.05%	-62%
Manitoba	2.4	0.6	0.9	1.1	-54%	0.03%	0.01%	0.01%	0.01%	-67%

6. Conclusions

- The Canada-U.S. Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA) appear to have contributed significantly to Alberta's and Western Canada's export growth.
- From 1988 to 2005, exports to the U.S. from Alberta and Western Canada increased by 687% and by 443% respectively, while exports to non-NAFTA countries increased by 97% and by 41%, respectively.
- From 1993 to 2005, exports to Mexico from Alberta and Western Canada increased by 509% and by 328% respectively, while exports to non-NAFTA countries increased by 113% and by 62%.
- Western Canada is now sending a higher proportion of its exports to the NAFTA region—80.9% in 2005 versus 52.4% in 1988.
- From 2004 to 2005, NAFTA export values increased by greater percentages than non-NAFTA exports, 21.1% versus 5.6% for Alberta, and 17.1% versus 7.9% for Western Canada.
- By most measures, Alberta is the strongest export performer in Western Canada. Much of this is due to rising oil prices. Since 1999 the price of crude oil has more than doubled and the price of natural gas has nearly tripled. In 2005, energy exports constituted 71% of Alberta's total exports.
- Energy exports to NAFTA countries from Alberta dominate the Western Canadian export picture. From 1993 to 2005, Alberta's energy exports to the NAFTA region increased from \$12.2 billion to \$57.7 billion, accounting for 80.6% of Alberta's total export growth and 56.7% of Western Canada's total export growth.
- In 2005, Alberta's energy exports constituted 50.7% of Western Canada's NAFTA exports. Of Alberta's energy exports, over 99% went to the U.S. Energy continued to account for the highest share of Alberta's total exports to NAFTA countries, increasing to 79.1% in 2005 from 74.2% in 1993.
- Along with the great rise of the value of energy exports due to rising oil and natural gas prices Alberta's Chemical and Plastics sector continues to grow rapidly. Since 1993 export values to the NAFTA region have grown by 347% compared to the Energy sector's 372%. The Machinery and Equipment sector has shown even stronger growth of 437% over that period. Together with growth in Alberta's Chemicals and Plastics sectors this points to strong growth for value-added products.
- A break down of Alberta's NAFTA-exports into Primary and Non-Primary products shows an increasing proportion of exports of the Non-Primary products variety. This evidence is suggestive of an increasing value-added component in Alberta's exports and indicative of diversification of the provincial economy.

- Alberta's Mining and End Products sector continues to benefit from record high commodity prices fuelled by foreign demand. Although export values have proven to fluctuate for the sector, we observe a growth rate of 291% from 1993 to 2005 for exports to the NAFTA partners.
- Agricultural exports to the NAFTA countries also grew during the period reviewed here, albeit at a slower pace, 105%. This sector is historically subject to regulatory restrictions and the influence of weather conditions. Most recently exports of live cattle were negatively affected by trade partners' response to BSE.
- The end of trade restriction on live cattle signals future growth in the agriculture sector. Although it will take some time before export values match 1993 levels, 2005's \$273 million to the US and Mexico is a positive development for Alberta's cattle industry.
- Alberta's Forestry sector showed very strong export growth of 471% for 1993 to 2005. This sector may benefit from a resolution of the softwood lumber dispute. Export volumes and prices in this sector are moving with the US construction cycle.
- Trade agreements with Chile, Israel, and Costa Rica do not appear to have had a discernible effect on exports of Western Canada or any of its provinces. Fast increasing trade with the NAFTA trading partners makes these trade partners relatively smaller export markets that exhibit great fluctuations in export values from year to year.

HS 2 DIGIT CODES

AGRICULTURAL PRODUCTS

Section I - Live Animals & Animal Products

- 1 Live animals
- 2 Meat
- 3 Fish and seafood
- 4 Dairy, eggs, honey, etc.
- 5 Other products of animal origin

Section II - Vegetable Products

- 6 Live trees and plants
- 7 Vegetables
- 8 Edible fruit and nuts
- 9 Spices, coffee and tea
- 10 Cereals
- 11 Milled products; malt & starch
- 12 Misc. grains, seeds and fruit
- 13 Resin; vegetable saps & extracts
- 14 Other vegetable products

Section III - Oils & Fats

- 15 Fats and oils

Section IV - Prepared Food

- 16 Prepared meat, fish, etc.
- 17 Sugars and confectionery
- 18 Cocoa
- 19 Baking-related preparations
- 20 Preserved food
- 21 Miscellaneous food
- 22 Beverages
- 23 Food waste; animal feed
- 24 Tobacco

NON-AGRICULTURAL PRODUCTS

Section V - Mineral Products

- 25 Salt; sulfur; earth; stone
- 26 Ores; slag; ash
- 27 Mineral fuels; coal, oil & gas

Section VI - Chemical Products

- 28 Inorganic chemicals
- 29 Organic chemicals
- 30 Pharmaceutical products
- 31 Fertilizers
- 32 Tanning extracts; dye; paint; putty
- 33 Perfumery; cosmetics
- 34 Soap; wax; dental plasters
- 35 Albumins; glues
- 36 Explosives
- 37 Photographic & cinematographic goods
- 38 Misc. chemical products

Section VII - Plastics & Articles Thereof

- 39 Plastic
- 40 Rubber

Section VIII - Raw Hides, Leather & Fur

- 41 Hides and skins
- 42 Articles of leather
- 43 Furskins & artificial fur

Section IX - Wood & Articles Thereof

- 44 Wood
- 45 Cork
- 46 Straw

Section X - Wood Pulp; Paper

- 47 Wood Pulp
- 48 Paper & paperboard
- 49 Books & newsprint

Section XI - Textiles & Articles Thereof

- 50 Silk
- 51 Wool
- 52 Cotton
- 53 Other vegetable textile fibres
- 54 Manmade filament
- 55 Manmade staple fibres
- 56 Wadding; felt; twine; rope
- 57 Textile floor coverings
- 58 Special woven fabrics
- 59 Coated textile fabrics
- 60 Knitted fabrics
- 61 Apparel - knitted
- 62 Apparel - not knitted
- 63 Misc. textile articles

Section XII - Footwear; Headgear; Umbrellas; Etc.

- 64 Footwear
- 65 Headgear
- 66 Umbrellas, etc.
- 67 Feathers; artificial flowers; etc.

Section XIII - Stone; Ceramics; Glass

- 68 Stone, plaster, cement, etc.
- 69 Ceramic products
- 70 Glass and glassware

Section XIV - Precious Stones; Jewellery; Coins

- 71 Precious stones & metals; jewellery; coins

Section XV - Base Metals & Articles Thereof

- 72 Iron and steel
- 73 Articles of iron or steel
- 74 Copper and articles thereof
- 75 Nickel and articles thereof
- 76 Aluminum and articles thereof
- 77 (NOT USED)
- 78 Lead and articles thereof
- 79 Zinc and articles thereof
- 80 Tin and articles thereof
- 81 Other base metals and articles thereof
- 82 Tool, cutlery, etc. of base metal
- 83 Misc. art of base metal

Section XVI - Machinery & Electrical Equipment

- 84 Machinery
- 85 Electrical machinery

Section XVII - Vehicles

- 86 Railway
- 87 Vehicles, not railway
- 88 Aircraft; spacecraft
- 89 Ships and boats
- 90 Optical, photographic, measuring & medical apparatus
- 91 Clocks and watches
- 92 Musical instruments

Section XIX - Arms & Ammunition

- 93 Arms and ammunition

Section XX - Misc. Manufactured Articles

- 94 Furniture and bedding
- 95 Toys and sports equipment
- 96 Miscellaneous manufactured articles

Section XXI - Works of Art; Special Classifications

- 97 Art and antiques
- 98 Special classification provisions
- 99 Special (miscellaneous) transactions