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## THE ALBERTA AND WESTERN CANADIAN EXPORT EXPERIENCE: 1988-96

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### **EXECUTIVE SUMMARY**

- (1) Over the 1988-96 period, Alberta merchandise exports to all foreign countries rose by \$17.75 billion, an increase of 140%. This growth was, by a substantial margin, the strongest and most sustained of the western provinces. Of this growth, \$15.80 billion resulted from increased sales to the U.S. market.
- (2) Alberta's global exports in 1996 rose by 16% over 1995 and now account for just over 43% of total western Canadian exports.
- (3) In Alberta, the top five export categories (energy, cereals, electrical equipment, organic chemicals, and plastics) accounted for 73% of the value of all exports in 1996. The next top fifteen export categories account for an additional 22% of export values. Data for Alberta, the other provinces and for the region is found in Tables 2 through 6 of this report.

- (4) Slightly more than three-fifths of the growth in total exports between 1988 and 1996 was directly attributable to the energy industry. The next largest contributor was electrical equipment (6.3%). The exports of this sector reached \$1.231 billion in 1996.
- (5) Greater access to the U.S. market for all provinces has been important to export growth. U.S. market share increased for the top twenty exports of each province. More than four-fifths of Alberta's top twenty exports now go to the U.S. market compared with some 70% in 1988.
- (6) Crude oil and gas exports combined accounted for \$16.755 billion in export value in 1996, an increase of about 20% over 1995. U.S. market share rose from 93.0% in 1988 to 96.9% in 1996.
- (7) Exports of wood, pulp and paper products displayed mixed results in 1996. Exports of wood products rose by 87%, paper and paperboard products tripled, while the value of woodpulp exports— due largely to price weakness— fell by two-fifths. To some degree the increase in lumber exports reflects the more accurate accounting brought about by the U.S.–Canada softwood lumber agreement. U.S. market share declined between 1988 and 1996 for sawn lumber and woodpulp but increased for paper and paperboard products.
- (8) Meat product exports rose by one-quarter and their value reached \$739 million. U.S. market share rose from 67.9% in 1988 to 80.6% in 1996.
- (9) Machinery and parts exports rose by more than one-third to reach \$682 million. All major categories recorded increases. U.S. market share increased from 54.6% in 1988 to 61.0% in 1996.
- (10) Exports of electrical equipment and parts (mostly telecommunications equipment) increased by 56%. Taken with 1995 performance, export values have doubled in the past two years. U.S. market share rose from 64.9% in 1988 to 81.7% in 1996.
- (11) The optical, measuring and precision instruments sector (HS 90) continued to grow with the value of shipments expanding by 11% in 1996. U.S. market share declined from 40.5% in 1988 to 37.6% in 1996.
- (12) Alberta exports to Mexico rose by 12.6% in 1996. Mexico remains a small market for Alberta merchandise exports. An important new development, however, is the emergence of Mexico as an identifiable market for Alberta-produced telecommunications equipment.

- (13) Alberta exports to Chile are small but growing. Alberta's investment there may help induce subsequent exports.

## **AN EXPORT OVERVIEW: ALBERTA AND WESTERN CANADA 1988-96**

It has been over eight years since the FTA was implemented. Sufficient time has now elapsed to gain perspective on the export performance of western Canada as a whole, and of the comparative experience of the four western provinces. Previous reports from the WCER have focused on Alberta and Western Canada's export experience under the FTA/NAFTA. This year's report focuses on the global export experience, which has been strongly influenced by the trade agreements; over the years, greater access to the competitive U.S. market has provided western Canadian firms with a wealth of expertise and confidence, two qualities which are currently helping them penetrate other foreign markets.

In this report we will summarize the experience of the last year and draw some comparisons respecting provincial export performance since 1988. We will also look at the top twenty exports (1996 ranking) for Alberta, the three other western provinces, and the region as a whole. The growth in the top twenty merchandise exports, their individual contribution to the value of global exports, and their U.S. market share over the 1988-1996 period is also reported. There follows sections on the performance of selected major Alberta export sectors. The report concludes with an overview of merchandise exports to the Mexican market. Appendix I contains a listing of 98 HS export categories for each of the provinces ranked in descending order by their 1996 export value.

Note that the report relates to merchandise exports alone and does not provide data or comment on the export of services.

## **GROWTH IN EXPORT VALUES FOR WESTERN CANADA AND THE PROVINCES: 1988-96**

Table 1 shows the growth in the dollar value of exports for western Canada and for each of the four provinces between 1988 and 1996. Over this period the value of Alberta merchandise exports to foreign countries rose from a total of \$13.008 billion to \$30.783 billion. In 1996 western Canada's exports rose by \$3.18 billion or by 4.7%. This compares with a growth in Alberta merchandise export values of \$4.24 billion, or 16.0%. Thus, the growth in Alberta exports exceeded the growth in exports of the region as a whole. Regional growth was retarded by the relatively sharp decline in British Columbia exports during the year.

Figure 1 reveals Alberta's share of total western Canadian merchandise exports over the entire period. At the beginning of the period in 1988, Alberta exports accounted for exactly one-third of the region's exports. The share rose quite steadily, paused in 1994 and 1995, and then rose again to reach 43.4% in 1996. Effectively, for every \$100 shipped to foreign countries from western Canada, just over \$43 originated in the province of Alberta. Another way of looking at the record is that over the period from 1988 to 1996, western Canadian exports rose by some \$30.76 billion. Alberta accounted for a full 56% of the increase in dollar terms or about \$17.75 billion.

Figure 2 contains a picture of annual exports by province converted to an index basis in order to allow an easy comparison of export growth rates. Merchandise export values in 1988 are set at 100 for each province. The Alberta index in 1996 stood at 236.6, higher by a substantial margin than the index values for Manitoba (205.3), Saskatchewan (154.5) and British Columbia (144.7). The annual index for Alberta has exceeded that for the other provinces throughout the period.

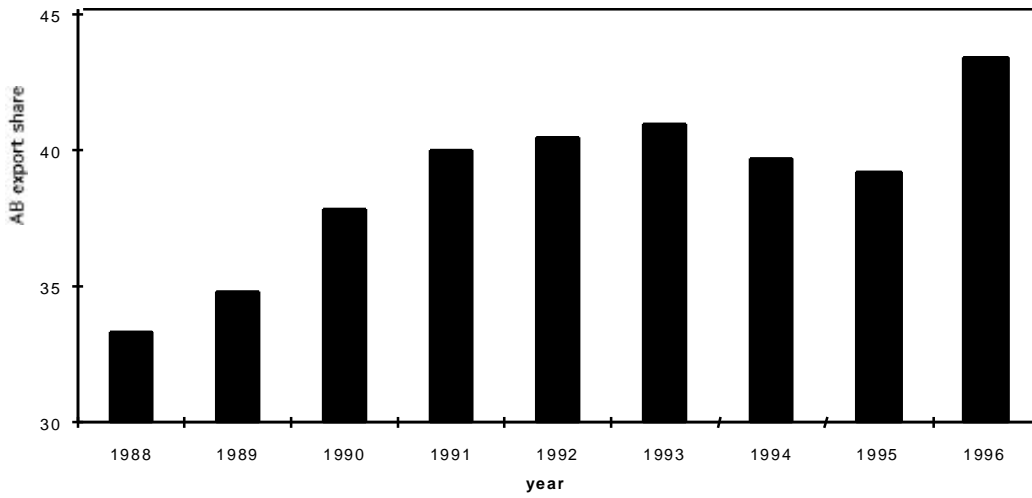
**Table 1**

**Dollar value of merchandise exports, western Canada and the four provinces, 1988-96**  
(values in \$billions)

<b>Year</b>	<b>Alberta</b>	<b>B.C.</b>	<b>Sask</b>	<b>Manitoba</b>	<b>West Can</b>
1988	13.008	17.419	5.767	2.916	39.110
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

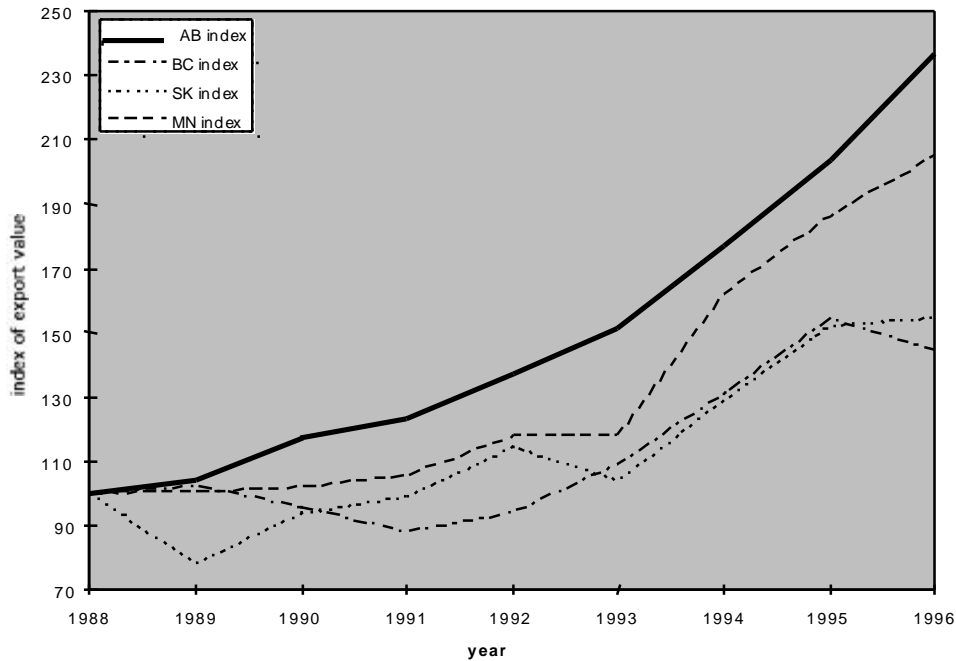
Source: TIERS and Western Centre for Economic Research

**Figure 1**  
**Alberta's Exports as a % of Western Canada's,**  
**1988-96**



Source: Source: Western Centre for Economic Research

**Figure 2**  
**Index of Export Value by Province, 1988-96**  
 (1988=100)



Source: Western Centre for Economic Research

## WESTERN CANADA'S 20 TOP EXPORTS: THEIR CONTRIBUTION TO EXPORT GROWTH

It is a well known fact that in three provinces— Alberta, British Columbia and Saskatchewan— total merchandise exports are dominated by the energy, forestry and agricultural industries, respectively. The importance of this relatively high degree of provincial specialization is evident from Table 2. In the table, the contribution of the top 20 merchandise exports in western Canada (ordered by 1996 HS value) is displayed, together with their share of regional exports in 1996, their contribution to the growth in export values between 1988 and 1996, as well as their U.S. market shares. Note that Manitoba's exports are more diversified in the proportionate share accounted for by each of the major exports.

Table 2 reveals that 63.7% of the total value of western Canadian merchandise exports in 1996 was accounted for by the first five rank order HS two digit categories. Another 25.8% were accounted for by the next fifteen. For the region, just over 10% of 1996 exports were recorded in all other HS classes. If the growth in exports between 1988 and 1996 is considered, then the top twenty in 1996 accounted for 89.4% of the total, and the top five— energy, sawn lumber, cereals, woodpulp and paper— accounted for some 61.7% of the growth with energy alone making up almost 41% of the total increase.

**Table 2. Western Canada's top twenty exports and their share in export growth**  
(values in \$millions)

HS Category	96 Exp Value	As % of Total Exp	88 Exp Value	\$ Growth	% Growth share	% U.S. Share	
						1996	1988
(27) Mineral fuels, oils	22,821	32.2	9,810	13,011	41.0	90.9	80.1
(44) Sawn lumber	10,381	14.7	5,256	5,125	16.1	65.6	59.3
(10) Cereals	4,696	6.6	4,829	(133)	(0.4)	16.0	3.2
(47) Woodpulp	4,422	6.2	3,933	489	1.5	33.4	31.8
(48) Paper and paperboard	2,778	3.9	1,673	1,105	3.5	68.8	68.5
(84) Machinery, engines	2,174	3.1	960	1,214	3.8	72.3	77.3
(85) Electrical equipment	1,928	2.7	276	1,652	5.2	78.5	75.7
(31) Fertilizers	1,811	2.6	1,429	382	1.2	64.6	55.4
(12) Oilseeds, misc. grains	1,635	2.3	995	640	2.0	18.2	9.8
(01) Live animals	1,476	2.1	448	1,028	3.2	99.9	98.9
(29) Organic chemicals	1,429	2.0	1,036	393	1.2	52.7	44.4
(39) Plastics	1,362	1.9	723	639	2.0	82.5	65.4
(87) Vehicles, parts	1,259	1.8	514	745	2.3	89.5	87.4
(02) Meats	954	1.3	324	630	2.0	76.8	75.9

(94) Furniture	780	1.1	124	656	2.1	67.6	81.5
(03) Fish	779	1.1	619	160	0.5	43.6	27.6
(28) Inorganic chemicals	755	1.1	244	511	1.6	78.9	84.4
(26) Ores, slag, ash	694	1.0	1,035	(341)	(1.1)	5.6	1.3
(76) Aluminum	688	1.0	629	59	0.2	24.3	20.5
(07) Edible vegetables, roots	561	0.8	138	423	1.3	20.5	14.5
<b>Total top twenty</b>	<b>63,383</b>	<b>89.4</b>	<b>Growth of top twenty</b>	<b>28,388</b>	<b>89.4</b>	<b>Top 68.1 Twenty</b>	<b>51.7</b>
<b>All other exports</b>	<b>7,476</b>	<b>10.6</b>	<b>Growth all other exports</b>	<b>3,376</b>	<b>10.6</b>		
<b>Total Exports</b>	<b>70,859</b>		<b>Total export growth</b>	<b>31,764</b>		<b>Total Exports 67.6</b>	<b>51.5</b>

Source: TIERS and the Western Centre for Economic Research

## ALBERTA'S TOP TWENTY EXPORTS: THEIR CONTRIBUTION TO EXPORT GROWTH

Table 3 shows Alberta's top twenty exports rank ordered by 1996 export value, together with their contribution to the dollar value of export growth over the period from 1988 to 1996. The top five export categories accounted for some 73.2% of total export values, and the remaining fifteen for 21.6% of 1996 export values. All other HS categories amounted to the other 5% of export values. Apart from energy (crude oil, natural gas and coal), whose dominance is striking, the most notable feature of the Alberta table is the rise in the importance of HS 85 (communications equipment and parts) to third place in the value rank of provincial exports. The growth in the top twenty exports accounted for some 94% of the growth in total exports with the energy industry bringing about more than three-fifths of total growth.

Alberta's U.S. market share increased for 11 of the top 20 exports when 1988 (the year prior to the introduction of the FTA) is compared to 1996. The most striking rise appears in the cereals (HS 10), electrical equipment (HS 85) and plastics (HS 39) categories. Not surprisingly, these three sectors are also three of the top five exports from Alberta in terms of value. Within the top twenty, the most notable declines in U.S. market share were posted by nickel (HS 75) and pulp (HS 47) categories. Nickel is shipped primarily to Europe while woodpulp exports are tied to Japanese companies working within the province.

**Table 3**  
**Alberta's top twenty exports and their share in export growth**  
**(values in \$millions)**

HS Category	96 Exp Value	As % of Total Exp	88 Exp Value	\$ Growth	% Growth Share	% U.S. Share	
						1996	1988
(27) Mineral fuels, oils	17,733	57.61	6,874	10,859	61.09	96.9	93.0
(10) Cereals	1,362	4.42	1,251	111	0.62	17.9	4.8
(85) Electrical equip, parts	1,231	4.00	113	1,118	6.29	81.7	64.9
(29) Organic Chemicals	1,120	3.64	892	228	1.28	48.0	45.1
(39) Plastics	1,100	3.57	622	478	2.69	79.2	61.8
(44) Wood, sawn lumber	960	3.12	229	731	4.11	81.5	92.4
(01) Live animals	831	2.70	282	549	3.09	99.8	98.4
(47) Woodpulp	802	2.61	385	417	2.35	27.3	94.9
(02) Processed meats	739	2.40	158	581	3.27	80.6	67.9
(84) Machinery, boilers, eng	682	2.22	172	510	2.87	61.0	54.6
(12) Oilseeds, misc. grains	500	1.62	296	204	1.15	18.2	8.8
(25) Sulphur	354	1.15	803	(449)	-2.53	23.0	13.2
(75) Nickel	312	1.01	21	291	1.64	3.9	43.3
(31) Fertilizers	291	0.95	196	95	0.53	85.9	62.2
(28) Inorganic chemicals	263	0.85	94	169	0.95	74.9	89.2
(94) Furniture	231	0.75	33	198	1.11	82.9	83.3
(48) Paper and paperboard	183	0.59	8	175	0.98	99.6	96.9
(88) Aircraft and parts	178	0.58	19	159	0.89	9.8	38.7
(90) Optical/photo/instrum	171	0.56	34	137	0.77	37.6	40.5
(81) Other base metals/artic	154	0.50	7	147	0.83	9.8	17.8
<b>Total of the top twenty</b>	<b>29,197</b>	<b>94.85</b>	<b>Growth of top twenty</b>	<b>16,708</b>	<b>94.00</b>	<b>Top 81.5</b>	<b>55.6</b>
<b>All other exports</b>	<b>1,586</b>	<b>5.15</b>	<b>Growth all other</b>	<b>1,067</b>	<b>6.00</b>		

			<b>exports</b>				
<b>Total Exports</b>	<b>30,783</b>		<b>Total export growth</b>	<b>17,775</b>		<b>Total 80.7 Exports</b>	<b>69.5</b>

Source: TIERS and Western Centre for Economic Research

## **TOP TWENTY EXPORTS OF THE OTHER THREE PROVINCES: THEIR CONTRIBUTION TO EXPORT GROWTH**

Tables 4, 5 and 6 show the top twenty exports of each of the other three provinces. As exhibited in Table 4, the top twenty exports of British Columbia amounted to 91.3% of total export values in 1996, and the top three exports (all forest product categories) equaled almost three-fifths of total shipments. About four-fifths of the growth in export values over the period occurred within the top twenty export group.

During 1996, British Columbia's U.S. market share grew significantly, from 49.6% to 54.8%. As the province least dependent on the American market, this is a noteworthy increase. Gains were made in nine of the top twenty B.C. exports. The traditionally important B.C. exports— wood products, fish and a variety of minerals— are more likely to go to the U.S. market than they were prior to the FTA. For example, both fish (HS 03) and salt/sulphur (HS 25) have nearly doubled their market share since 1988.

Table 5 reveals rather clearly how the structure of the Manitoba economy differs from that of the other three provinces. Less specialization and more diversification is evident. The top five categories accounted for 46.3% of total exports in 1996, and within that group agriculture, energy and manufacturing were all represented. Shipments from the top five brought about one-half of the growth in exports over the period.

Like the other western provinces, Manitoba's U.S. market share has climbed substantially since 1988 and the implementation of the FTA, from 58.2% to 74.7%. Its relatively well-diversified economy has strengthened U.S. market share in the following areas: sawn lumber (HS 44), vegetables (HS 07), and animal/vegetable fats and oils (HS 15).

Table 6 shows that in Saskatchewan, the top three 1996 exports (cereals, energy, and potash) accounted for slightly more than two-thirds, and the top five for almost four-fifths of total export values. The top twenty exports from the province brought about more than 95% of the export growth over the period.

Furthermore, increased oilseed and cereal shipments have helped the province achieve a 20% rise in its U.S. market share. Nine of the top twenty exports showed an increase in market share. However, only six exhibited a significant climb as the other three categories were almost exclusively shipped to the U.S. prior to the trade agreements.

**Table 4**  
**British Columbia's top twenty exports and their share in export growth**  
(values in \$millions)

HS Category	96 Exp Value	As % of Total Exp	88 Exp Value	\$ Growth	% Growth Share	% U.S. Share		
						1996	1988	
(44) Sawn lumber	9,159	36.35	4,951	4,208	54.10	63.1	57.2	
(47) Woodpulp	3,434	13.63	3,362	72	0.93	32.6	23.1	
(48) Paper and paperboard	2,269	9.01	1,538	731	9.40	63.1	66.0	
(27) Mineral fuels, oils	2,264	8.99	2,096	168	2.16	32.7	27.3	
(84) Machinery and engines	858	3.41	376	482	6.20	71.0	74.7	
(03) Fish, shellfish	740	2.94	570	170	2.19	42.1	24.6	
(26) ores, slag, ash	667	2.65	1,035	(368)	(4.73)	3.6	0.9	
(76) Aluminum	603	2.39	594	9	0.12	14.2	16.6	
(85) Electrical equipment	516	2.05	78	438	5.63	65.6	70.0	
(87) Vehicles, parts	393	1.56	264	129	1.66	75.8	82.8	
(29) Organic chemicals	308	1.22	138	(446)	(5.73)	69.5	36.8	
(79) Zinc	276	1.10	399	(123)	(1.58)	66.8	68.5	
(71) Precious stones/pearls	262	1.04	89	173	2.22	80.0	90.0	
(28) Inorganic chemicals	248	0.98	55	193	2.48	84.0	74.7	
(73) Articles of iron and steel	244	0.97	105	139	1.79	89.6	92.6	
(94) Furniture	242	0.96	54	188	2.42	48.6	71.5	
(25) Salt, sulphur, earth, stone	194	0.77	181	13	0.17	56.0	23.3	
(90) Precision instruments	160	0.63	45	115	1.48	56.6	63.2	
(39) Plastics	155	0.62	50	105	1.35	86.3	75.7	
(16) Prepared fish, meat	150	0.60	139	11	0.14	18.7	12.7	
<b>Total of the top twenty</b>	<b>23,142</b>	<b>91.84</b>	<b>Growth of top twenty</b>	<b>6,407</b>	<b>82.37</b>	<b>Top Twenty</b>	<b>52.9</b>	<b>41.8</b>
<b>All other exports</b>	<b>2,055</b>	<b>8.16</b>	<b>Growth all other exports</b>	<b>1,371</b>	<b>17.63</b>			
<b>Total Exports</b>	<b>25,197</b>		<b>Total export growth</b>	<b>7,778</b>		<b>Total Exports</b>	<b>54.8</b>	<b>42.7</b>

Source: TIERS and the Western Centre for Economic Research

**Table 5**  
**Manitoba's top twenty exports and their share in export growth**  
(values in \$millions)

HS Category	96 Exp Value	As % of Total Exp	88 Exp Value	\$ Growth	% Growth Share	% U.S. Share	
						1996	1988
(27) Mineral fuels, oils	854	14.27	111	743	24.21	100	100
(87) Vehicles, parts	719	12.01	196	523	17.04	98.5	96.1
(10) Cereals	644	7.08	666	(22)	-0.72	18.3	3.8
(12) Oilseeds, misc. grains	424	6.98	238	186	6.06	23.2	21.2
(84) Machinery, engines	418	5.95	359	59	1.92	91.4	88.4
(01) Live animals	356	3.94	93	263	8.57	100	99.8
(48) Paper and paperboard	236	3.94	109	127	4.14	88.3	96.1
(15) Animal/veg fats, oils	223	3.73	81	142	4.63	74.6	57.1
(75) Nickel	220	3.68	1	219	7.14	3.3	83.6
(88) Aircraft, parts	197	3.29	89	108	3.52	85.5	96.7
(94) Furniture`	178	2.97	33	145	4.72	94.5	98.1
(85) Electrical equipment	143	2.39	63	80	2.61	95.2	94.3
(44) Sawn lumber	135	2.26	52	83	2.70	95.9	9.2
(39) Plastics	107	1.79	51	56	1.82	93.9	93.0
(07) Edible vegetables	84	1.40	53	31	1.01	21.0	9.3
(02) Meat	83	1.39	73	10	0.33	48.5	86.7
(72) Iron and steel	79	1.32	40	39	1.27	91.0	95.9
(23) Food industry residues	76	1.27	16	60	1.96	80.7	83.5
(62) Apparel and clothing	56	0.94	9	47	1.53	99.1	97.2
(74) Copper	55	0.92	5	50	1.63	100	91.7
<b>Total of the top twenty</b>	<b>5,288</b>	<b>88.34</b>	<b>Growth of top twenty</b>	<b>2,949</b>	<b>96.09</b>	<b>Top 73.8</b>	<b>55.6</b>
<b>All other exports</b>	<b>698</b>	<b>11.66</b>	<b>Growth all other exports</b>	<b>120</b>	<b>3.91</b>		
<b>Total Exports</b>	<b>5,986</b>		<b>Total export growth</b>	<b>3,069</b>		<b>Total 74.7 Exports</b>	<b>58.2</b>

Source: TIERS and the Western Centre for Economic Research

**Table 6**  
**Saskatchewan's top twenty exports and their share in export growth**  
(values in \$millions)

HS Category	96 Exp Value	As % of Total Exp	88 Exp Value	\$ Growth	% Growth Share	% U.S. Share	
						1996	1988
(10) Cereals	2,658	29.85	2,877	(219)	-6.96	14.3	2.3
(27) Mineral fuels, oils	1,970	22.12	729	1,241	39.46	100.0	100
(31) Fertilizers	1,424	15.99	1,169	255	8.11	58.5	53.0
(12) Oilseeds, misc. grains	674	7.57	337	337	10.72	15.1	6.4
(07) edible vegetables	304	3.41	15	289	9.19	3.6	14.6
(01) Live animals	226	2.54	45	181	5.76	99.7	98.5
(84) Machinery, equipment	216	2.43	53	163	5.18	75.5	90.2
(28) Inorganic chemicals	210	2.36	78	132	4.20	86.8	92.0
(47) Woodpulp	183	2.06	176	7	0.22	46.3	54.3
(90) Precision instruments	129	1.45	4	125	3.97	90.0	75.1
(44) Sawn lumber	127	1.43	24	103	3.28	98.4	99.1
(02) Meat	104	1.17	57	47	1.49	88.5	93.3
(11) Malt, starches, gluten	91	1.02	10	81	2.58	17.0	41.5
(48) Paper and paperboard	89	1.00	19	70	2.23	99.7	99.4
(72) Iron and steel	79	0.89	59	20	0.64	99.8	99.6
(38) Misc. chemical products'	65	0.73	11	54	1.72	95.2	99.7
(15) Animal, vegetable oils	49	0.55	12	37	1.18	99.2	27.4
(23) Residues from food ind	42	0.47	3	39	1.24	30.0	20.9
(85) Electrical equipment	38	0.43	22	16	0.51	86.2	93.3
(87) Vehicles and parts	37	0.42	12	25	0.79	94.8	98.7
<b>Total of the top twenty</b>	<b>8,715</b>	<b>97.87</b>	<b>Growth of top twenty</b>	<b>3,003</b>	<b>95.48</b>	<b>Top 53.5</b>	<b>33.5</b>
<b>All other exports</b>	<b>190</b>	<b>2.13</b>	<b>Growth all other exports</b>	<b>142</b>	<b>4.52</b>		
<b>Total Exports</b>	<b>8,905</b>		<b>Total export growth</b>	<b>3,145</b>		<b>Total 53.7 Exports</b>	<b>33.9</b>

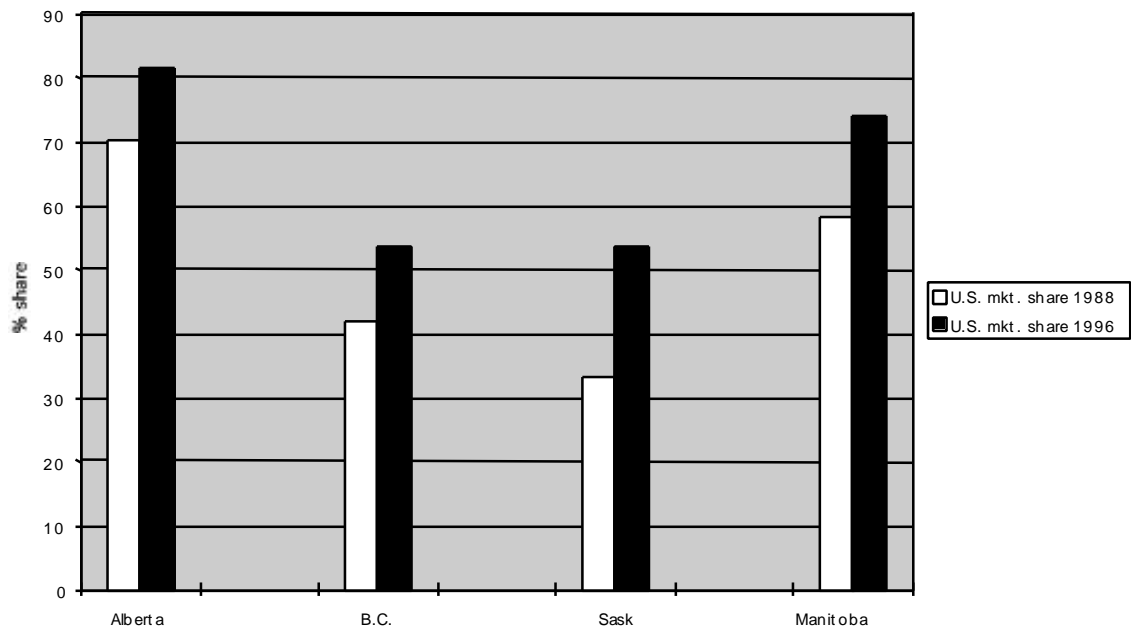
Source: TIERS and the Western Centre for Economic Research

## GREATER ACCESS TO THE U. S. MARKET

It is evident from the above facts that greater access to the American market in the case of all provinces has been important to the growth of provincial exports. Figure 3 summarizes market shares for the top twenty exports for each provinces. The increased importance of the U.S. market resulting from greatly improved access under the trade agreements is quite apparent. The U.S. as a destination for Alberta's top twenty rose from 70 to 81%. Notable increases occurred for the other provinces as well, so that in 1996, over one-half of the value of the top twenty exports in each province went to the American market.<sup>1</sup>

**Figure 3**

**US Market Share: 1988 and 1996**



Source: Western Centre for Economic Research

<sup>1</sup> Some observers have suggested that at least a portion of the increase in the U.S. market share for Canadian exports since the trade agreement came into effect is the result of transshipment to third markets using American transportation facilities. While some of this may be occurring— particularly with respect to Mexico— it is highly probable that U.S. market growth is real.

## ALBERTA: SELECTED EXPORT HIGHLIGHTS

### ENERGY AND PLASTICS EXPORTS

Table 7 shows that the value of 1996 commodity exports from the energy sector increased by 19% over levels of the previous year. Natural gas exports rose in value by more than 23% while crude oil exports rose by 18%. Coal exports declined rather sharply by more than 30%. In part, this decline in coal exports reflects a price decrease and the ability of many East Asian countries to use lower grade coal. The growth in natural gas exports during 1996 was due entirely to an increase in the average gigajoule price of approximately one-third. The increase in crude oil export values arose from a combined 5% increase in volume and 12% increase in average price. The volume of coal exports declined by more than one-third, but this was partially offset by a rise in unit price of 10%. The U.S. market share of HS 27 exports was 95.2% in 1995 and 96.9% in 1996.

The decline in polyethylene shipments, which accounts for the overwhelming share of plastic exports, reflected a 15% decline in unit price. The physical volume of exports actually rose by 7%. The U.S. market share of HS 39 exports was 84.0% in 1995 and 79.2% in 1996.

**Table 7**  
**Exports of energy and plastics: Selected Categories 1995 and 1996**  
 (values in \$millions)

HS Category	95 exp value	96 exp value	% change 95-96
2711 Natural gas	6,959.7	8,593.2	23.5
2709 Crude oil	6,899.6	8,161.9	18.3
2701 Coal	798.7	552.0	-30.9
Total of the above	14,658.0	17,307.1	18.1
Total HS 27 exports	14,903.7	17,733.1	19.0
3901 Polyethylene	1,061.20	961.9	-9.4
3903 Plastic plates, sheets	29.9	27.8	-7.0
3920 Polystyrene	36.8	19.8	-46.2
Total of the above	1,127.9	1,009.5	-10.5
Total of HS 39 exports	1,195.7	1,100.4	-7.9

Source: TIERS and the Western Centre for Economic Research

## EXPORTS OF WOOD, PULP AND PAPER PRODUCTS

Table 8 contains data for 1996 and the previous year on export values of wood, pulp and paper products. The table portrays mixed results for the forest products industry in 1996. On the positive side, 1996 exports of wood products rose sharply over 1995 levels. Sawn lumber export values exceeded those of 1995 by more than 212%, while paper shipments exceeded 1995 levels by some \$140 million, an increase of more than 300%. While there was some increase in unit price (10%) the vast majority of the growth was attributable to the increased volume of shipments. There is also evidence that the 1996 figures are a more accurate reflection of true export values as a result of the accounting systems brought about through the U.S.-Canada softwood lumber agreement. Both unit price and the volumes of particle board shipments declined.

**Table 8**  
**Exports of wood, pulp and paper: selected categories, 1995 and 1996**  
(values in \$millions)

HS Category	95 exp value	96 exp value	% change 95-96
4407 Sawn lumber	212.8	665.4	212.7
4410 Particle board	240.1	199.5	-16.9
Total of the above	452.9	864.9	91.0
Total HS 44 exports	512.8	960.3	87.3
4703 Chemical woodpulp	1,052.5	627.7	-40.4
4705 Semi-chemical pulp	285.0	162.1	-43.1
Total of the above	1,337.5	789.8	-40.9
Total HS 47 exports	1,358.1	802.0	-40.9
48 Paper and paperboard	44.9	183.1	307.8

Source: TIERS and Western Centre for Economic Research

Unit price declines of 39% brought about almost all of the fall in woodpulp export values. Increased volumes of paper and paperboard shipments (more capacity coming on stream) accounted entirely for the increase HS 48 export values despite a weakening in unit price.

The U.S. market share of HS 44 exports was 75.9% in 1995 compared to 81.5% in 1996; for HS 47 exports the U.S. share was 25.7% in 1995 and 27.3% in 1996. For HS 48 exports the 1995 U.S. market share of 99.0% compares to 99.6% in 1996.

## MEAT PRODUCTS

Table 9, showing export values for meat products in 1995 and 1996 depicts another large increase in 1996 in processed meats. Beef exports increased in value by 31%. The physical volume of exports rose 38% while unit prices averaged 5% lower in 1996. Shipments of pork products rose by 19% as a result of an 8% increase in volume and a 10% increase in unit price.

Overall, Alberta HS 02 meat shipments have increased at a rapid rate over the past five years from \$221 million in 1991 to the 1996 total of \$739 million. This growth of \$518 million compares with a growth over the same period in export values for the other three provinces combined of \$88 million. The U.S. market share of HS 02 exports was 76.5% in 1995 and 80.6% in 1996.

**Table 9**  
**Exports of meat products: selected categories, 1995 and 1996**  
(values in \$millions)

<b>HS Category</b>	<b>95 exp value</b>	<b>96 exp value</b>	<b>% Change 95/96</b>
201 Beef	316.1	414.8	31.2
203 Pork	118.1	140.5	19.0
206 Edible livestock offal	48.7	64.0	31.4
Total of the above	482.9	619.3	22.0
Total HS 02 exports	591.4	739.0	25.0

Source: TIERS and Western Centre for Economic Research

## VEGETABLE PRODUCTS AND OILSEEDS

Table 10 summarizes the 1996 export record of selected oilseed and vegetable export categories. Shipments of vegetable products continued their growth in 1996. The volume of dried legume shipments declined by 19% which was partially offset by a unit price increase of 12%. The volume and unit price of potato exports both increased in 1996— volume by 46% and price by 15%. Adverse crop yield conditions drastically affected the volume of oilseed exports. For example, the volume of canola exports declined by 29% while unit prices rose minimally by 3%. The result was a fall in 1996 export values of some 26%. The U.S. market share of HS 07 exports was 29.0% in 1995 and 37.3% in 1996, while the American share of HS 12 exports rose from 8.6% in 1995 to 18.2% in 1996.

**Table 10**  
**Exports of vegetable and oilseeds: selected categories 1995 and 1996**  
(values in \$millions)

HS Category	95 exp value	96 exp value	% change 95/96
713 Dried legumes	68.6	67.5	-1.6
701 Potatoes	12.6	21.2	68.2
Total of the above	81.2	88.7	9.2
Total HS 07 exports	82.9	91.2	10.0
1205 Canola	505.3	370.7	-26.6
1207 Other seeds	22.1	19.5	-11.8
1204 Linseed	13.5	13.2	-2.2
1209 Sowing seeds	22.5	29.3	30.2
Total of the above	563.4	432.7	-23.1
Total HS 12 exports	700.8	500.0	-28.6

Source: TIERS and Western Centre for Economic Research

## MACHINERY AND PARTS

Table 11 shows the value of Alberta exports of machinery (HS 84) and electrical equipment (HS 85) in 1995 and 1996. In the machinery and mechanical equipment category the value of exports rose by 35% in the year. The U.S. market share of HS 84 exports was 59.3% in 1995 and 61.0% in 1996. This increase was spread across almost all of the selected categories in the table. There are no usable export volume measures for this export group.

Other evidence from employment data— such as the growth in provincial manufacturing employment in 1996— suggests that the export increase is largely volume based.

**Table 11. Exports of machinery, mechanical appliances and boilers:  
selected categories, 1995 and 1996**  
(value in \$millions)

HS Category	95 exp value	96 exp value	% change value
8431 Parts for lift, move machinery	64.4	88.7	37.7
8479 Special mach, appl.	53.6	77.9	45.3
8412 Hydraulic engines and parts	57.6	69.5	20.6
8473 Parts for office machinery	66.2	68.1	2.9
8481 Taps, valves for boilers	42.4	47.9	13.0
8419 Electric dryers and distillers	30.4	43.0	41.4
8430 Moving, grade, bore mach.	26.4	38.3	45.1
8421 Centrifuges and filtering machines	9.9	37.8	281.8
8413 Pumps	17.3	31.9	84.4
Total of the above	368.2	503.1	36.6
Total of HS 84 exports	505.6	682.1	34.9

Source: TIERS and the Western Centre for Economic Research

## ELECTRICAL EQUIPMENT AND PARTS

The growth in this export group since 1988 has been phenomenal. It now ranks third— after energy and cereals— in the hierarchy of Alberta export values. As Table 12 below reveals, there was a growth of 56% in this class in 1996, which came on top of an annual growth in export values of 41% in 1995.

Exports of telephone sets and related equipment account for just under one-half of exports in HS 85 while shipments of transmission equipment for radio and TV account for another two-fifths of the total. Trade data indicates that the volume of telephone shipments increased by 48% in 1996 over the previous year.

This is an industry which has clearly benefited from the trade agreements. In 1988 the American market share was 65% of total shipments of \$113 million. In 1996 the American market share was 82%— a slight decrease over the 86 % in 1995— and total export shipments amounted to \$1,231 million. Last year exports to Mexico of approximately \$28 million were recorded— the first significant dollar value shipment of manufactured products from western Canada.

**Table 12. Exports of electrical equipment: selected categories, 1995 and 1996**  
(values in \$millions)

HS Category	95 exp value	96 exp value	% change value
8517 Telephone sets	342.3	544.8	59.2
8525 Transmiss. equip. rad/TV	322.3	483.9	50.1
8529 Antennae for rad/TV	13.6	33.2	144.1
8520 Telephone answering machines	19.6	29.9	52.6
8526 Radio Navigation aids	7.9	19.4	145.6
8524 Tapes, software	15.6	15.9	1.9
8537 Boards and panels	13.5	15.7	16.3
Total of the above	734.8	1142.8	55.5
Total of HS 85 exports	789.8	1231.2	55.9

Source: TIERS and the Western Centre for Economic Research

## OPTICAL, MEASURING AND PRECISION INSTRUMENTS

This is another category with a high value-added content, and one that has enjoyed sustained growth over the past number of years. Data for 1996 compared with 1995 are shown in Table 13 below. In 1996, exports of all items in this class rose by just over 11%, an increase that compares with an 8% growth in 1995. The U.S. market share of HS 90 exports was 36.4% in 1995 and 37.6% in 1996.

**Table 13. Exports of optical, measuring instruments:  
selected categories 1995 and 1996**

(values in \$millions)

HS Category	95 exp value	96 exp value	% change value
9021 Orthopedic appliances	56.0	55.0	-1.8
9030 Oscill. electr. testing	15.1	33.2	119.9
9015 Geograph. measure instr.	14.1	21.5	52.5
9027 Phys/chem test equip.	15.3	15.0	-2.0
9026 Flow check instr.	8.2	12.3	50.0
9031 Other meas/check equip.	25.2	11.4	-54.8
9032 Auto control instr.	10.3	7.8	-24.3
Total of the above	144.2	156.2	8.3
Total of HS 90 exports	153.3	170.7	11.4

Source: TIERS and the Western Centre for Economic Research

Orthopedic appliances continue as the largest single item in terms of export value. In recent years the growth of electrical testing instruments (9030) and geographic measuring instruments (9015) continued to be strong.

## EXPORTS TO MEXICO

Table 14 summarizes the exports of each of the four western provinces to Mexico in selected years from 1988 to 1996. Over this period exports have increased from \$193 million to \$499 million with the increase in 1996 over the previous year amounting to 5.8%. The Alberta share of western Canadian shipments is currently just over 37%. Western Canadian exports, as a share of total Canadian exports to Mexico, rose to 42.5% in 1996, the highest level in any of the four years considered. British Columbia is the only one of the four provinces where shipments to the Mexican market show little change.

**Table 14**  
**Western provinces' exports to Mexico and Alberta share: selected years 1988-96**  
**(values in \$millions)**

	Alberta	BC	Manitoba	Saskatchewan	West Canada	Alberta share
1988	77.9	42.3	21.9	50.8	192.9	40.4%
1993	80.9	46.2	51.6	113.1	291.8	27.7%
1995	166.4	53.3	65.8	177.9	463.4	35.9%
1996	186.4	47.7	80.8	183.7	498.6	37.4%

Source: Tiers and the Western Centre for Economic Research

### ALBERTA MERCHANDISE EXPORTS TO MEXICO

Table 15 reports the top ten Alberta merchandise exports to Mexico in each of the reported years. Between 1995 and 1996 Alberta exports to Mexico rose by 12.6%, more than double the rate of growth for western Canada as a whole. However, Mexico remains a small market— less than 1% of Alberta exports. Casual observation suggests, however, that Mexico is a market of relatively greater significance with respect to the export of services. A study of the composition and magnitude of service exports to Mexico is badly needed.

In general, the profile of the top ten exports in 1996 looks very much like that of previous years with shipments of oilseeds, cereals and dairy products (powdered milk) amounting to just over three-fifths of the total value of exports. As pointed out previously, the most important change in 1996 has been the emergence of Mexico as an identifiable market for Alberta produced communications equipment and parts. These accounted for about 15% of the province's total exports to Mexico.

**Table 15**  
**Top Ten Alberta Exports to Mexico 1988, 1993, 1995 and 1996 (\$000's)**

CATEGORY	HS	88 Exports (Svalue)
Salt; sulphur; earth and stone; plaster	25	37,438
Oil seed, misc. grain, seed, fruit	12	21,950
Cereals	10	10,166
Live Animals	1	3,117
Fertilizers	31	2,451
Meat & Edible Offal	2	971
Animal/vegetable fats, oils	15	863
Machinery, boilers, mech appl, engines	84	485
Elec mchy equip parts; sound recorders	85	304
Special transaction-trade	99	124
<i>Sub-total of top 10 exports</i>		<i>77,870</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>78,411</b>
<b>Mexico as percent of Alberta's total</b>		<b>0.60%</b>
<b>Canadian Total to Mexico</b>		<b>490,460</b>
<b>Percent of Canadian Total</b>		<b>15.99%</b>

CATEGORY	HS	93 Exports (Svalue)
Cereals	10	23,421
Oil seed, misc. grain, seed, fruit	12	22,300
Mineral fuels, oils, prod of distillates	27	10,388
Dairy products; eggs; honey	4	6,994
Pulp of wood; cellulosic mat; waste	47	4,696
Meat & Edible Offal	2	4,670
Elec mchy equip parts; sound recorders	85	4,600
Live Animals	1	1,507
Optical, photo, cine, meas, precision	90	1,243
Products mill ind; malt; starches; gluten	11	1,097
<i>Sub-total of top ten exports</i>		<i>80,916</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>83,573</b>
<b>Mexico as percent of Alberta's total</b>		<b>0.42%</b>
<b>Canadian Total to Mexico</b>		<b>798,793</b>
<b>Percent of Canadian total</b>		<b>10.46%</b>

CATEGORY	HS	95 Exports (Svalue)
Oil seed, misc. grain, seed, fruit	12	69,416
Cereals	10	26,419
Dairy products; eggs; honey	4	18,154
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	4,084
Plastics and articles thereof	39	2,964
Elec mchy equip parts; sound recorders	85	2,236
<i>Sub-total of top 10 exports</i>		<i>166,410</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>170,322</b>
<b>Mexico as percent of Alberta's total</b>		<b>0.64%</b>
<b>Canadian Total to Mexico</b>		<b>1,106,890</b>
<b>Percent of Canadian total</b>		<b>15.39%</b>

CATEGORY	HS	96 Exports (Svalue)
Oil seed, misc. grain, seed, fruit	12	68,916
Cereals	10	32,569
Elec mchy equip parts; sound recorders	85	27,798
Dairy products; eggs; honey	4	17,252
Salt; sulphur; earth and stone; plaster	25	13,964
Mineral fuels, oils, prod of distillates	27	11,533
Pulp of wood; cellulosic mat; waste	47	7,429
Plastics and articles thereof	39	3,054
Optical, photo, cine, meas, precision	90	2,184
Meat & Edible Offal	2	1,660
<i>Sub-total of top 10 exports</i>		<i>186,358</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>191,701</b>
<b>Mexico as percent of Alberta's total</b>		<b>0.62%</b>
<b>Canadian Total to Mexico</b>		<b>1,170,995</b>
<b>Percent of Canadian total</b>		<b>16.37%</b>

## **OTHER WESTERN PROVINCES MERCHANDISE EXPORTS TO MEXICO**

Tables 16, 17, and 18 report the Mexican export trade of other western provinces. Both Manitoba and Saskatchewan recorded reasonably strong growth in the value of shipments to the Mexican market, not only since 1988, but also since 1993. Like Alberta, Manitoba and Saskatchewan exports to Mexico are dominated by oilseeds, cereals, and dairy products (powdered milk). This pattern has changed little since 1988. For example, these three product categories accounted, in the case of Manitoba, for two-thirds of shipments in 1988 and some 81% in 1996. For Saskatchewan, the shares were 89% and 86%, respectively.

For British Columbia the new trade relationship with Mexico has had little or no evident impact.

## **ALBERTA MERCHANDISE EXPORTS TO CHILE**

Alberta supplies a small but growing amount to Chile. Between 1993 and 1996, the value of exports bound for Chile grew \$16.9 million to \$45.5 million (see Table 19). These exports to Chile will probably continue to grow. Not only are Canada and Chile steadily improving their trade relationship, they share a similar resource base. The expertise Alberta firms have gained in extracting and processing such resources will almost certainly increase the value of the province's exports to Chile.

Canada is also a major foreign investor in Chile. Through these investments, important links and connections have been put in place. A key is whether the extensive Canadian investment there, including that by Alberta firms like NOVA, will induce subsequent increases in merchandise and service exports to that country. Historically, in the case of many countries, goods and services flows have followed investment— that could well be the case in this instance.

**Table 16**  
**Top Ten British Columbia Exports to Mexico 1988, 1993, 1995 and 1996 (\$000's)**

CATEGORY	HS	88 Exports (Svalue)
Pulp of wood; cellulosic mat; waste	47	33,478
Mineral fuels, oils, prod of distillates	27	2,804
Oil seed, misc. grain, seed, fruit	12	2,081
Salt; sulphur; earth and stone; plaster	25	1,161
Machinery, boilers, mech appl, engines	84	940
Elec mchy equip parts; sound recorders	85	670
Cereals	10	435
Meat & Edible Offal	2	272
Special classif. provisions	98	256
Wood and articles of wood; charcoal	44	248
<i>Sub-total of top ten exports</i>		<i>42,346</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>43,408</b>
<b>Mexico as percent of B.C.'s total</b>		<b>0.25</b>
<b>Canadian Total to Mexico</b>		<b>490,460</b>
<b>Percent of Canadian Total</b>		<b>8.85%</b>

CATEGORY	HS	93 Exports (Svalue)
Ores, slag, and ash	26	19,684
Pulp of wood; cellulosic mat; waste	47	17,672
Paper and paperboard	48	3,602
Edible fruit and nuts	8	1,355
Optical, photo, cine, meas, precision	90	1,064
Salt; sulphur; earth	25	921
Elec mchy equip parts; sound recorders	85	824
Cereals	10	492
Oil seed, misc. grain, seed, fruit	12	423
Machinery, boilers, mech appl, engines	84	214
<i>Sub-total of top ten exports</i>		<i>46,250</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>46,768</b>
<b>Mexico as percent of B.C.'s total</b>		<b>0.25</b>
<b>Canadian Total to Mexico</b>		<b>798,793</b>
<b>Percent of Canadian Total</b>		<b>5.85%</b>

CATEGORY	HS	95 Exports (Svalue)
Mineral fuels, oils, prod of distillates	27	25,594
Pulp of wood; cellulosic mat; waste	47	19,214
Salt; sulphur; earth	25	5,312
Oil seed, misc. grain, seed, fruit	12	1,063
Elec mchy equip parts; sound recorders	85	683
Cereals	10	424
Machinery, boilers, mech appl, engines	84	307
Optical, photo, cine, meas, precision	90	298
Pharmaceutical products	30	234
Printed books, newspapers, pictures	49	155
<i>Sub-total of top ten exports</i>		<i>53,284</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>53,839</b>
<b>Mexico as percent of B.C.'s total</b>		<b>0.20</b>
<b>Canadian Total to Mexico</b>		<b>1,106,890</b>
<b>Percent of Canadian total</b>		<b>4.86%</b>

CATEGORY	HS	96 Exports (Svalue)
Ores, slag, and ash	26	12,691
Mineral fuels, oils, prod of distillates	27	10,603
Pulp of wood; cellulosic mat; waste	47	8,917
Salt; sulphur; earth	25	5,622
Inorg. chemicals, comp. precious metals	28	3,511
Machinery, boilers, mech appl, engines	84	2,029
Oil seed, misc. grain, seed, fruit	12	1,729
Optical, photo, cine, meas, precision	90	1,041
Paper and paperboard	48	897
Cereals	10	642
<i>Sub-total of top ten exports</i>		<i>47,681</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>48,415</b>
<b>Mexico as percent of B.C.'s total</b>		<b>0.19</b>
<b>Canadian Total to Mexico</b>		<b>1,170,995</b>
<b>Percent of Canadian total</b>		<b>4.13%</b>

**Table 17**  
**Top Ten Manitoba Exports to Mexico 1988, 1993, 1995 and 1996 (\$000's)**

CATEGORY	HS	88 Exports (\$value)
Oil seed, misc. grain, seed, fruit	12	9,053
Cereals	10	5,602
Fertilizers	31	2,455
Iron and steel	72	924
Meat & Edible Offal	2	876
Animal/vegetable fats, oils	15	857
Special transaction-trade	99	808
Paper and paperboard	48	571
Plastics and articles thereof	39	392
Edible vegetables; roots; tubers	7	322
<i>Sub-total of top 10 exports</i>		<i>21,858</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>22,344</b>
<b>Mexico as percent of Manitoba's total</b>		<b>0.77%</b>
<b>Canadian Total to Mexico</b>		<b>490,460</b>
<b>Percent of Canadian Total</b>		<b>4.56%</b>

CATEGORY	HS	93 Expor (\$value)
Cereals	10	20,31
Oil seed, misc. grain, seed, fruit	12	17,11
Nickel and articles thereof	75	4,59
Animal/vegetable fats, oils	15	4,39
Meat & Edible Offal	2	1,66
Dairy products; eggs; honey	4	1,32
Iron and steel	72	97
Edible vegetables; roots; tubers	7	87
Printed books, newspapers, pictures	49	23
Albuminoidal subs; mod starches; glues	35	15
<i>Sub-total of top 10 exports</i>		<i>51,64</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>51,80</b>
<b>Mexico as percent of Manitoba's total</b>		<b>1.50%</b>
<b>Canadian Total to Mexico</b>		<b>798,79</b>
<b>Percent of Canadian Total</b>		<b>6.49%</b>

CATEGORY	HS	95 Exports (\$value)
Oil seed, misc. grain, seed, fruit	12	33,789
Cereals	10	17,521
Dairy products; eggs; honey	4	5,735
Nickel and articles thereof	75	4,462
Paper and paperboard	48	1,787
Edible vegetables;roots;tubers	7	1,617
Iron and steel	72	537
Plastics and articles thereof	39	143
Printed books, newspapers, pictures	49	160
Elec mchy equip parts;sound recorders	85	61
<i>Sub-total of top 10 exports</i>		<i>65,813</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>65,868</b>
<b>Mexico as percent of Manitoba's total</b>		<b>1.20%</b>
<b>Canadian Total to Mexico</b>		<b>1,106,890</b>
<b>Percent of Canadian total</b>		<b>5.95%</b>

CATEGORY	HS	96 Expor (\$value)
Oil seed, misc. grain, seed, fruit	12	44,46
Cereals	10	16,99
Animal/vegetable fats,oils	15	9,07
Nickel and articles thereof	75	4,18
Dairy products; eggs; honey	4	3,81
Edible vegetables;roots;tubers	7	91
Iron and steel	72	84
Articles of iron and steel	73	25
Plastics and articles thereof	39	16
Optical,photo,cine,meas, precision	90	12
<i>Sub-total of top 10 exports</i>		<i>80,84</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>80,98</b>
<b>Mexico as percent of Manitoba's total</b>		<b>1.40%</b>
<b>Canadian Total to Mexico</b>		<b>1,170,99</b>
<b>Percent of Canadian total</b>		<b>6.92%</b>

**Table 18**  
**Top Ten Saskatchewan Exports to Mexico 1988, 1993, 1995 and 1996 (\$000's)**

CATEGORY	HS	88 Exports (\$value)
Oil seed, misc. grain, seed, fruit	12	22,661
Cereals	10	22,293
Fertilizers	31	4,824
Dairy products; eggs; honey	4	374
Machinery, boilers, mech appl, engines	84	300
Meat & Edible Offal	2	263
Edible vegetables; roots; tubers	7	79
Products of animal origin	5	11
Paper and paperboard	48	8
Mineral fuels, oils, prod of distillates	27	6
<i>Sub-total of top ten exports</i>		<i>50,819</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>50,822</b>
<b>Mexico as percent of Sask.'s total</b>		<b>0.88</b>
<b>Canadian Total to Mexico</b>		<b>490,460</b>
<b>Percent of Canadian Total</b>		<b>10.36%</b>

CATEGORY	HS	93 Exports (\$value)
Cereals	10	59,612
Oil seed, misc. grain, seed, fruit	12	27,554
Meat & Edible Offal	2	11,630
Pulp of wood; cellulosic mat; waste	47	7,565
Dairy products; eggs; honey	4	4,368
Edible vegetables; roots; tubers	7	1,668
Live Animals	1	239
Products mill ind; malt; starches; gluten	11	180
Elec mchy equip parts; sound recorders	85	146
Albuminoidal subs; mod starches; glues	35	127
<i>Sub-total of top ten exports</i>		<i>113,088</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>113,172</b>
<b>Mexico as percent of Sask.'s total</b>		<b>1.9</b>
<b>Canadian Total to Mexico</b>		<b>798,793</b>
<b>Percent of Canadian Total</b>		<b>14.17%</b>

CATEGORY	HS	95 Exports (\$value)
Oil seed, misc. grain, seed, fruit	12	76,508
Cereals	10	56,710
Pulp of wood; cellulosic mat; waste	47	21,496
Optical, photo, cine, meas, precision	90	9,897
Dairy products; eggs; honey	4	8,461
Edible vegetables; roots; tubers	7	3,498
Meat & Edible Offal	2	1,062
Products mill ind; malt; starches; gluten	11	249
Residues and wastes from food ind.	23	21
<i>Sub-total of top ten exports</i>		<i>177,903</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>177,903</b>
<b>Mexico as percent of Sask.'s total</b>		<b>2.3</b>
<b>Canadian Total to Mexico</b>		<b>1,106,890</b>
<b>Percent of Canadian total</b>		<b>16.07%</b>

CATEGORY	HS	96 Exports (\$value)
Oil seed, misc. grain, seed, fruit	12	79,451
Cereals	10	61,943
Dairy products; eggs; honey	4	16,057
Optical, photo, cine, meas, precision	90	11,945
Pulp of wood; cellulosic mat; waste	47	8,102
Edible vegetables; roots; tubers	7	5,715
Products mill ind; malt; starches; gluten	11	336
Meat & Edible Offal	2	146
<i>Sub-total of top ten exports</i>		<i>183,696</i>
<b>Total Exports to Mexico (HS 01-99)</b>		<b>183,696</b>
<b>Mexico as percent of Sask.'s total</b>		<b>2.1</b>
<b>Canadian Total to Mexico</b>		<b>1,170,995</b>
<b>Percent of Canadian total</b>		<b>15.69%</b>

**Table 19**  
**Top Ten Alberta Exports to Chile 1988, 1993, 1995 and 1996 (\$000's)**

CATEGORY	HS	88 Exports (\$value)
Salt; sulphur; earth and stone; plaster	25	9,036
Fertilizers	31	1,478
Elec mchy equip parts; sound recorders	85	1,453
Machinery, boilers, mech appl, engines	84	434
Vehicles o/t railw/tram roll stock, prt	87	387
Articles of iron adn steel	73	355
Optical, photo, cine, meas, precision	90	207
Inorg chemcls; comp prec metals, rad el	28	58
Products of animal origin	5	41
Live animals	1	23
<i>Sub-total of top 10 exports</i>		<i>13,473</i>
<b>Total Exports to Chile (HS 01-99)</b>		<b>13,514</b>
<b>Chile as percent of Alberta's total</b>		<b>0.10%</b>
<b>Canadian Total to Chile</b>		<b>135,799</b>
<b>Percent of Canadian Total</b>		<b>9.95%</b>

CATEGORY	HS	93 Exports (\$value)
Cereals	10	9,031
Mineral fuels, oils, prod of distillates	27	3,827
Machinery, boilers, mech appl, engines	84	2,340
Elec mchy equip parts; sound recorders	85	699
Salt; sulphur; earth and stone; plaster	25	606
Meat & edible offal	2	88
Optical, photo, cine, meas, precision	90	79
Inorg chemcls; comp prec metals, rad el	28	63
Vehicles o/t railw/tram roll stock, prt	87	46
Products of animal origin	5	46
<i>Sub-total of top ten exports</i>		<i>16,823</i>
<b>Total Exports to Chile (HS 01-99)</b>		<b>16,876</b>
<b>Chile as percent of Alberta's total</b>		<b>0.09%</b>
<b>Canadian Total to Chile</b>		<b>194,140</b>
<b>Percent of Canadian total</b>		<b>8.69%</b>

CATEGORY	HS	95 Exports (\$value)
Cereals	10	12,550
Mineral fuels, oils, prod of distillates	27	8,161
Salt; sulphur; earth and stone; plaster	25	7,869
Fertilizers	31	4,466
Machinery, boilers, mech appl, engines	84	2,765
Plastics and articles thereof	39	2,218
Elec mchy equip parts; sound recorders	85	2,173
Furniture, bedding	94	577
Articles of iron adn steel	73	515
Wood and articles of wood; charcoal	44	455
<i>Sub-total of top 10 exports</i>		<i>41,750</i>
<b>Total Exports to Chile (HS 01-99)</b>		<b>43,407</b>
<b>Chile as percent of Alberta's total</b>		<b>0.16%</b>
<b>Canadian Total to Chile</b>		<b>369,332</b>

CATEGORY	HS	96 Exports (\$value)
Cereals	10	21,725
Salt; sulphur; earth and stone; plaster	25	9,008
Elec mchy equip parts; sound recorders	85	6,319
Machinery, boilers, mech appl, engines	84	2,146
Furniture, bedding	94	1,452
Mineral fuels, oils, prod of distillates	27	1,334
Fertilizers	31	967
Vehicles o/t railw/tram roll stock, prt	87	514
Railw/trams loco, rolling stock, parts	86	465
Plastics and articles thereof	39	433
<i>Sub-total of top 10 exports</i>		<i>44,364</i>
<b>Total Exports to Chile (HS 01-99)</b>		<b>45,494</b>
<b>Chile as percent of Alberta's total</b>		<b>0.15%</b>
<b>Canadian Total to Chile</b>		<b>313,632</b>

**Percent of Canadian total**                      **11.75%**

**Percent of Canadian total**                      **14.51%**

## CONCLUSION

Alberta's economy is an excellent example of export-led growth.

The evidence is that the trade agreements have served Alberta public policy well by playing an essential role in achieving that growth: trade policy opened markets. A new, more open trade environment, led to firmer and broader commercial relationships, and consequent upon these, realization of export potential. The pursuit of export markets by Alberta's manufacturers clearly reflects the sophisticated nature of the province's economy.

For most of Alberta's top twenty export sectors, greater access to the U.S. market has been a great advantage, not only in shipment dollars but also in the producer experience acquired in a relatively benign foreign market. In 1996 Alberta exported in aggregate almost \$240 of merchandise for every \$100 shipped in 1988. The FTA and NAFTA have provided a competitive atmosphere and Alberta's manufacturers have responded. Apart from the energy industry—generally acknowledged prior to the signing of the agreements as a prime beneficiary—other value-added content sectors have bloomed as their involvement in the trading world grew exponentially.

By combining the value-added sectors the WCER has been tracking over the last eight years, namely meat processing, paper and paperboard, machinery, electrical equipment, precision instruments, aircraft and parts, and furniture, we have observed that the value of exports rose from \$537 million in 1988, to \$3,415 million in 1996. That is an aggregate increase of 536% (which compares with an increase of 136% in total exports and 158% in energy exports). Put otherwise, the group of exports listed above account for 11% of the value of Alberta exports compared with 4% in 1988.