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THE ALBERTA AND WESTERN CANADA EXPORT EXPERIENCE UNDER THE FREE TRADE AGREEMENTS: 1988-1999

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Outline

INTRODUCTION

This Report is the latest in an annual series on Western Canada and recent free trade agreements, both the Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA). The annual series reviews the merchandise exports of Alberta and other western Canadian provinces in the years since the FTA came into effect in 1989. Like previous reports, the year 1988 has been employed as a benchmark against which to assess growth in aggregate exports as well as in some 98 categories of shipments from the western provinces to the United States and to other parts of the world.

This year's annual report will summarise the merchandise export experience—service exports are not considered— of 1999 and draw some comparisons with provincial export experience in 1998. For much of the report, 1988 will be used as a benchmark. Information is provided on the top 20 exports, based on 1999 rankings for Alberta and the other western provinces, as well as for western Canada as a whole. The report also provides data on the share of exports going to the U.S. market as well as the performance of a selected set of Alberta exports. The report concludes with an overview of merchandise exports to Mexico and Chile.

The report also applies an export price index to separate Alberta export volumes from export values. This index is weighted by current export values and does not completely incorporate measures of unit price for all merchandise exports, but does cover about 85% of Alberta's exports, including energy, chemicals, forest products, agriculture, processed food and telecommunications components. Estimates of the effects of price and volume changes on export shipments in selected Harmonised System (HS) categories are contained in relevant sections of the report.

The U.S. dollar exchange rate showed little change in 1999 over 1998 levels so last year's exports to that market should be unaffected by exchange rate movements.

EXECUTIVE SUMMARY

- Over the 1988-99 period, Alberta merchandise exports to all foreign countries rose by $21.86 billion, an increase of 168%. This growth was, by a substantial margin, the strongest and most sustained of the western provinces.
- Alberta is the export leader in Western Canada. Global exports in 1999 rose by 11.8% over 1998 and now account for just over 42% of total western Canadian exports.
- In Alberta, the top five export categories (energy, electrical equipment, wood and products, meat and woodpulp) accounted for 72.5% of the value of all exports in 1999. The next top fifteen export categories account for an additional 21.3% of export values. Almost 55% of the growth in total exports between 1988 and 1999 was directly attributable to the energy industry.
- Greater access to the U.S. market for all western provinces has been important to export growth. During 1988-1999 the U.S. market share increased for the top twenty exports of each province at a western Canada average of 23.6%. More than four-fifths of Alberta's top twenty exports now go to the U.S. market compared with some 69.5% in 1988.
- All provinces showed an increase in export performance on a per employee basis. Exports per employed Albertan amounted, in 1999, to $22,448. The Western Canadian average was $18,429.
- For Alberta, the weighted export price index increased from –12% in 1998 to 20.5% in 1999.
- Alberta's crude oil and gas exports, combined, accounted for $18.95 billion in export value in 1999, an increase of almost 17% over 1998. U.S. market share for these exports rose from 93.0% in 1988 to 96.9% in 1999.
- Exports of electrical equipment and parts grew remarkably in 1999, continuing a trend of strong growth exhibited since at least 1995. U.S. market share increased again in 1999 and now stands at about 89%, which is a 24% increase since 1988. This was Alberta's second most valuable export category.
- During 1999, Alberta's exports of wood, pulp and paper products grew, repeating a strong performance in 1998. Exports of wood products rose by almost 30%, while the value of wood pulp exports increased by almost 9.4%. Paper and paperboard exports fell in value by 3.2%. The wood and wood pulp categories rose to take the 3rd and 5th position, respectively, in Alberta's list of top twenty exports.
- Meat exports rose by 26.8% reaching $1.39 billion and taking the fourth spot on the list of Alberta exports.
- Machinery and parts exports declined precipitously in 1999 after being a star performer in previous years. U.S. market share in this sector slightly increased from 62.2% in 1998 to 68.6% in 1999.
- The optical, measuring and precision instruments sector posted a mixed performance, with an overall decline in value. U.S. market share in this sector has increased slightly since 1988.
- Alberta exports to Mexico have tripled since 1988 and constituted almost $240 million in 1999, but Mexico remains a small market for merchandise exports.
- Alberta exports to Chile are small but growing. Since 1988, the export value has increased by about $57 million, or five-fold. Alberta's strengthened investment ties with Chile should induce subsequent exports.

1. THE FTA/NAFTA EXPERIENCE FROM 1988-1999: AGGREGATE EXPORT VALUES AND U.S. MARKET SHARES

DOLLAR VALUE OF MERCHANDISE EXPORTS

This section of report shows the total value of Alberta exports and those of other western provinces. Table 1.1 reveals that the value of aggregate exports from western Canada rose to $82.6 billion in 1999, an increase of $6.4 billion, or 8.5% over 1998. Since the value of western Canadian exports actually declined in 1998 over 1997 levels, shipments in 1999 more than made up for ground lost in 1998.

Table 1.1. Western Canada: Dollar Value of Merchandise Exports, 1988-1999 ($Billions)

Year	Alberta	B.C.	Sask.	Manitoba	Western Canada
1988	13.009	17.419	5.760	2.909	39.097
1989	13.490	17.802	4.490	2.929	38.711
1990	15.191	16.650	5.401	2.969	40.211
1991	16.029	15.300	5.691	3.079	40.099
1992	17.884	16.358	6.586	3.430	44.258
1993	19.688	18.996	5.981	3.435	48.100
1994	23.008	22.812	7.442	4.730	57.992
1995	26.543	26.934	8.778	5.439	67.694
1996	30.783	25.197	8.908	5.986	70.874
1997	33.330	26.566	9.804	7.008	76.708
1998	31.188	26.890	9.944	8.138	76.161
1999	34.869	29.735	9.964	8.039	82.606

*exports represent aggregated export values

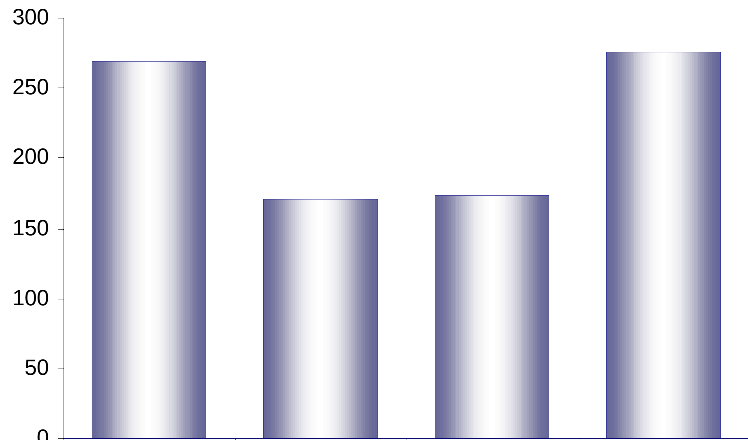
Source: TIERS, CTA and the Western Centre for Economic Research

Alberta's exports in 1999 were 268% above the levels of 1988, and increased by 11.8% over 1998. Alberta export shipments of $34.87 billion, which account for slightly more than 42.2% of international shipments from western Canada, are the highest in the region and exceed those of British Columbia by $5.1 billion.

PROVINCIAL INDEX OF EXPORT VALUES

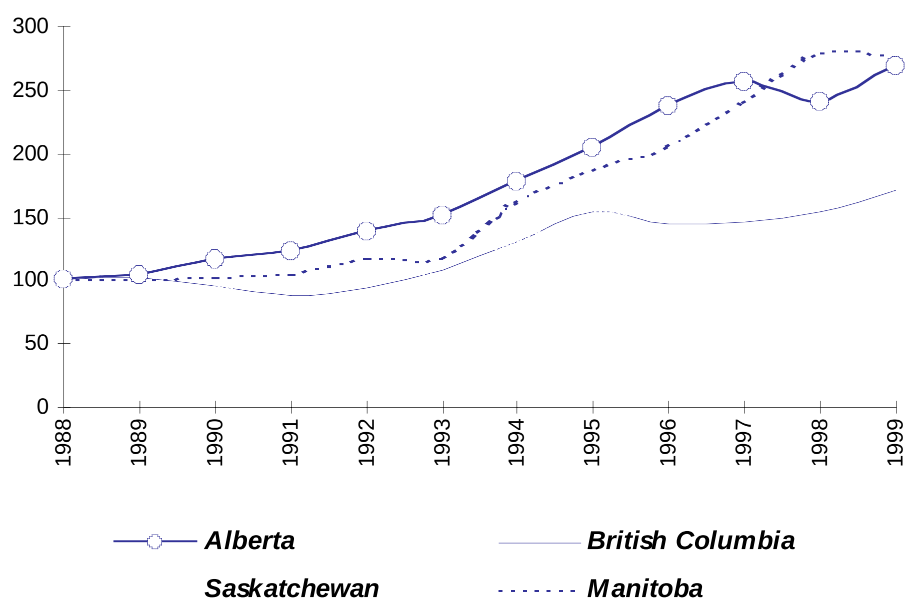
Figures 1.1 and 1.2 show the trend since 1988 in provincial export values converted to an index basis (1988 values = 100). In the case of Alberta, the figure displays sustained growth in export values with the exception of 1998. The Alberta index in 1999 stood at 268, substantially above the levels of Saskatchewan (171) and British Columbia (173), but slightly below Manitoba (276), a province whose export growth has been very rapid in recent years.

Figure 1.1. Western Canada: Index of Provincial Export Values in 1999 (1988 = 100)



	Alberta	British Columbia	Saskatchewan	Manitoba
1999	268	171	173	276

Figure 1.2. Western Canada: Dynamics of the Index of Export Value, 1988-1999 (1988 =100)



Source: TIERS, CTA and Western Centre for Economic Research

EXPORT PERFORMANCE PER EMPLOYEE

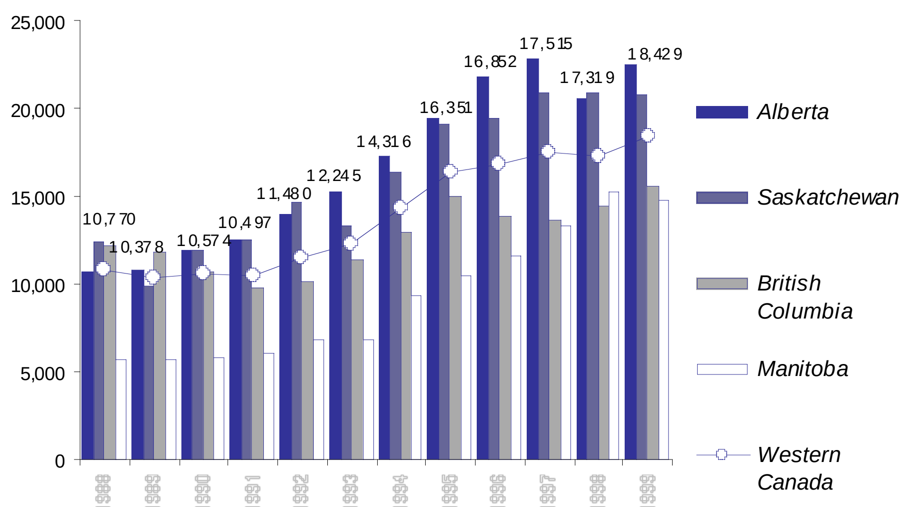
Provincial merchandise export intensities can also be measured by the value of exports per employed person. Table 1.2 and Figure 1.3 show these values for 1988 through 1999. In the case of Manitoba and Alberta, this measure of export intensity has more than doubled since 1988, while the growth in Saskatchewan has been 67% and in British Columbia only 28.5%. If comparisons are drawn over the past three years, only British Columbia shows sustained growth in this measure and this growth only brings performance back to the level of 1995.

Table 1.2. Western Canada: Export Performance on a Per Employee Basis, 1988-1999 ($Dollars)

Year	Alberta	British Columbia	Manitoba	Saskatchewan	Western Canada
1988	10,632	12,135	5,730	12,427	10,770
1989	10,780	11,798	5,702	9,846	10,378
1990	11,882	10,708	5,763	11,889	10,574
1991	12,452	9,729	6,075	12,552	10,497
1992	13,927	10,096	6,830	14,685	11,480
1993	15,205	11,335	6,782	13,268	12,245
1994	17,278	13,006	9,284	16,331	14,316
1995	19,384	15,028	10,480	19,108	16,351
1996	21,857	13,835	11,543	19,471	16,852
1997	22,862	13,679	13,333	20,860	17,515
1998	20,581	14,378	15,191	20,878	17,319
1999	22,448	15,597	14,812	20,754	18,429

Source: Labour Force Survey, TIERS, CTA and Western Centre for Economic Research

Figure 1.3. Western Canada: Dynamics of Export Performance on a $ per Employee Basis, 1988-1999



Source: Labour Force Survey, TIERS, CTA and Western Centre for Economic Research

GREATER ACCESS TO THE U.S. MARKET

Table 1.3 and Figure 1.4 show the value of exports from western Canada and each of the four provinces in 1988, 1998 and 1999, the growth from 1988-99, and the share of these exports going to the U.S. market in each of the three years. The data reveal that, in 1999, three of every four dollars of exports from western Canada went to the U.S. market. This market share is 4 percentage points higher than in 1998, and 23.6 percentage points higher than in 1988.

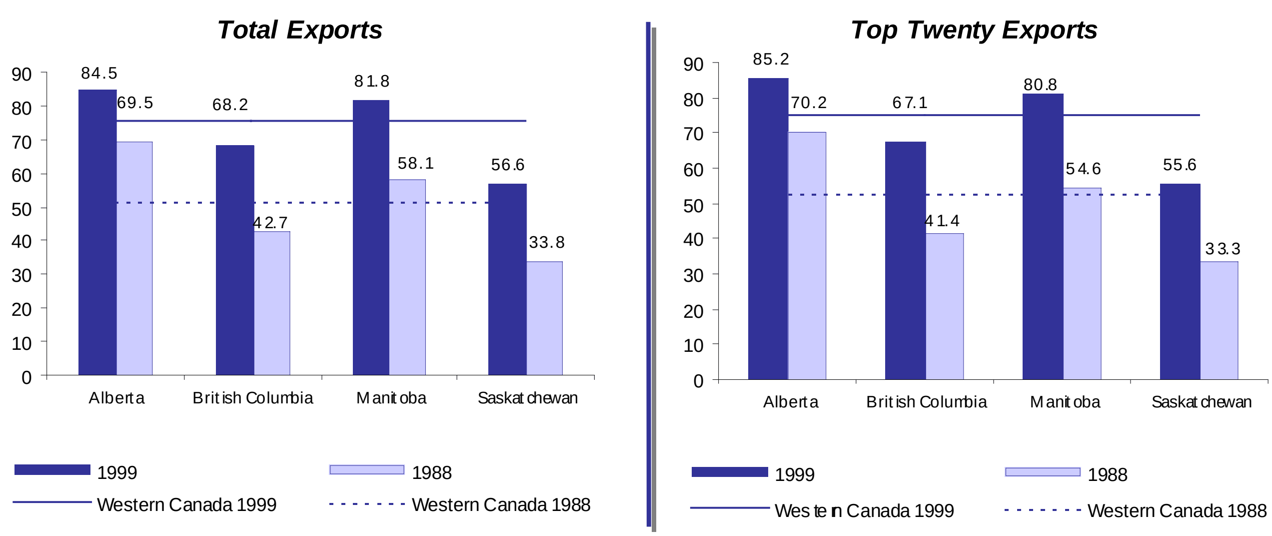
The provincial U.S. export market shares ranged in 1999 from 84.5% in the case of Alberta to 56.6% in the case of Saskatchewan. British Columbia and Manitoba, in 1999, sent 68.2% and 81.8% respectively of their exports to the U.S. The increased importance of the American market in 1999 was experienced by all four provinces.

Table 1.3. Western Canada: Comparison of Total Exports From the Provinces and Shares to the U.S. Market in 1988, 1998, and 1999 ($Billions)

Province	'88 Total Exports	'98 Total Exports	'99 Total Exports	Growth 1988-99	'88 U.S. Market Share %	'98 U.S. Market Share %	'99 U.S. Market Share %	Market Share Change, 1988-1999
AB	13.009	31.188	34.869	21.860	69.5	81.5	84.5	15.0
BC	17.419	26.890	29.735	12.316	42.7	63.5	68.2	25.5
MB	2.909	8.138	8.039	5.130	58.1	75.4	81.8	23.7
SK	5.760	9.944	9.964	4.204	33.8	54.4	56.6	22.8
Western Canada	39.097	76.161	82.606	43.509	51.4	71.0	75.0	23.6

Source: TIERS, CTA and the Western Centre for Economic Research

Figure 1.4. Western Canada: Comparison of the U.S. Market Shares of Total and Top Twenty Exports, 1988 and 1999, %



Source: TIERS, CTA and the Western Centre for Economic Research

2. Western Canada's Top 20 Exports: Their Contribution to Export Growth

Western Canada Top 20 Exports

Table 2.1 reveals that the composition of western Canada's merchandise exports remain dominated by the energy, forestry and agricultural industries. The table contains the contribution of the top 20 merchandise exports in western Canada (ordered by 1999 HS value) together with their contribution to the growth in export values between 1988 to 1999, as well as their U.S. market shares. Table 2.1 shows that, in 1999, 59.6% of the total value of the region's exports were accounted for by the first five ranked HS two digit categories. The next 15 represented another 28.1% with just over 12.3% in all other HS classes.

The top twenty exports in 1999 produced 88.0% of the growth in western Canadian exports since 1988 and the top five—energy, sawn lumber, wood pulp, cereals, and electrical equipment—accounted for 57.7% of the growth. Energy alone made up 34.7% of the total increase.

Table 2.1. Western Canada's Top Twenty Exports and Their Share in Export Growth ($Millions)

HS CATEGORY	1999 Export Value	As % of 1999 Total	1988 Export Value	Export Growth 1998-1999	% of Total Growth 1988-1999	% U.S. Share	
						1999	1988
27) Mineral fuels, oils	24,888	30.1	9,810	15,078	34.7	92.6	79.6
44) Wood and articles of wood	12,011	14.5	5,256	6,755	15.5	78.5	58.4
47) Wood pulp	4,913	5.9	3,934	979	2.3	30.2	31.7
10) Cereals	3,911	4.7	4,829	-918	-2.1	18.1	3.3
85) Electrical equipment	3,506	4.2	277	3,229	7.4	85.5	75.3
84) Machinery, boilers, appliances	3,006	3.6	961	2,045	4.7	80.6	77.1
48) Paper & paperboard	2,728	3.3	1,674	1,054	2.4	80.9	68.5
31) Fertilizers	2,653	3.2	1,429	1,224	2.8	66.1	55.4
87) Vehicles, parts	2,194	2.7	515	1,679	3.9	94.8	87.3
12) Oil seeds, misc. grains	1,895	2.3	995	900	2.1	15.5	11.7
02) Meat and edible meat offal	1,826	2.2	324	1,502	3.5	76.1	76
39) Plastics	1,485	1.8	726	759	1.7	82.9	65.1
29) Organic chemicals	1,283	1.6	1,037	246	0.6	64.6	44.3
01) Live animals	1,139	1.4	448	691	1.6	99.6	98.7
94) Furniture; bedding	1,010	1.2	121	889	2.0	88.8	81.8
90) Optical & photo equipment	911	1.1	86	825	1.9	80.9	55.7
03) Fish	850	1.0	622	228	0.5	67.2	27.5
07) Edible vegetables, roots	835	1.0	138	697	1.6	27.1	14.7
76) Aluminum and articles thereof	732	0.9	629	103	0.2	44.5	20.5
28) Inorganic chemicals	692	0.8	354	338	0.8	73.4	56.7
Total top twenty	**72,467**	**87.7**	**34,165**				
Growth top twenty				**38,302**	**88.0**		
U.S. share top twenty						**74.9**	**52.8**
All other exports	**10,139**	**12.3**	**4,932**				
Growth of all other exports				**5,207**	**12.0**		
Total exports	**82,606**	**100.0**	**39,097**				
Total export growth				**43,509**	**100.0**		
U.S. share of total exports						**75.0**	**51.4**

Source: TIERS, CTA and the Western Centre for Economic Research

ALBERTA TOP 20 EXPORTS

Table 2.2 shows Alberta's top twenty exports rank ordered by 1999 export value, together with their contribution to the dollar value over the period 1988 to 1999. The top five export categories accounted for 72.5% of total export values, and the remaining 15 for 21.3%. All other HS categories amounted to 6.2% of total export values.

Table 2.2. Alberta's Top Twenty Exports and Their Share in Export Growth ($Millions)

HS CATEGORY	1999 Export Value	As % of 1999 Total	1988 Export Value	Export Growth 1988-1999	% Total Growth 1988-1999	%U.S. Share	
						1999	1988
27) Mineral fuels, oils	18,946	54.3	6,874	12,072	55.2	96.9	93.0
85) Electrical equipment	2,141	6.1	113	2,028	9.3	88.8	64.9
44) Wood and articles of wood	1,505	4.3	229	1,276	5.8	92.6	92.4
02) Meat and edible meat offal	1,389	4.0	159	1,230	5.6	82.3	67.9
47) Wood pulp	1,308	3.8	385	923	4.2	41.6	94.9
10) Cereals	1,050	3.0	1,251	-201	-0.9	16.2	4.8
29) Organic chemicals	1,032	3.0	892	140	0.6	70.5	45.1
84) Machinery, boilers, appliances	933	2.7	172	761	3.5	68.6	54.6
39) Plastics	860	2.5	622	238	1.1	73.8	61.8
01) Live animals	559	1.6	282	277	1.3	99.6	98.4
12) Oil seeds, misc. grains	527	1.5	296	231	1.1	14.7	8.8
31) Fertilizers	410	1.2	196	214	1.0	97.2	62.2
94) Furniture; bedding	378	1.1	33	345	1.6	94.3	83.3
25) Salt; sulphur; earth & stone	329	0.9	803	-474	-2.2	26.2	13.2
28) Inorganic chemicals	272	0.8	94	178	0.8	87.1	89.2
87) Vehicles, parts	249	0.7	42	207	0.9	92.2	70.3
48) Paper and paperboard	215	0.6	8	207	0.9	99.3	96.9
75) Nickel and articles thereof	214	0.6	21	193	0.9	9.9	43.3
90) Optical & photo equipment	208	0.6	34	174	0.8	46.6	40.5
73) Articles of iron or steel	177	0.5	46	131	0.6	33.5	29.2
Total top twenty	**32,703**	**93.8**	**12,552**				
Growth top twenty				**20,151**	**92.2**		
U.S. share top twenty						**85.2**	**70.2**
All other exports	**2,166**	**6.2**	**457**				
Growth of all other exports				**1,709**	**7.8**		
Total exports	**34,869**	**100.0**	**13,009**				
Total export growth				**21,860**	**100.0**		
U.S. share of total exports						**84.5**	**69.5**

Source: TIERS, CTA and the Western Centre for Economic Research

Apart from energy (crude oil, natural gas and coal) whose dominance remains striking, the most notable feature of the Alberta table is the positioning of HS 85 (telecommunications equipment and parts) which now ranks second in value.

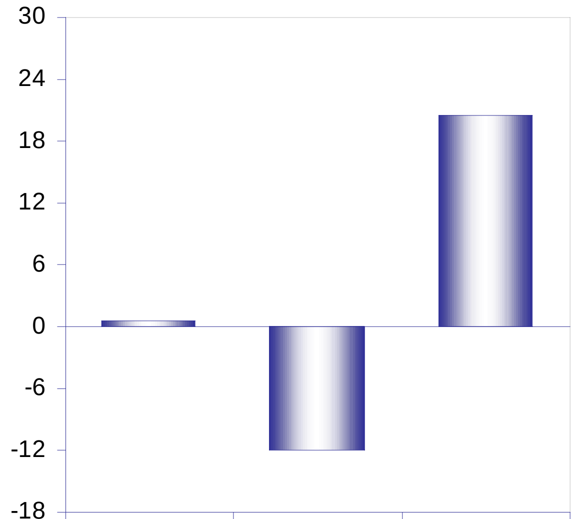
Alberta's U.S. market share increased for 18 of the top 20 exports from 1988 to 1999. As expected, the more important categories in terms of total export value have benefited markedly from the greater access to the U.S. With the exception of wood pulp (HS 47) the U.S. market share for the top five export categories has increased.

ESTIMATE OF THE VOLUME OF ALBERTA EXPORTS

Changes in export value are a combination of changes in physical quantities and changes in unit price. It is useful to estimate the share of value changes attributable to each, and to do this, an index of price change is required.

The Alberta export price index developed here covers the following categories of shipments: crude oil, natural gas, coal wheat, oilseeds, lumber, wood pulp, paper and paperboard, livestock and meat products, fertilisers, organic and inorganic chemicals, and telecommunications equipment. Current export values are used as weights. The index covers approximately 85% of Alberta's exports.

Figure 2.1. Percent Change in Alberta Export Prices 1997-1999



	1997	1998	1999
% Change in export prices	0.5	-12	20.5

Source: CANSIM and the Western Centre for Economic Research

The price changes in these current weight indexes reflect the price volatility inherent in the composition of Alberta's exports. In 1999, the export price index rose by 20.5% which compares with a 12.0% decrease in 1998 and stability in 1997. The results indicate that the growth in the price index exceeded the growth in the value of exports during 1999, and that aggregate export volumes declined compared with 1998 levels.

British Columbia Top 20 Exports

Table 2.3 shows British Columbia's top 20 exports. In 1999, these 20 classes accounted for 89.4% of export values, and the top 4 equalled approximately three fifths of total shipments. The top 4 categories are the same as in 1988. In examining the growth between 1988 and 1999, these top 20 exports accounted for 90.1% of the growth in shipments.

The U.S. share of British Columbia exports rose in 1999 to 68.2%. Particularly notable are the substantial increases over the past decade in traditional forestry exports.

Table 2.3. British Columbia's Top Twenty Exports and Their Share in Export Growth ($Millions)

HS CATEGORY	1999 Export Value	As % of 1999 Total	1988 Export Value	Export Growth 1988-1999	% of Total Growth 1988-1999	%U.S. Share	
						1999	1988
44) Wood and articles of wood	9,873	33.2	4,951	4,922	40.0	75.0	57.2
47) Wood pulp	3,327	11.2	3,362	-35	-0.3	25.0	23.1
27) Mineral fuels, oils	3,215	10.8	2,096	1,119	9.1	60.9	27.3
48) Paper & paperboard	2,082	7.0	1,538	544	4.4	76.0	66
84) Machinery, boilers, mechanical appliances	1,370	4.6	376	994	8.1	83.5	74.7
87) Vehicles, parts	1,119	3.8	264	855	6.9	93.2	82.8
85) Electrical equipment	1,083	3.6	78	1,005	8.2	77.2	70
03) Fish and fish products	798	2.7	570	228	1.9	66.5	24.6
76) Aluminium and articles thereof	625	2.1	594	31	0.3	35.6	16.6
79) Zinc and articles thereof	461	1.5	105	356	2.9	78.2	59.7
39) Plastics and articles thereof	389	1.3	50	339	2.8	94.0	75.7
90) Optical & photo equipment	377	1.3	45	332	2.7	84.5	63.2
73) Articles of iron or steel	338	1.1	105	233	1.9	95.6	92.6
94) Furniture; bedding	324	1.1	54	270	2.2	75.2	71.5
26) Ores, slag and ash	305	1.0	1,035	-730	-5.9	4.9	0.9
29) Organic chemicals	206	0.7	138	68	0.5	27.5	36.8
61) Apparel & clothing accessories	185	0.6	15	170	1.4	98.1	90.3
28) Inorganic chemicals	179	0.6	41	138	1.1	68.8	74.7
07) Edible vegetables	174	0.6	55	119	1.0	84.5	19.2
49) Printed books, newspaper	165	0.6	27	138	1.1	96.3	97.1
Total top twenty	**26,596**	**89.4**	**15,499**				
Growth top twenty				**11,097**	**90.1**		
U.S. share top twenty						**67.1**	**41.4**
All other exports	**3,139**	**10.6**	**1,920**				
Growth of all other exports				**1,219**	**9.9**		
Total exports	**29,735**	**100.0**	**17,419**				
Total export growth				**12,316**	**100.0**		
U.S. share of total exports						**68.2**	**42.7**

Source: TIERS, CTA and the Western Centre for Economic Research

MANITOBA TOP 20 EXPORTS

Table 2.4 reveals the Manitoba picture. Manitoba is a diversified economy and this is reflected in the composition of its exports. There are 21 HS chapters in which exports top the $100 million mark. Manitoba's top five export categories account for 41.1% of total shipments, and within that group a variety of sectors—energy, agriculture and manufacturing—were represented.

Shipments from the top five export categories brought about 39.1% of the growth in exports over the 1988-1999 years. Like other western provinces, Manitoba saw the U.S. share of shipments climb steadily from 58.1% in 1988 to 81.8%. Notable is the increased U.S. share in cereals, wood products, animal/vegetable fats and oils, pharmaceutical products, processed vegetables, fruits and nuts, and edible vegetables and roots.

Table 2.4. Manitoba's Top Twenty Exports and Their Share in Export Growth ($Millions)

HS CATEGORY	1999 Export Value	As % of 99 Total	1988 Export Value	Export Growth 1988-1999	% of Total Growth 1988-1999	% U.S. Share 1999	% U.S. Share 1988
27) Mineral fuels, oils	959	11.9	111	848	16.5	100.0	100.0
87) Vehicles, parts	773	9.6	196	577	11.2	97.7	96.1
10) Cereals	542	6.7	666	-124	-2.4	23.1	3.8
12) Oil seeds, misc. grains	523	6.5	238	285	5.5	19.4	21.2
88) Aircraft, spacecraft, and parts thereof	507	6.3	89	418	8.2	99.3	96.7
84) Machinery, boilers, mech. appliances	490	6.1	359	131	2.5	91.6	88.4
01) Live animals	363	4.5	93	270	5.3	100.0	99.8
44) Wood and articles of wood	361	4.5	52	309	6.0	97.9	9.2
74) Copper and articles thereof	346	4.3	5	341	6.6	99.9	91.7
94) Furniture; bedding	286	3.6	33	253	4.9	96.7	98.1
48) Paper and paperboard	240	3.0	109	131	2.6	91.9	96.1
02) Meat and edible meat offal	228	2.8	73	155	3.0	52.0	86.7
39) Plastics and articles thereof	211	2.6	51	160	3.1	98.1	93.0
85) Electrical equipment	199	2.5	63	136	2.6	97.4	94.3
15) Animal/veg fats & oils	164	2.0	81	83	1.6	83.8	57.1
30) Pharmaceutical products	149	1.9	54	95	1.9	96.1	23.5
75) Nickel and articles thereof	146	1.8	38	108	2.1	9.6	83.6
20) Processed vegetables, fruits, nuts	144	1.8	12	132	2.6	99.8	25.7
07) Edible vegetables, roots	122	1.5	53	69	1.3	19.7	9.3
62) Apparel and clothing accessories	110	1.4	9	101	2.0	99.9	97.2
Total top twenty	**6,861**	**85.3**	**2,385**				
Growth top twenty				**4,476**	**87.3**		
U.S. share top twenty						**80.8**	**54.6**
All other exports	**1,178**	**14.7**	**524**				
Growth of all other exports				**654**	**12.7**		
Total exports	**8,039**	**100.0**	**2,909**				
Total export growth				**5,130**	**100.0**		
U.S. share of total exports						**81.8**	**58.1**

Source: TIERS, CTA and the Western Centre for Economic Research

SASKATCHEWAN TOP 20 EXPORTS

Table 2.5, showing the Saskatchewan experience, reveals that in 1999 the top 3 exports—cereals, energy and potash—accounted for three-quarters of total shipments, and the top five exports for almost four-fifths of total shipments. The top 20 exports brought about 94.0% of the export growth during the period. Though U.S. market share has grown from 33.3% to 55.6% since 1988, Saskatchewan remains, in an aggregate sense, the western province least dependent on that market.

Table 2.5. Saskatchewan's Top Twenty Exports and Their Share in Export Growth ($Millions)

HS CATEGORY	1999 Export Value	As % of 1999 Total	1988 Export Value	Export Growth 1988-1999	% of Total Growth 1988-1999	%U.S. Share 1999	%U.S. Share 1988
10) Cereals	2,301	23.1	2,877	-576	-13.7	17.7	2.3
31) Fertilizers	2,151	21.6	1,169	982	23.3	58.8	53
27) Mineral fuels, oils	1,768	17.7	729	1,039	24.7	100.0	100
12) Oil seeds, miscell. grains	802	8.0	337	465	11.1	13.6	6.4
07) Edible vegetables, roots	426	4.3	15	411	9.8	3.2	14.6
90) Optical and photo equipment	289	2.9	4	285	6.8	99.0	75.1
44) Wood and articles of wood	272	2.7	24	248	5.9	99.8	99.1
47) Pulp of wood	272	2.7	176	96	2.3	36.9	54.3
84) Machinery, boilers, mech. appliances	214	2.1	53	161	3.8	89.5	90.2
48) Paper & paperboard	190	1.9	19	171	4.1	100.0	99.4
28) Inorganic chemicals	175	1.8	78	97	2.3	51.9	92
01) Live animals	156	1.6	45	111	2.6	99.1	98.5
15) Animal and vegetable fats & oils	142	1.4	12	130	3.1	91.8	27.4
02) Meat and edible meat offal.	116	1.2	57	59	1.4	91.6	93.3
11) Products of milling industry	91	0.9	10	81	1.9	18.9	41.5
85) Electrical equipment	82	0.8	22	60	1.4	81.1	93.3
72) Iron and steel	57	0.6	59	-2	0.0	99.9	99.6
87) Vehicles, parts	53	0.5	12	41	1.0	98.0	98.7
23) Residues & waste from the food industry	53	0.5	3	50	1.2	84.6	20.9
38) Miscellaneous chemical products	52	0.5	11	41	1.0	96.4	95.6
Total top twenty	**9,662**	**97.0**	**5,712**				
Growth top twenty				**3,950**	**94.0**		
U.S. share top twenty						**55.6**	**33.3**
All other exports	**302**	**3.0**	**48**				
Growth of all other exports				**254**	**6.0**		
Total exports	**9,964**	**100.0**	**5,760**				
Total export growth				**4,204**	**100.0**		
U.S. share of total exports						**56.6**	**33.8**

Source: TIERS, CTA and the Western Centre for Economic Research

3. ALBERTA: SELECTED 1999 EXPORT HIGHLIGHTS

ENERGY AND PLASTICS EXPORTS

Table 3.1 shows that the value of 1999 commodity exports from the energy sector increased by 16.9% over the levels of the previous year. Natural gas exports rose in value by more than 18%, while crude oil exports rose in value by 15.1%, and coal improved by a respectable 9%. The gains in crude oil can be accounted for by a rise in the crude oil price index of 54%, implying that the crude oil exports decreased in volume but their value was buoyed by the massive increase in price. Natural gas prices rose by 17%, indicating a slight increase in export volumes.

The value of polyethylene exports rose by almost 25% accounting almost entirely for the increase of 20% in the HS 39 Plastics group.

Table 3.1. Exports of Energy and Plastics: Selected Categories, 1998 and 1999 ($Millions)

HS Category		98 export value	99 export value	% change 98-99
2701	Natural gas	8,618.1	10,189.3	18.2%
2709	Crude oil	6,714.3	7,726.1	15.1%
2711	Coal	543.6	592.4	9.0%
Total of the above		**15,876.1**	**18,507.8**	**16.6%**
Total HS 27 exports	**Energy**	**16,212.3**	**18,945.9**	**16.9%**
3901	Polyethylene	503.7	625.9	24.3%
3917	Tubes, pipes & hoses	37.6	48.8	30.0%
3904	Polyvinyl	47.8	43.4	-9.2%
3920	Plastic plates	45.2	41.9	-7.2%
3923	Plastic packing	24.7	33.9	37.4%
Total of the above		**658.9**	**794.0**	**20.5%**
Total of HS 39 exports	**Plastics**	**713.5**	**859.8**	**20.5%**

Source: TIERS/CTA and the Western Centre for Economic Research

WOOD, PULP AND PAPER PRODUCTS

Table 3.2 contains data for 1999 and comparisons with 1998 for export values of wood, pulp and paper products. It reveals improved export results for the forest products industry in 1999. Shipments of wood products rose by 28% in 1999, a result of price and volume increases. Wood pulp shipments increased in both value and in volume.

The fall in paper and paperboard shipments was accounted for by price weakness.

Table 3.2. Exports of Wood, Pulp and Paper: Selected Categories, 1998 and 1999 ($Millions)

HS Category		98 export value	99 export value	% change 98-99
4407	Sawn lumber	660.4	826.9	25.2%
4410	Particle board	348.5	468.2	34.3%
Total of the above		**1,008.9**	**1,295.1**	**28.4%**
Total HS 44 exports	**Wood**	**1,159.3**	**1,505.4**	**29.9%**
	Chemical wood pulp	973.6	1,055.8	8.4%
	Semi-chemical wood pulp	211.6	241.4	14.1%
Total of the above		**1,185.2**	**1,297.2**	**9.4%**
Total HS 47 exports	**Pulp**	**1,195.2**	**1,308.1**	**9.4%**
Total HS 48 exports	**Paper and Paperboard**	**222.3**	**215.1**	**-3.2%**

Source: TIERS/CTA and the Western Centre for Economic Research

MEAT PRODUCTS

Table 3.3, showing export values for meat products in 1998 and 1998, records another large jump in exports of processed meats. Beef exports increased in value by some 31.4%, and accounted almost entirely for the increased volume of shipments. Overall, the value of meat shipments increased rapidly during the decade from a value of $221 million in 1991 to $1,389 million in 1999. This growth has resulted in meat becoming Alberta's fourth largest HS two digit category export. Better access to the U.S. market under first the FTA and then NAFTA has made a large contribution to this development.

Table 3.3. Exports of Meat Products: Selected Categories, 1998 and 1999 ($Millions)

HS Category		98 export value	99 export value	% change 98-99
0201	Beef	788.8	1,036.5	31.4%
0206	Pork	89.2	104.4	17.1%
0203	Edible livestock offal	83.2	103.5	24.4%
Total of the above		**961.2**	**1,244.4**	**29.5%**
Total HS 02 exports	**Meat Products**	**1,095.4**	**1,389.2**	**26.8%**

Source: TIERS/CTA and the Western Centre for Economic Research

VEGETABLES AND OILSEEDS

Table 3.4 summarises the 1999 export record of selected oilseed and vegetable product exports. Shipments of vegetable products declined in 1999, led by a fall of 13.5% in dried legumes. Potato shipments rose slightly.

Oilseed exports declined by more than one fifth. This was driven by a 22% decline in the value of canola shipments which can be accounted for by both price weakness and reduced shipment volumes.

Table 3.4. Exports of Vegetables and Oilseeds: Selected Categories, 1998 and 1999 ($Millions)

HS Category		98 export value	99 export value	% change 98-99
0713	Legumes dried, shelled or split	94.6	81.9	-13.5%
0701	Potatoes	26.2	27.3	4.1%
Total of the above		**120.8**	**109.1**	**-9.7%**
Total HS 07 exports	**Vegetable Products**	**123.2**	**112.4**	**-8.8%**
1205	Canola	495.2	385.6	-22.1%
1209	Sowing seeds	46.7	43.7	-6.4%
1207	Other seed	15.2	12.5	-17.6%
1204	Linseed	8.0	4.8	-40.2%
Total of the above		**565.2**	**446.6**	**-21.0%**
Total HS 12 exports	**Oilseeds**	**664.1**	**527.5**	**-20.6%**

Source: TIERS/CTA and the Western Centre for Economic Research

MACHINERY AND MECHANICAL APPLIANCES

Table 3.5 shows that, in 1999, the value of Alberta exports of machinery (HS 84) declined markedly from 1998. Moving, grading and boring machinery, along with parts for lifting and moving machinery, suffered the worst decline but overall, HS 84 exports decreased from their 1998 levels by 15.4%. The top ten HS 84 commodities at the 4-digit level in terms of export value experienced a 22.7% decline in export value. The remaining commodities, on the contrary, showed an the aggregate increase of 11.6% in 1999 over 1998. The U.S. market share of HS 84 exports in 1999 was 68.6%, or slightly higher than in 1998 (62.2%).

Table 3.5. Exports of Machinery and Mechanical Appliances: Selected Categories, 1998 and 1999 ($Millions)

HS Category		98 export value	99 export value	% change 98-99
8431	Parts for lift, move mach.	220.7	133.2	-39.6%
8411	Turbo-jets and other gas turbines	22.3	109.9	393.4%
8479	Special mach., appliances	98.9	73.9	-25.3%
8419	Electric dryers and distillers	86.4	72.4	-16.2%
8481	Taps, valves for pipes	91.7	70.5	-23.1%
8412	Engines and motors	72.7	64.2	-11.6%
8471	Automatic data process machinery	42.6	47.4	11.4%
8414	Air or vacuum pumps	81.4	33.7	-58.6%
8430	Moving or grading machinery	75.0	33.2	-55.8%
8413	Pumps and liquid elevators	77.4	33.1	-57.2%
Total of the above		**869.2**	**671.6**	**-22.7%**
Rest of HS 84 exports		**233.92**	**261.16**	**11.6%**
Total HS 84 exports	**Machinery & Appliances**	**1,103.1**	**932.8**	**-15.4%**

Source: TIERS/CTA and the Western Centre for Economic Research

The type of equipment and machinery, growth of which exceeded 100% in 1999 over 1998, were construction machinery, machine-tools for removal of material by laser, photon beam, or plasma processes, agricultural and food processing machinery, printing equipment, calculation machines, washing and cleaning machinery, machinery for the leather and furniture sewing, engines, etc.

ELECTRICAL EQUIPMENT

This group has recorded extremely high rates of export growth since 1988, and now ranks second in the HS two digit hierarchy of Alberta export values. As Table 3.6 reveals there was a substantial export increase of 34.0% in 1999 over 1998 levels. This increase was accounted for entirely by changes in the volume of sales rather than by changes in price.

Exports of telephone sets and related equipment accounted for one quarter of the exports in HS 85 while shipments of transmission equipment for radio and TV accounted for almost half of the 1999 total. The big story in 1999 was the software sector where shipments rose to $36 million, an increase of 136.7% over 1998.

This is an industry which has clearly benefited from the two free trade agreements. In 1988 the U.S. market share was 64.9% of $113 million while in 1999 it was 88.8% of $2.141 billion in export values.

Table 3.6. Exports of Electrical Equipment: Selected Categories, 1998 and 1999 ($ Millions)

HS Category		98 export value	99 export value	% change 98-99
8525	Transmission equipment radio/TV	828.1	1,108.7	33.9%
8517	Telephone sets	334.1	488.0	46.1%
8529	Antennae for radio/TV	140.8	217.1	54.3%
8537	Boards and panels	42.1	49.5	17.6%
8524	Tapes, software	15.3	36.2	136.7%
8520	Telephone answering mach.	23.0	32.1	39.7%
8526	Radio navigation aids	18.7	16.9	-9.2%
Total of the above		**1,402.1**	**1,948.6**	**39.0%**
Total HS 85 exports	**Electrical Equipment**	**1,597.7**	**2,141.0**	**34.0%**

Source: TIERS/CTA and the Western Centre for Economic Research

This high value added HS class experienced decreased shipments in 1999. Table 3.7 reveals that the decline amounted to $17 million, a fall of 7.5%. Regardless, this class of export has expanded greatly since 1988, growing by $174 million, somewhat over 500%. Over the years since 1988, the U.S. market share has expanded slightly to 46.6%.

Orthopedic appliances continue to be the largest single item in terms of export value in this class with shipments amounting, in 1999, to about 29% of the class total.

Table 3.7. Exports of Optical and Measuring Equipment: Selected Categories, 1998 and 1999 ($Millions)

HS Category		98 export value	99 export value	% change 98-99
9021	Orthopedic appliances	62.3	60.1	-3.4%
9015	Geogr. measuring instruments	72.1	42.5	-41.0%
9027	Phys/chemical test equipment	24.7	24.7	-0.1%
9032	Auto control instruments	10.6	21.4	101.9%
9026	Flow check instruments	18.1	18.3	1.0%
9031	Other measuring/check. equipment	7.6	12.4	63.1%
9030	Oscilloscopes, electrical testing	7.9	5.8	-25.9%
Total of the above		**203.3**	**185.3**	**-8.8%**
Total HS 85 exports	**Optical & Measuring Equipment**	**225.0**	**208.1**	**-7.5%**

Source: TIERS/CTA and the Western Centre for Economic Research

COMMENTARY ON VALUE ADDED EXPORTS

To provide perspective, value added merchandise exports, from both the durable and non-durable manufacturing sectors, displayed rapid growth over the 1992-1997 years. Since 1997, growth has continued to be strong in the non-durable value added sectors such as processed meats, chemical and plastics.

Over the past three years in the durable sector, exports have displayed a wider performance spectrum ranging from continued sustained growth to interruptions in the growth trend. Telecommunication equipment has been the star of durable goods value added exports. In 1999, exports of this equipment resumed the high annual growth rate characteristic of the decade. Furniture (HS94), largely accounted for at the four digit level by office furniture shipments, has continued to display strong growth. The growth in these exports has been accompanied by the growth in real GDP originating in these sectors and in employment.

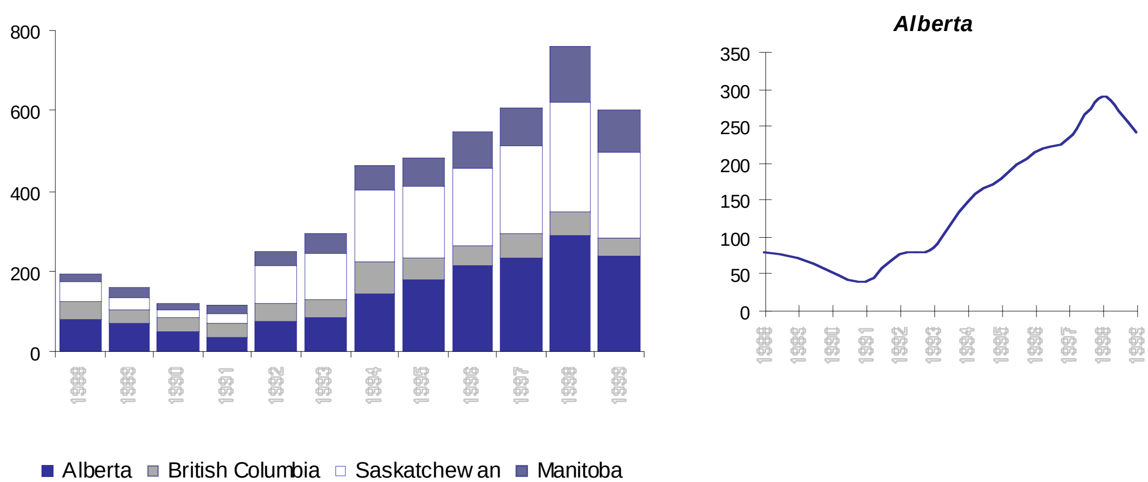
Wood product exports (HS44) grew sharply in 1999 with most of the growth occurring through the third quarter. Shipments of these products are sensitive to housing demand and sawn lumber quotas. The weakening in this sector displayed in the fourth quarter of 1999 carried through to 2000.

Exports of machinery and equipment (HS84) fell substantially in 1999 from the record levels of 1998. This fall was reflected in decreases in the value of all shipments, in employment, and in real GDP originating in the sector. The health of this sector, and the expanding export opportunities that underlie it, make up an essential element in the longer term transformation of the Alberta economy. Export declines in 1999 also occurred in the HS90 group. These exports, representing primarily a range of measuring and monitoring instruments, are products requiring high skill levels and innovative activity. They come from a sector that is a core segment of the knowledge economy. Declining export markets for these products are, therefore, of concern.

4. EXPORTS TO MEXICO

Figure 4.1 summarises the exports of each of the four western provinces to Mexico for the years from 1988 to 1999. Over this period exports from western Canada have tripled from $195 million in 1988 to $602 million in 1999, but decreased by 20.9% from their 1998 level. Three of the western provinces have shared in the increase over the years since 1988, the exception being British Columbia whose exports to Mexico have remained quite flat. The western Canadian export experience in the Mexican market was, however, substantially less favourable in 1999 than in 1998. Shipments from the region as a portion of Canadian shipments fell from 52% in 1998 to 37% last year.

Figure 4.1. Western Canada: Provincial Exports to Mexico, 1988-1999 (000's)



Source: TIERS, CTA

The Alberta share of the lower value of 1999 western Canadian shipments was 39.7%, an increase of almost 2% in market share over 1998. Table 4.1 reports the top 10 Alberta merchandise exports to Mexico in each of 1988, 1993, 1995 and 1999. In general, the profile of the top ten exports in 1999 is similar to that of previous years, contributing almost 96% to the total exports to Mexico.

Table 4.1. Top Ten Alberta Merchandise Exports to Mexico in 1988, 1993, 1995 and 1999 ($000's)

CATEGORY	**HS**	**88 Exports ($Value)**
Salt; sulphur; earth & stone	25	37,438
Oil seed, misc. grain, seed, fruit	12	21,950
Cereals	10	10,166
Live animals	1	3,177
Fertilizers	31	2,451
Meat and edible meat offal.	2	971
Animal and vegetable fats & oils	15	863
Machinery and mech. appliances	84	485
Electrical equipment	85	304
Beverages, spirits and vinegar	22	196
Sub-total of top 10 exports		**77,942**
Total Exports to Mexico (HS 01-99)		**78,411**
Mexico as percent of Alberta's total		**0.60%**
Canadian Total to Mexico		**490,460**
Percent of Canadian Total		**15.99%**

CATEGORY	**HS**	**93 Exports ($Value)**
Cereals	10	23,421
Oil seed, misc. grain, seed, fruit	12	22,300
Mineral fuels, oils	27	10,388
Dairy products; eggs; honey	4	6,994
Electrical equipment	85	6,184
Wood pulp	47	4,696
Meat and edible meat offal	2	4,670
Live animals	1	1,507
Optical and photo equipment	90	1,243
Products of milling industry	11	1,097
Sub-total of top 10 exports		**82,500**
Total Exports to Mexico (HS 01-99)		**83,573**
Mexico as percent of Alberta's total		**0.42%**
Canadian Total to Mexico		**798,793**
Percent of Canadian Total		**10.46%**

CATEGORY	**HS**	**95 Exports ($Value)**
Oil seed, misc. grain, seed, fruit	12	64,074
Cereals	10	30,814
Dairy products; eggs; honey	4	24,535
Salt; sulphur; earth and stone; plaster	25	13,273
Mineral fuels, oils, prod of distillates	27	12,832
Pulp of wood; cellulosic mat; waste	47	12,520
Animal/vegetable fats, oils	15	4,513
Fertilizers	31	3,192
Plastics and articles thereof	39	2,964
Elec mchy equip parts; sound recorders	85	2,245
Sub-total of top 10 exports		**170,962**
Total Exports to Mexico (HS 01-99)		**176,923**
Mexico as percent of Alberta's total		**0.66%**
Canadian Total to Mexico		**1,160,608**
Percent of Canadian total		**15.24%**

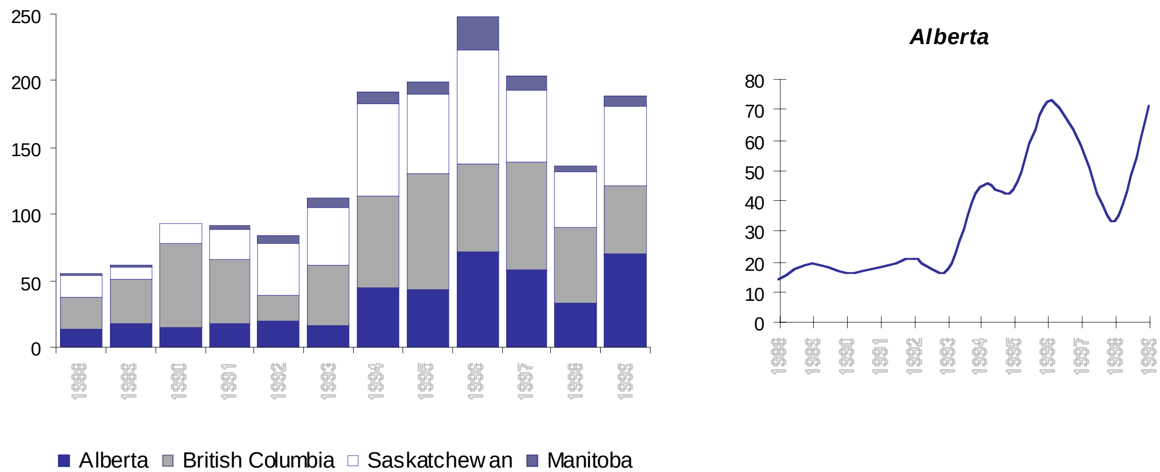
CATEGORY	**HS**	**99 Exports ($Value)**
Oil seed, misc. grain, seed, fruit	12	55,877
Cereals	10	47,253
Meat and edible meat offal	2	42,853
Machinery, boilers, mech appl.	85	24,390
Salt; sulphur; earth and stone; plaster	25	21,345
Pulp of wood; cellulosic mat; waste	47	11,355
Dairy products; eggs; honey	4	10,052
Machinery and mech. appliances	84	5,973
Plastics and articles thereof	39	5,878
Product mill ind; malt; starches; gluten	11	4,692
Sub-total of top 10 exports		**229,667**
Total Exports to Mexico (HS 01-99)		**239,327**
Mexico as percent of Alberta's total		**0.69%**
Canadian Total to Mexico		**1,626,269**
Percent of Canadian Total		**14.72%**

Source: TIERS, CTA

5. EXPORTS TO CHILE

Figure 5.1 depicts the value of exports to Chile from the four western provinces during the 1998-1999 period. Alberta ranked first among the provinces in 1999 with shipments of $70.9 million, mostly petroleum and grains.

Figure 5.1. Western Canada: Provincial Exports to Chile, 1988-1999 ($Millions)



Source: TIERS, CTA

Saskatchewan shipped $59.9 million, mostly grain, but also some fertiliser and edible vegetables. British Columbia exports to Chile were $50.2 million with the top three products being paper, petroleum and machinery. Manitoba had small shipments of $7 million entirely in agricultural products.

Figure 5.1 also reveals the sharp rise in Alberta exports to this market in 1999 which restored shipments to their 1996 and 1997 levels.

Table 5.1 presents the top ten Alberta merchandise exports to Chile in each of the reported years. The 1999 export value reported fivefold growth in comparison to 1988. It almost doubled during the last 5 years of 1995-1999. Chile's share of Alberta's total exports has increased from 0.1% in 1988 to 0.2% in 1999. Alberta's share in total Canadian exports to Chile doubled from 9.63% in 1988 to 19.9% in 1999.

Table 5.1. Top Ten Alberta Merchandise Exports to Chile in 1988, 1993, 1995 and 1999 ($000's)

CATEGORY	HS	88 Exports ($Value)
Salt; sulphur; earth & stone	25	9,036
Fertilizers	31	1,478
Electrical mchy equip parts thereof	85	1,453
Machinery, boilers, mechanical appl.	84	434
Vehicles o/t railw/tramw roll-stock	87	387
Articles of iron or steel	73	355
Optical, photo, cine, meas	90	207
Inorgn chem; compds of prec met, etc.	28	58
Products of animal origin	5	41
Live animals	1	23
Sub-total of top 10 exports		**13,473**
Total Exports to Chile (HS 01-99)		**13,583**
Chile as percent of Alberta's total		**0.10%**
Canadian Total to Chile		**141,063**
Percent of Canadian Total		**9.63%**

CATEGORY	HS	93 Exports ($Value)
Cereals	10	9,031
Mineral fuels, oils & product of distil.	27	3,827
Machinery, boilers, mechanical appl.	84	2,340
Electrical mchy equip parts thereof	85	699
Salt; sulphur; earth & stone	25	606
Meat and edible meat offal	2	88
Optical, photo, cine, meas	90	79
Inorgn chem; compds of prec met, etc.	28	63
Vehicles o/t railw/tramw roll-stock	87	46
Products of animal origin	5	46
Sub-total of top 10 exports		**16,823**
Total Exports to Chile (HS 01-99)		**16,924**
Chile as percent of Alberta's total		**0.09%**
Canadian Total to Chile		**212,895**
Percent of Canadian Total		**7.95%**

CATEGORY	HS	95 Exports ($Value)
Cereals	10	12,549
Mineral fuels, oils, prod of distillates	27	8,160
Salt; sulphur; earth and stone; plaster	25	7,869
Fertilisers	31	4,465
Nuclear reactors, boilers, appliances	84	2,800
Plastics and articles thereof	39	2,218
Elec mchy equip parts; sound recorders	85	2,1725
Articles of iron or steel	73	589
Furniture; bedding, mattress	94	576
Wood and articles of wood	44	455
Sub-total of top 10 exports		**41,859**
Total Exports to Chile (HS 01-99)		**43,550**
Chile as percent of Alberta's total		**0.16%**
Canadian Total to Chile		**387,486**
Percent of Canadian total		**11.2%**

CATEGORY	HS	99 Exports ($Value)
Mineral fuels, oils & product of distil.	27	37,795
Cereals	10	12,288
Electrical mchy equip parts thereof	85	4,651
Plastics and articles thereof	39	4,176
Salt; sulphur; earth & stone	25	3,356
Machinery, boilers, mechanical appl.	84	3,123
Ships, boats and floating structures	89	1,301
Furniture; bedding, mattress, etc.	94	979
Optical, photo, cine, meas	90	909
Fertilizers	31	825
Sub-total of top 10 exports		**69,404**
Total Exports to Chile (HS 01-99)		**70,668**
Chile as percent of Alberta's total		**0.20%**
Canadian Total to Chile		**355,394**
Percent of Canadian Total		**19.9%**

Source: TIERS, CTA

CONCLUSION

Alberta's economy continues to benefit from export-led growth, and the existing free trade agreements continue to prove that open markets benefit Alberta's sophisticated, competitive economy. Greater access to the American market remains the most important dynamic driving force of Alberta's export performance. In 1999, Alberta exported over $268 of merchandise for every $100 shipped in 1988. The FTA and NAFTA have provided a market oriented and competitive atmosphere for Alberta manufacturers and, as a result, the value-added content of provincial exports has risen. The broadening of commercial ties between the province, the region, and the globe has helped Albertans better realize their export potential.

LIST OF TABLES

LIST OF FIGURES

References

1. Canadian Trade Analyser, Statistics Canada
2. TIERS, Statistics Canada
3. CANSIM, Statistics Canada
4. Labour Force Survey, Statistics Canada