

Changes in the Prairie Economy, 1980 to 2000

**With Emphasis on Agriculture and
Some Implications for Prairie Transportation Policies**

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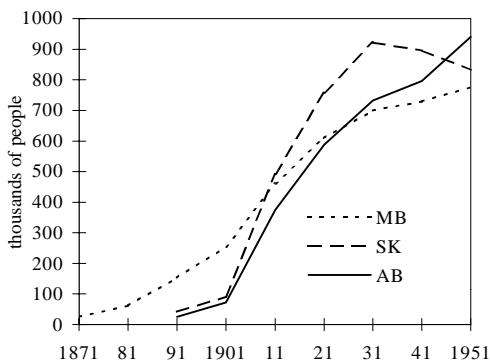
Statistical Annex

INTRODUCTION

The three Prairie provinces of Manitoba, Saskatchewan and Alberta¹ have been in a state of restructuring and change since settlement by European immigrants in the latter half of the 19th and the early part of the 20th centuries. From the 1880s through to the Second World War, the Prairies developed a well-earned reputation as “*the bread-basket of the world*”. Settlements, road and rail transportation, government institutions, research and legislation, were all created around the needs of the export grain economy.

Changes to the Prairie economy were often dramatic, both within and around the early grain economy. They included: building a railroad, initial settlement, eight mile hauls by horse and cart over tracks and dirt roads, elevator construction, formation of thousands of communities, adjusting to drought, developing new wheat varieties, shifting from horse power to steam, and then to internal combustion engines, introducing cars and trucks, a second railway, building railway branch lines, and latterly, consolidating farms, and migrating to the cities. Population grew from 153,000 in Manitoba in 1891 to nearly 2 million in the three Prairie Provinces by 1921.

Figure 1
Prairie Population Growth, 1871 - 1951



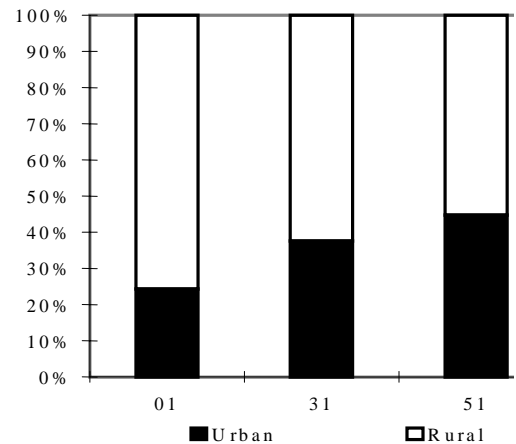
Source: Statistical Annex, Table 1.

¹ MB-Manitoba, SK-Saskatchewan, AB-Alberta.

Movement of goods during the first half of the 20th century was primarily by rail for the longer distance export movements and by road for local movements.

For the early years of the 20th century, the Prairies were both a rural economy and a rural society. Most people lived on the farms, in the countryside and many small rural towns and villages. Fifty-five percent of the Prairie population was still rural in 1951.

Figure 2
Distribution of Urban and Rural Population
Prairie Provinces, 1901, 1931, 1951



Source: Statistical Annex, Table 2.

Cities like Winnipeg, Regina, Saskatoon, Edmonton and Calgary grew as regional service centres for agriculture by providing transportation, finance, supply and processing facilities for the grain economy. The cities received a steady stream of migrants from farms and smaller rural centres as well as international migrants. By the 1950s the five largest cities in the Prairies accounted for only about one quarter of the Prairie population.

After World War II and into the 1970s the Prairie agricultural economy continued to change. Other natural resources joined and then exceeded agriculture in the value of sales in the Prairie economy. These included oil and gas in Alberta; oil, gas and mining in Saskatchewan; mining and energy

in Manitoba. Each of these new and growing industries developed their own transportation, infrastructure, service, and supply requirements – needs far different from those of the grain economy.

Winnipeg was the grain and financial services centre of the Prairies. With these new developments, Calgary became the oil capital of Canada and Saskatoon the potash capital. New and special purpose forms of transportation were developed to move and export these new commodities - pipelines for oil and gas, hopper cars and unit trains for potash, coal and other minerals; and larger trucks and strengthened roads for longer distance overland hauls of these commodities.

By 1970 the Prairie economic structure was a broadly based natural resource economy. Both Prairie employment and output were increasingly based on non-agricultural activity. Multi-modal transportation was delivering a diverse range of commodities to a global set of markets. Export trade had expanded beyond wheat and barley. Demands for goods and services in the growing Prairie cities led to growing import demands, both domestic and international.

The rural to urban migration continued. By 1981, the rural population had been further reduced to 29% of the total population. The 1980s and 1990s continued the transformation of the Prairie economy and its related infrastructure. The following pages describe the nature of the changes, identify the forces of change, and examine some of the implications for Prairie transportation infrastructure.

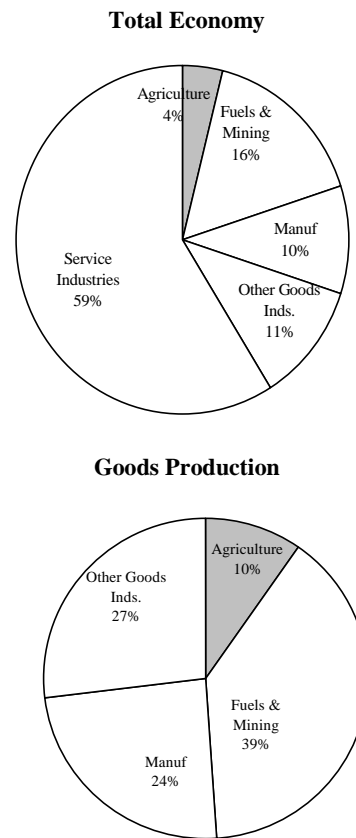
THE STRUCTURE OF THE PRAIRIE ECONOMY 1980 to 2000

The process of social, economic and community change in the Prairies continued in the last two decades of the 20th century and developed a new foundation for economic activity. The new Prairie economy now extends well beyond agriculture.

Production and Output

Gross domestic product (GDP) is a general measure of the sum of goods and services in any economy. Over the 1980s and 1990s the GDP for the Prairies grew by 64% from \$96 billion in 1981 to \$157 billion by 1999. By the end of the 1990s the Prairie economy had started to diversify away from natural resources. The region remains resource dependent, but increasingly, is no longer export grain dependent.

**Figure 3
Distribution of Total and Goods Producing Economic Activity, Prairie Provinces, (Real \$92 GDP), 1997**



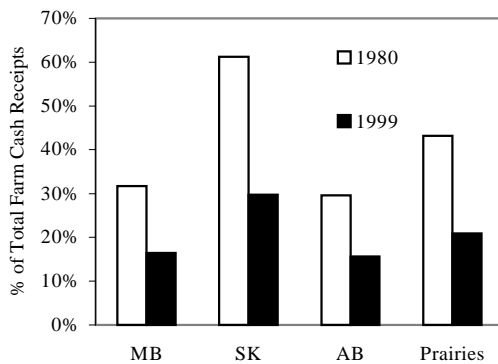
Source: Derived from Statistical Annex, Table 3.

Agriculture is still an important industry in the region, but in 1997 accounted for only 4% of the total Prairie economy. The role of agriculture is largest in Saskatchewan, accounting for 9% of total provincial activity in 1997, but is only 3% of real GDP in both

Manitoba and Alberta. Significantly, regulated export grains account for only 0.8% of prairie GDP in 1997 and only 2.5% of provincial GDP in Saskatchewan where export grains are “king”.

The share export grains (wheat, barley and oats) holds of Prairie farm cash receipts has fallen dramatically between 1980 and 1999. The drop was greatest in Saskatchewan, but the shift away from export grains occurred throughout the region.

Figure 4
Export Grains as a % Farm Cash Receipts
1980 and 1999



Source: Statistical Annex, Table 10

As the Prairie economy grew after the Second World War other major natural resource industries, like mining, oil and gas and forest products came to overshadow the agricultural sector in overall sales. Mining, including oil and gas production, now contributes more to GDP than agriculture in Saskatchewan and Alberta.

By 1997, manufacturing had expanded to 10% of Prairie GDP. Other areas of natural resource production, including forestry, had reached a similar size. As in the rest of Canada, the largest source of economic activity and employment is now found in the service sector of the Prairies.

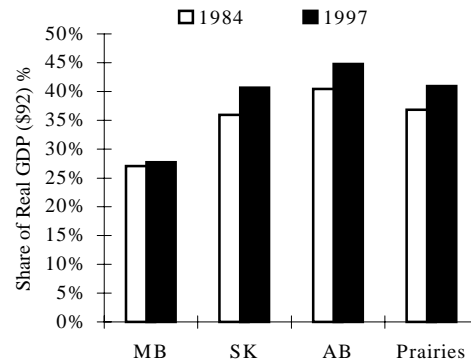
Table 1
Distribution of Economic Activity
by Province and Prairies, 1997
(% of Total Real Gross Domestic Product (\$92))

	MB %	SK %	AB %	Prairies %
Agriculture	3	9	3	4
Mining	2	16	19	16
Manufacturing	12	6	10	10
Other Goods Industries	11	10	13	11
Services	72	59	55	59
Total	100	100	100	100

Source: Statistical Annex, Table 3.

By the 1980s and into the 1990s, Prairie Canada transformed itself economically from being a “breadbasket to the world” to becoming a “natural resource provider to the world” and in particular, into the United States.

Figure 5
Goods Production as % of Total Economic Activity,
Prairie Provinces, 1984 – 1997



Source: Statistical Annex, Table 3

Dependence upon goods production, largely based on the export of natural resources, grew from 37% to 41% of the total Prairie economy between 1984 and 1997. The trend towards increased goods production was highest in Alberta and Saskatchewan where goods production as a share of the economy increased by five percentage points in both provinces.

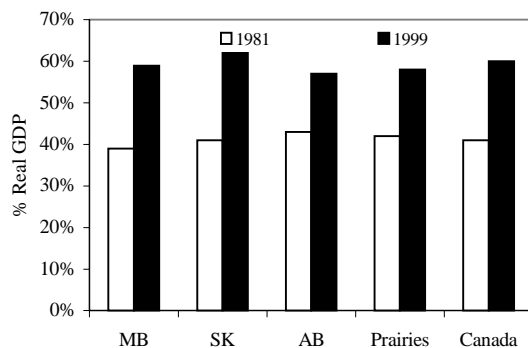
The Prairie economy is now strongly integrated with the world economy. In the last two decades of the

twentieth century, the Prairies increased its level of export dependence. A large number of commodities, both agricultural, in the form of special crops and oilseeds, and other natural resources like oil, gas, forest products and potash, all supplemented the traditional regulated grain export movements of wheat and barley from the region.

Trade and Exports

Each Prairie province increased its level of export dependence (both international and inter-provincial) during the period. Between 1981 and 1999, total trade more than doubled in the Prairies. However, the Prairies still remained less dependent on exports than the Canadian economy as a whole, except in Saskatchewan.

Figure 6
Export Dependence in Prairie Provinces and Canada
Exports as a Share of Real GDP, 1981 and 1999

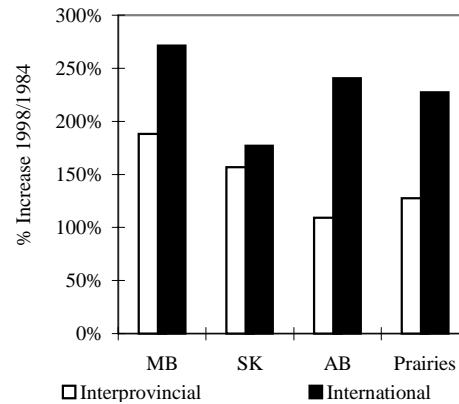


Source: Statistical Annex, Table 4

While all trade by Prairie provinces grew, international exports grew by 227% between 1984 and 1998, almost twice the rate of inter-provincial export trade growth (128% for the same period). The fastest rate of inter-provincial export growth was in Manitoba, still based on its historic role as a transportation, storage and wholesaling centre between central and western Canada. The highest

rate of international export growth was from Alberta, based on energy movements into the U.S.

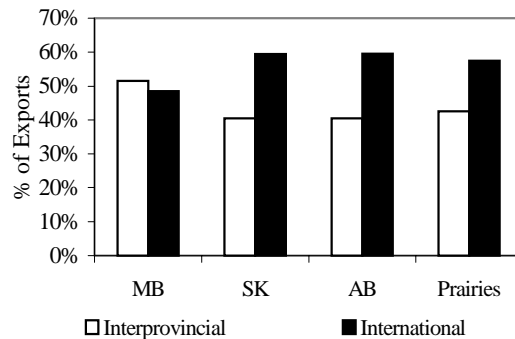
Figure 7
Growth of Trade, Prairie Provinces, 1984 – 1996
Inter-provincial and International Trade



Statistical Annex, Table 5

By 1998, international exports of goods and services dominated trade patterns in all provinces, except in Manitoba, where both national and international trading was close to balanced.

Figure 8
Distribution of Prairie Trade Exports between
Inter provincial and International Trade, 1999

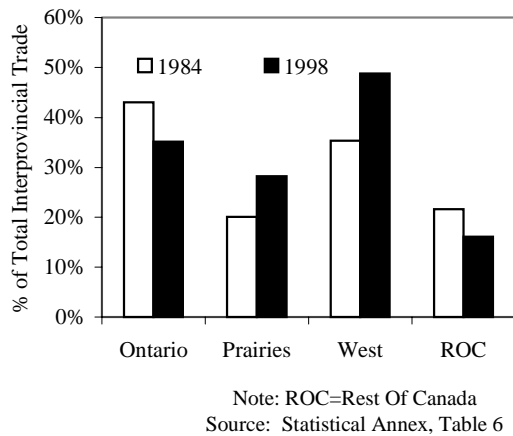


Source: Statistical Annex, Table 7

Both Saskatchewan and Alberta were heavily dependent on their export trade for income, public revenues from royalties, and employment. These export activities were increasingly goods producing activities that required a wide range of modes of

transportation to final export delivery points, including road, rail, water and pipeline movements. Between 1984 and 1998 Prairie trade between provinces in Canada shifted west. Ontario and the rest of Canada's share of Prairie exports declined while exports to British Columbia and the rest of the Prairies increased. This trend was strongest in Saskatchewan and Alberta, but also significant in Manitoba.

Figure 9
Change in Share of Prairie Inter-provincial Exports to Regions of Canada, 1984 – 1998



Throughout the 1980s and 1990s the composition of Prairie domestic and international trade changed. Import trade remained dominated by the import of resource industry supplies, manufacturing and consumer goods for the Prairie economy and residents. For the most part, these goods originate in central Canada and the United States.

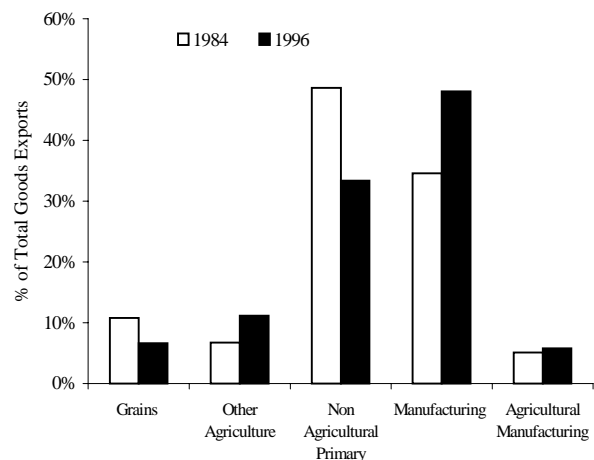
Export trade shifted towards the movement of a wide range of natural resources, beyond regulated Canadian Wheat Board (CWB) grains² to manufactured exports derived from the food and other sectors of the Prairie economy. Between 1984 and 1996, years for which Statistics Canada has undertaken a detailed review of trade by commodity^a, Prairie export trade grew by 162% to reach \$88

² (originally wheat, oats and barley; now only wheat and barley)

billion. Growth was accompanied by the restructuring of the components of traded goods.

The value of grain exports grew by 96% between 1984 and 1996. However, the share that grain exports held of Prairie export trade of goods production fell from 11% in 1986 to only 7% twelve years later. Complementing this decline in the importance of grains, was the 259% increase in exports of other agricultural products, whose share of trade in goods rose from 7% to 11% over the same period. Prairie farmers had moved towards the production of oilseeds and special crops in response to the changing world market and global government subsidy competition in agriculture.

Figure 10
Share of Prairie Goods Export Trade Held by Selected Sectors of the Prairie Economy, 1984 and 1996



Source: Statistical Annex, Table 5

Bulk resource exports from the Prairies also declined dramatically, as the share of non-agricultural primary exports fell from 49% of the goods exports in 1984 to 33% in 1996. Prairie manufacturing goods exports in the form of petrochemicals, fertilizers, fuels, forest products and primary metals grew to increase their share of Prairie exports from 35% in 1984 to 48% in 1996.

This period, therefore, represents a critical milestone in which manufactured goods comprised the larger

share of exported goods than traditional resource goods, and far exceeded the role that grains play in the Prairie export economy. Even food processing showed growth, increasing its share of the Prairie goods exports from 5% to 6% over the period.

Table 2
Share of Provincial Goods Export Trade Held by Selected Sectors of the Economy, Prairie Provinces, 1984 – 1996
 (% of Total)

	MB		SK		AB	
	1984 \$ Ms	1996 \$ Ms	1984 \$ Ms	1996 \$ Ms	1984 \$ Ms	1996 \$ Ms
Total Goods	100%	100%	100%	100%	100%	100%
Primary	35%	22%	71%	66%	70%	53%
<i>Grains</i>	17%	5%	31%	22%	4%	3%
<i>Other Agriculture</i>	17%	18%	12%	20%	4%	7%
Manufacturing	72%	76%	29%	34%	30%	46%
<i>Agricultural Manufacturing</i>	10%	6%	4%	3%	5%	6%
Non Agricultural*	56%	70%	53%	56%	88%	84%

* Total Goods less Grains, Other Agriculture and Agricultural Manufacturing. Source: Statistical Annex, derived from Table 5

Provincial statistics for goods exports show clearly the shift in export trade away from grains and primary resource extraction towards new agricultural crops, and general manufacturing. This shift was strongest in Alberta and Saskatchewan. Agricultural processing was clearly one of the weaker sectors of the Prairie economy until late in the 1990s, when following federal transportation reforms, this activity increased.

Significantly, grains were only three percent of Prairie goods exports in 1996 and fell dramatically in Manitoba from 17% of goods exports in 1984 to 5% in 1996. In Saskatchewan, the fall was nine percentage points in share. In Alberta the grain exports accounted for only 3% of provincial goods exports in 1996.

Trade statistics show today's Prairies as a more diversified economy, with increasingly complex and sophisticated trade movements and transport, shipping and logistics management requirements.

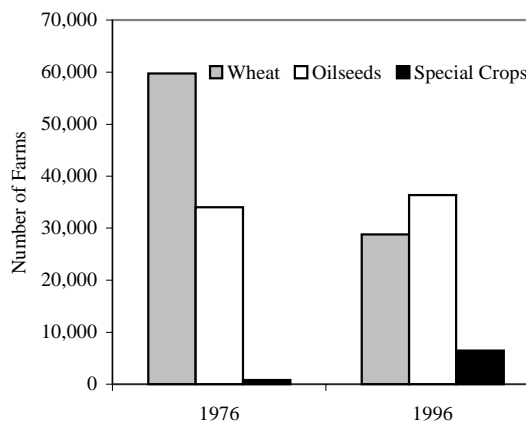
Agriculture

Dramatic changes have transformed the face of Prairie agriculture in the 1980s and the 1990s. Both the numbers of farms, and the areas and types of crops planted each year show significant changes over the period.

Number of Farms

Census data from Statistics Canada for the Prairies show the number of farms declined from 142,011 to 132,061 between 1976 and 1996, a reduction of seven percent over the two decades. More importantly the same data show a shift away from wheat farms towards more beef, oilseeds and special crop farms.

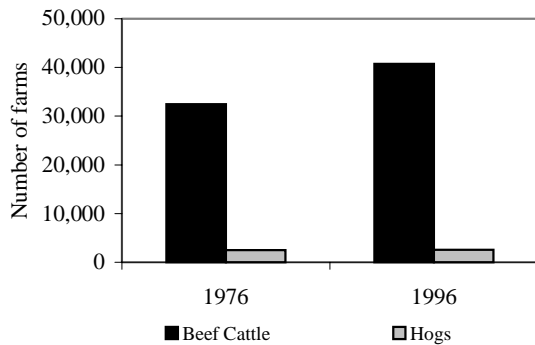
Figure 11
Chart of Numbers of Prairie Wheat, Oilseeds and Special Crops Farms, 1976 and 1996



Source: Statistical Annex, Table 8

The number of wheat farms declined by over fifty percent in that period, from 59,724 to 28,842. Other grains and oilseeds farms remained about the same in numbers although there were declines in Manitoba and Alberta and a significant increase in this type of farm in Saskatchewan. There were huge increases in the numbers of farms growing specialty crops across the region, from 843 in 1976 to 8,284 in 1996.

Figure 12
Number of Beef and Hog Farms, Prairie Provinces, 1976 and 1996



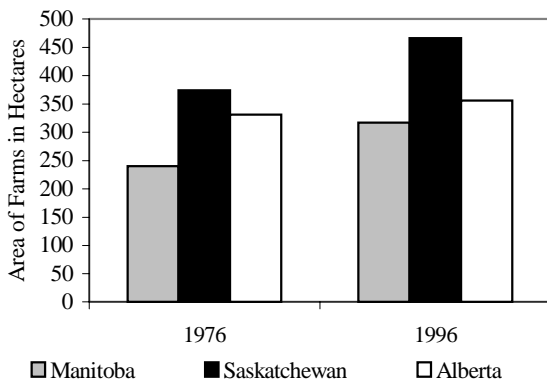
Source: Statistical Annex, Table 8

The number of farms described as beef cattle operations increased about 26% across the region, from 32,404 to 40,668. The number of hog farms remained about the same in the 20 years from 1976 to 1996. These numbers, however, mask to some degree the increases in individual farm size as farms got larger.

Size of Farms

The size of all farms in the Prairies increased in the period. Between 1976 and 1996, the average size of census farms increased by 32% in Manitoba, 25% in Saskatchewan and 8% in Alberta.

Figure 13
Average Size of Census Farms, Prairie Provinces 1976 and 1996

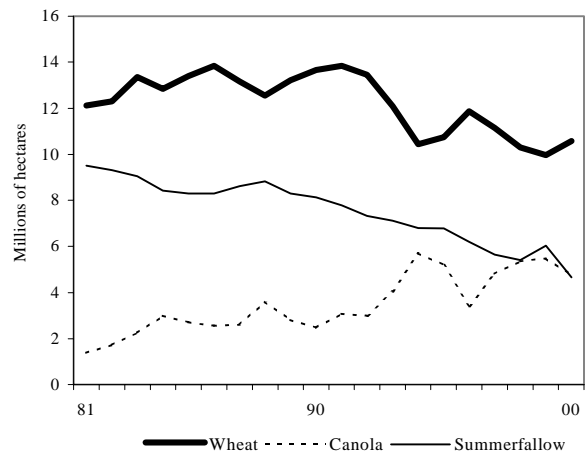


Source: Derived from Statistical Annex, Table 9

Crops

Cropping patterns in the Prairies have changed over the last two decades. Wheat is still the crop planted on the greatest number of hectares. However, the area devoted to wheat has been declining since peaking in 1986, at 13,843 thousand hectares. This decline has been significant since 1990. In 2000, the area planted to wheat in the prairies had declined by 24% over the 1986 level. In 2000, there were only 10,577 thousand hectares planted to wheat. Barley acreage, another regulated grain through the 1980s, saw a similar 16% decline in acreage between 1981 and 2000.

Figure 14
Area of cropland in Wheat, Canola and Summerfallow, 1981 - 2000



Source: Statistical Annex, Table 11

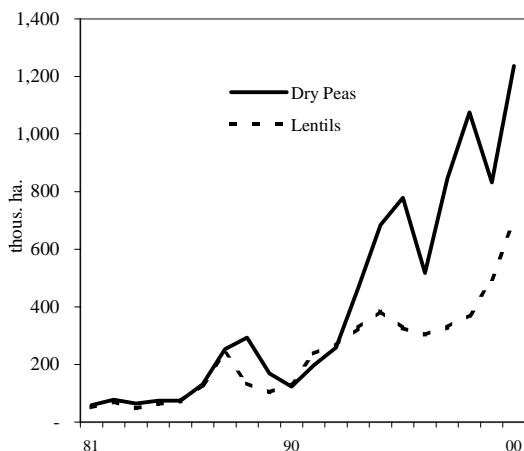
Historically, summerfallow acreage has been related to wheat production. Between 1981 and 2000, summerfallow followed the decline in area planted to wheat releasing land for other uses.

There was a substantial increase in the acres planted to canola over these two decades. The area planted in 1981 was only 1,376 thousand hectares. By 2000, the area planted to canola had more than tripled to 4,769 thousand hectares.

Special crops also showed remarkable growth in the Prairies between 1981 and 1999. Lentils, peas, beans, and mustard have increased in acreage. The

production of dry peas and lentils illustrate the magnitude of the growth.

Figure 15
Prairie Acreage of Dry Peas and Lentils, 1981 - 2000



Source: Statistical Annex, Table 12

The area planted for the production of dry peas has increased from only 60 thousand hectares in 1981 to 1,236 thousand hectares in 2000. Lentil acreage also rose dramatically from 51 thousand hectares in 1981 to 699 thousand hectares in 2000.

Livestock

Livestock on Prairie farms has increased since 1980 by 27%. Most of this growth has occurred since 1986. By the year 2000 cattle accounted for about two thirds of Prairie livestock and hogs one third.

Table 3
Livestock on Prairie Farms, 1980, 1990, 2000 (Thousands)

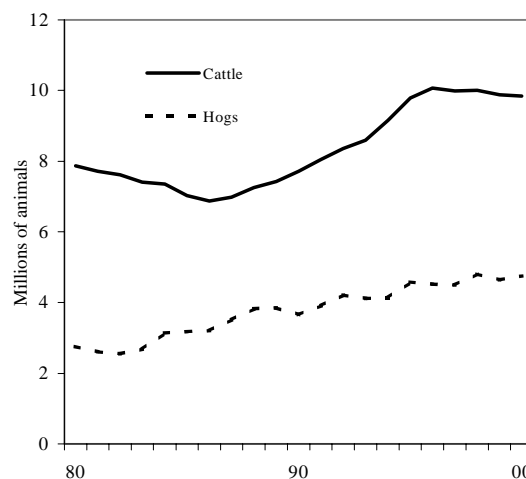
	Cattle	Hogs	Sheep & Lambs	Total
1980	7,780	2,767	282	10,829
1990	7,718	3,655	392	11,765
2000	9,844	4,754	410	15,009
Percent Increase				
1980-1990	-1%	32%	39%	9%
1990-2000	28%	30%	5%	28%
1980-2000	27%	72%	46%	39%
Percent Distribution				
1980	72%	26%	3%	100%
1990	66%	31%	3%	100%
2000	66%	32%	3%	100%

Source: Statistical Annex, Table 15

The cattle population (beef and dairy) increased from about 7.7 million head in 1980 to about 9.8 million in 2000, an increase of 27%.

The number of hogs increased faster. In 1980 there were about 2.7 million hogs in the Prairies. By 2000, this number of hogs had increased to 4.7 million, or by about 72 percent.

Figure 16
Cattle and Livestock on Prairie Farms, 1980 - 2000



Source: Statistical Annex, Table 14

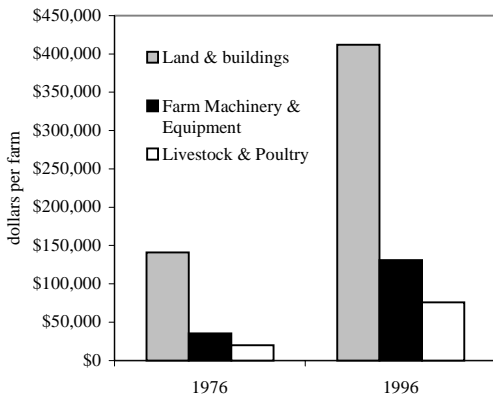
These increased numbers of livestock represent significant increases in the demands for feed grains (and oilseed meals) in the Prairies over the period.

Farm Capital

Prairie farms increased both their size and requirement for capital over the last two decades of the 20 century. The increased requirement for capital is evident in all types of capital used: land and buildings, machinery and equipment, and livestock and poultry.

Between 1976 and 1996 Statistics Canada reported that capital per farm in the Prairies increased by over 210 percent.

Figure 17
Capital in Use on Prairie Farms, 1976 and 1996



Source: Statistical Annex, Table 16

Increases in the capital allocated to land and buildings, while substantial at about 190 percent over the period, is overshadowed by the increases in capital allocated to machinery and equipment which increased by 270 percent. Further, the increase in capital allocated to livestock and poultry was greater still at 288 percent in the period.

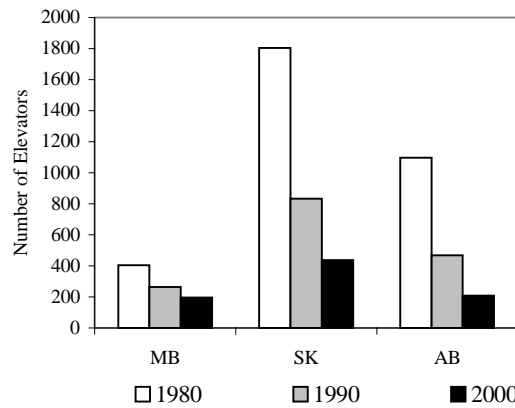
These trends reflect the patterns of change to larger farms, with more machinery and equipment and more livestock, especially hogs and beef cattle destined for both live animal exports and for slaughter in the Prairie area.

Grain Handling

Part of the change in agriculture is seen in the dramatic restructuring of the grain handling and transportation system. Between 1980 and 2000 the number of country elevators declined from 3,307 to 842. New larger, more efficient elevator capacity has been built at the new inland terminals that have changed the Prairie skyline.

The change in the number of elevators has been greatest in Saskatchewan, where there had been little rationalization of the system in earlier decades.

Figure 18
Number of Grain Elevators
Prairie Provinces, 1980 and 2000

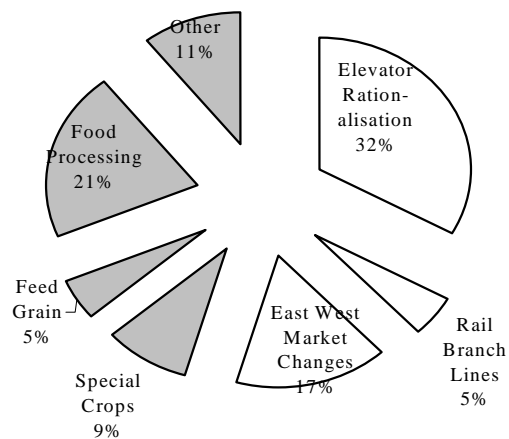


Source: Statistical Annex, Table 17

The process of grain handling rationalization is still underway. While the new system of concrete inland terminals has been completed, much of the old system still remains operational and grain still moves through this part of the system.

Changes in grain handling have been accompanied by increases in rural truck traffic, particularly on rural roads. Some of these changes are related to elevator rationalisation, but most arise from the new agriculture and the new diversified parts of the Prairie economy.

Figure 19
Estimated Sources of Extra Trucking in Rural Saskatchewan, 1987-97



Source: Statistical Annex, Table 18

Manufacturing

Traditionally, the Prairies, as “*hewers of wood and drawers of water,*” had seen little growth in its manufacturing sector. Diversification to increase manufacturing value added has always been central to Prairie populist politics and therefore the economic policies of provincial governments. There have been mixed results over the years. Agriculture, grains and, more recently, other natural resource exports dominated the three Prairie provincial economies.

Through to the 1960s, Prairie manufacturing employment grew from 33,000 in 1923 to nearly 100,000 by 1959^b. Historically, manufacturing in the Prairies developed in Manitoba to meet the needs of settlement, agricultural expansion and railway construction. Winnipeg grew as the largest manufacturing centre in the region based on its entrepôt role in the original settlement of the Prairies.

By the 1960s this had changed, with the start of the Albertan energy economy and its requirements for, and supplies of, manufactured and processed goods.

Table 4
Number and Distribution of Manufacturing Establishments, Prairie Provinces, 1961-1981

	1961 #	1981 #	% Change 1961-1981
MB	1476	1288	-13%
% of Prairies	39%	22%	
SK	710	764	8%
% of Prairies	19%	13%	
AB	1628	3874	138%
% of Prairies	43%	65%	
Prairies	3814	5926	55%
% of Prairies	100	100	

Source: Statistical Annex, Table 19

In 1961 Alberta accounted for 43% of all Prairie manufacturing establishments. Into the 1980s, Manitoba’s manufacturing establishments declined by 13% while Alberta’s grew by 138%, accounting for 65% of all Prairie establishments by 1981. This trend was even more concentrated based on the value of

Prairie manufacturing production. At the start of the 1980s Alberta accounted for nearly 70% of Prairie manufacturing shipments. In contrast both Manitoba and Saskatchewan’s share of Prairie manufacturing shipments fell.

Table 5
Value and Distribution of Manufacturing Shipments, Prairie Provinces, 1961 – 1981
(\$Millions)

	1961 \$M	1981 \$M	% Change 1961-1981
MB	716,740	4,977,010	594%
% of Prairies	36%	21%	
SK	331,863	2,503,630	654%
% of Prairies	17%	10%	
AB	935,462	16,793,372	1,695%
% of Prairies	47%	69%	
Prairies	19,840,666	24,274,012	1,123%
% of Prairies	100%	100%	

Source: Statistical Annex, Table 20

The 1980s, and particularly the last half of the 1990s, saw further growth and restructuring of Prairie manufacturing. This occurred:

1. As the Prairie economy became increasingly tied, through trade agreements, to the United States and international markets.
2. As the population base of the region expanded.
3. As financial constraints on Prairie manufacturing, like the federal National Energy Program in the 1980s and the Crow’s Nest/WGTA grain freight rate subsidies, were changed and eventually removed in the 1990s.

The value of Prairie manufacturing shipments nearly doubled in both of the last two decades of the 20th century to ship over \$50 billion of product by 1997. The industry continued to concentrate in Alberta; and Manitoba continued to lose its share of Prairie manufacturing. The Saskatchewan share remained static (Table 6 next page).

Most manufacturing shipments were exported to domestic or international markets. A large number of

products now formed Prairie manufacturing shipments. Movements of manufactured products are now much more valuable than the CWB grains that dominated the region's shipment patterns and related transport policies for so many years.

Table 6
Manufacturing Activity
Prairie Provinces, 1980, 1990, 1997

	1980	1990	1997
Manitoba			
# of Establishments	1,311	1,167	1,098
% of Prairies	29%	24%	23%
Value of Shipments (\$M)	4,357.10	6,739.50	9,969.30
% of Prairies	26%	22%	20%
Value Added (\$M)	1,886.90	3,266.50	4,659.10
% of Prairies	31%	27%	22%
Saskatchewan			
# of Establishments	771	809	787
% of Prairies	17%	17%	17%
Value of Shipments (\$M)	2,118.20	3,786.00	6,114.50
% of Prairies	12%	12%	12%
Value Added (\$M)	817.00	1,521.30	2,526.60
% of Prairies	13%	13%	12%
Alberta			
# of Establishments	2,388	2,827	2,804
% of Prairies	53%	59%	60%
Value of Shipments (\$M)	10,520.80	20,048.80	34,675.70
% of Prairies	62%	66%	68%
Value Added (\$M)	3,404.70	7,220.40	13,710.80
% of Prairies	56%	60%	66%
Prairies			
# of Establishments	4,470	4,803	4,689
% of Prairies	100%	100%	100%
Value of Shipments (\$M)	16,996.10	30,574.30	50,759.50
% of Prairies	100%	100%	100%
Value Added (\$M)	6,108.60	12,008.20	20,896.50
% of Prairies	100%	100%	100%

Source: Statistical Annex, Table 19

Between 1980 and 1997 value added production from manufacturing in the Prairies increased by 242% and the value of shipments rose by 199%. This growth was fastest in Alberta where manufacturing shipments more than doubled and value added tripled over the period. Saskatchewan's manufacturing growth was almost as fast, but Manitoba's much slower.

Table 7
Change in Prairie Manufacturing Activity
Prairie Provinces, 1980, 1990, 1997
% Change

	1980-90 %	1990-97 %	1980-97 %
Manitoba			
# of Establishments	-11%	-6%	-16%
Value of Shipments (\$M)	55%	48%	129%
Value Added (\$M)	73%	43%	147%
Saskatchewan			
# of Establishments	5%	-3%	2%
Value of Shipments (\$M)	79%	62%	189%
Value Added (\$M)	86%	66%	209%
Alberta			
# of Establishments	18%	-1%	17%
Value of Shipments (\$M)	91%	73%	230%
Value Added (\$M)	112%	90%	303%
Prairies			
# of Establishments	7%	-2%	5%
Value of Shipments (\$M)	80%	66%	199%
Value Added (\$M)	97%	74%	242%

Source: Statistical Annex, Table 19

Through the 1980s and 90s Prairie manufacturing restructured, increased in size, reduced the number of establishments and developed the foundations for an expanded food and agricultural processing sector. Food industry shipments ranked first in all manufacturing industries in each prairie province.

Food Processing

Prairie food industry shipments in 1997 exceeded \$10 billion annually. The industry has steadily increased its share of both manufacturing shipments and the number of establishments in the Prairie manufacturing industry. Food processing more than doubled in the ten years leading to 1997, generating a large number of products for export shipments to domestic and international markets.

Food manufacturing alone is now a larger industry than CWB grain exports. Significantly, Manitoba showed the fastest growth in food industry shipments

between 1986 and 1997 with a growth rate of 76% over the period.

Table 8
Change in Food Industry Manufacturing Activity
Prairie Provinces, 1986 and 1997

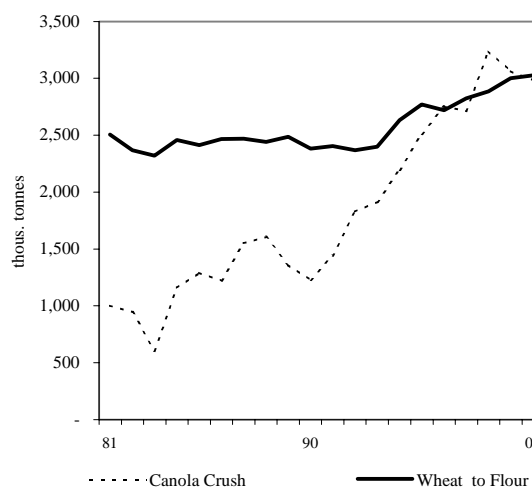
	MB	SK	AB	Prairies
Number of establishments				
1986 Food Industries	69	96	225	390
% of Total	5%	11%	8%	8%
1997 Food Industries	138	86	284	508
% of Total	13%	11%	10%	11%
% change 1986-1997				
Total Manufacturing	-17%	-8%	2%	-4%
Food Industries	50%	-12%	21%	23%
Value of Shipments (\$M)				
1986 Food Industries	518	871	2,954	4,343
% of Total	9%	28%	19%	18%
1997 Food Industries	2,162	1,526	6,682	10,371
% of Total	22%	25%	19%	20%
% change 1986-1997				
Total Manufacturing	43%	50%	56%	53%
Food Industries	76%	43%	56%	58%

Source: Statistical Annex, Table 21

The increase in the amount of prairie agricultural crops processed in Canada has increased domestic demand for Prairie producers. This can be seen in statistics for canola seed processed and wheat milled into flour. The amount of canola processed in Canada has risen approximately in proportion to the area planted to this crop, tripling in the last twenty years.

The amount on wheat milled for flour in Canada has also increased over the last twenty years, although not as spectacularly as has the canola crush. The amount of wheat milled in Canada has increased from 2,506 thousand tonnes in 1980 to 3,097 thousand tonnes in 1999 — an increase of 21 %.

Figure 20
Domestic Wheat Processing and Canola Crush
1980/81 – 1999/2000



Source: Statistical Annex, Table 22

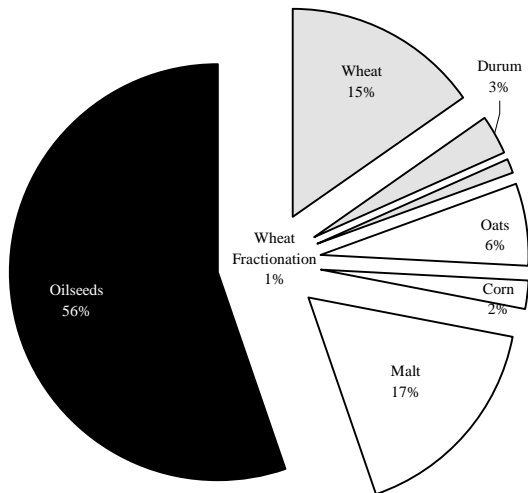
Agriculture and Agri-Food Canada, in 1997, noted:

“ the capacity of the Canadian primary processing industry for grains and oilseed, excluding the primary processing of animal feed, has increased by 51% over the last ten years. This is equivalent to about 20% of the total projected Canadian grains and oilseed production of 63Mt in 1997. Oilseed processing accounts for over three-quarters of the increase, followed by malting barley, corn and oats processing. Increases in processing capacity have generally been concentrated close to where the raw product is produced. As a result, 60% of the total increase in capacity occurred in western Canada. Western Canada now accounts for 48% of the primary processing capacity of grains and oilseeds in Canada.”^c

Western Canadian food processing activity is centred in the Prairies. Grain and oilseed processing alone requires about 6 million tonnes of grains and oilseeds annually. Nearly half of the capacity is to be found in demand for oilseeds, providing a very large local market for Prairie canola production.

Wheat related processing capacity, including fractionation, accounts for less than one fifth of the grain and oilseed-processing capacity today. In fact, wheat processing capacity declined by 10% over the period, while capacity to process oats increased by 244% and oilseeds by 115%.

Figure 21
Distribution of Grains and Oilseeds Food Processing Capacity, Western Canada, 1997
 % of Total Capacity



Source: Statistic Annex, Table 23

Table 9
Processing Capacity for Grains and Oilseeds
Western Canada, 1987 and 1997
 (tonnes per day of raw product)

	1987	1997	% increase 1987-97
Wheat	3,015	2,710	-10%
Durum	360	510	42%
Wheat Fractionation	111	210	89%
Oats	332	1,142	244%
Corn	340	380	12%
Malt	1,495	2,949	97%
Oilseeds	4,550	9,775	115%
Total	10,203	17,676	73%

Source: Statistical Annex, Table 23

The investment in expanded food processing capacity has not been limited to grains and oilseeds. Other grain processing, potatoes, special crops and meats have all received substantial modernization and investment in expansion.

These capacity investments have required a large number of further downstream investments in storage capacity, transportation infrastructure, research and marketing to meet the increasing demands for quality and low cost delivery into highly competitive domestic, North American and international markets.

Meat Processing

In the mid-1990s the Crow/WGTA transport subsidies on regulated grain exports were removed. This led to an increase in feeding animals and meat processing. Early on the federal government noted:

“Low statutory grain rates for transportation grain to port made the value of grain on the prairies artificially high and Canadian processors had difficulty competing with foreign processors who purchased their grain at market value”^d.

The economics for animal production on the Prairies changed as increased access into U.S. markets under NAFTA and to Pacific Rim markets under the WTO combined with low grain prices for livestock feeds. As a result, Prairie animal production and livestock processing capacity, expanded. Significant U.S. and Pacific Rim investments contributed to the growth in meat packing capacity.

The number of feedlots has increased and major Prairie grain companies including the Saskatchewan Wheat Pool, Cargill, and Agricore (formerly the Manitoba Pool Elevators and the Alberta Wheat Pools) have diversified into cattle and hog production for export.

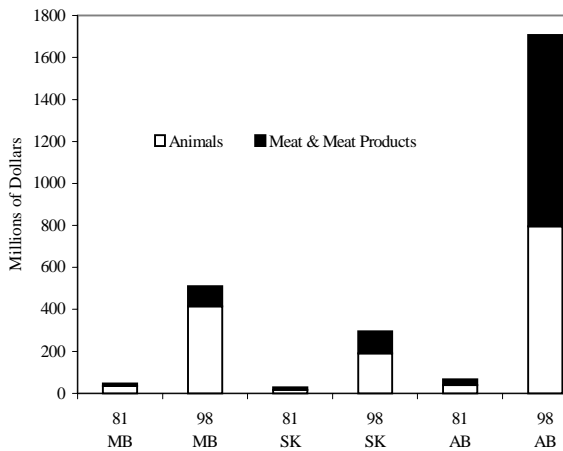
Canadian, American, and Asian investors have made large investments in expanded meat packing capacity. The \$112 million Maple Leaf Foods plant in Brandon and the Taiwan Sugar investments in packing plants in Alberta are examples.

In the 1990s, the Prairies accounted for over one half of all of the growth in the Canadian hog population. Most of the expansion was to be found in eastern Saskatchewan and southern Manitoba.

Perhaps the growth in meat processing can be seen most clearly in the statistics for exports to the United States. By the end of the 1990s live animal and meat exports into the U.S. exceeded \$2.5 billion annually.

Meat processing increased its share of the animal and meat export movement from 36% in 1981 to 44% in 1998 as processing capacity expanded.

Figure 22
Animal, Meat and Meat Product Exports
to the United States, 1981 and 1998



Source: Statistical Annex, Table 24

Industrial Agriculture & Special Crop Processing

Industrial agriculture, turning crops into products of industry, had started to become reality in the 1990s. Ethanol plants based on grains, manufacturing from straw, cosmetics from oats are all small emerging parts of the new Prairie agricultural economy.

Conversion of Prairie agricultural products into a range of natural health and/or food products or nutraceuticals has more recently emerged as a high value added opportunity for some Prairie crops. Oats, wheat bran, barley, lentils, peas and beans all have potential in this market.

Special crops (peas, lentils, beans, and chickpeas, mustard and sunflower seeds) have, for the most part, been sold into export markets and are shipped in containers.

In a growing number of cases, not adequately tracked by the statistics, this section of agriculture has also

been marked by special packaging and marketing. Thus, a large part of the Prairie sunflower seeds will end up in U.S. baseball stadiums as a widely appreciated snack.

Similarly, branded canary and sunflower birdseed is found on bird feeders around the world. These forms of special marketing and packaging are creating a high level of increased value added product, for what had traditionally been sold as a “bulk commodity”

A new emerging part of the new agriculture is biotechnology. Both Saskatoon and Calgary have developed large concentrations of research, development and commercial activities related to a wide spectrum of biotechnology applications and including; fertilizers, pesticides, and genetic engineering for plants and animals.

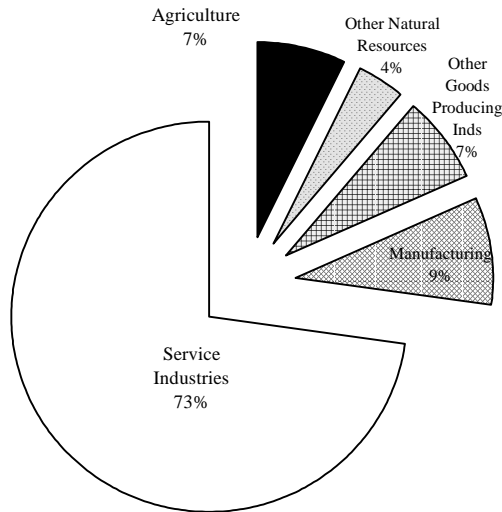
The new industrial agriculture and special crop deliveries have very different transportation requirements. The high value added goods can often carry higher transportation costs, but also require a more sophisticated level of delivery, including customs security for cross border movements, packaging to protect shipments from damage and short delivery times.

These shipping requirements are developing new transportation demands to be integrated with, and accommodated by, the bulk handling system. Generally, they are shifting transport demands from the rails to the roads.

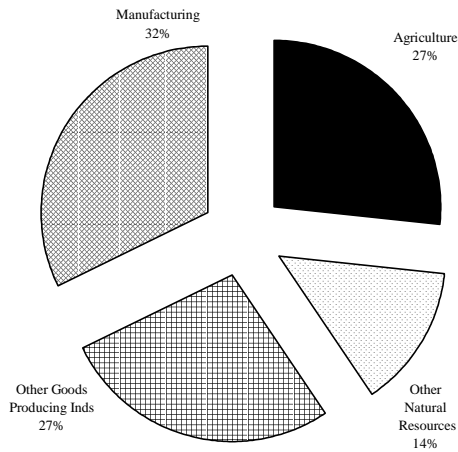
Employment

The changing structure of economic activity and trade in the Prairie Provinces is also reflected in the new employment structure of the region. As in the rest of Canada, most people are employed in the service sector that accounts for 73% of total employment in the three Prairie Provinces.

Figure 23
Distribution of Employment by Sector
Prairie Provinces, 1999
% Share of Total Employment



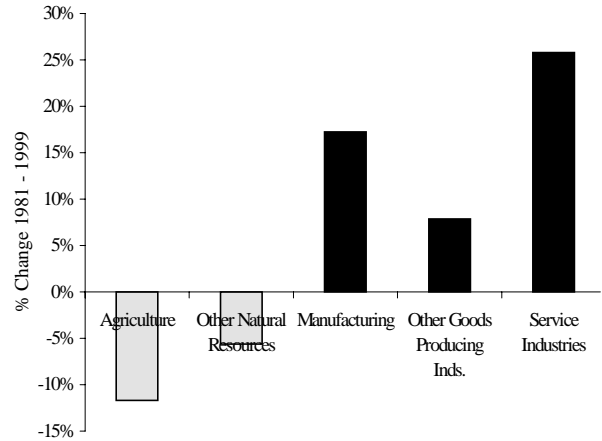
% Share of Goods Producing Employment



Source: Derived from Statistical Annex, Table 25

By 1999, agriculture accounted for only seven percent of Prairie employment. During the 1980s and 1990s, agriculture and natural resource production employment declined by 12% and 6% respectively. In contrast, employment in manufacturing, other goods production and services grew. Manufacturing showed the strongest employment growth of all goods producing sectors of the economy during the period.

Figure 24
% Growth in Employment by Major Sector
Prairie Provinces, 1981 – 1999



Source: Statistical Annex, Table 25

The fastest levels of restructuring of provincial employment are to be seen in Saskatchewan and Alberta. In Saskatchewan, agricultural employment dropped by 28% in the 1980s and 1990s. These losses were partially offset by much smaller gains in the smaller manufacturing sector and the production of other natural resources and services.

Table 10
Prairie Provincial Employment and Distribution by Major Sector, 1999

	MB		SK		AB	
	(000s)	% Δ	(000s)	% Δ	(000s)	% Δ
Total Employment	543	7%	480	10%	1,553	26%
Goods Producing	144	6%	137	-14%	422	9%
Agriculture	37	-10%	68	-28%	83	1%
Other Natural Resources	7	-104%	14	-3%	78	2%
Manufacturing	65	12%	28	5%	134	22%
Other Goods Industries	36	34%	27	-6%	127	4%
Service Industries	398	14%	344	19%	1,131	32%
% Distribution of Total Employment						
Total Employment	100%		100%		100%	
Goods Producing	27%		28%		27%	
Agriculture	7%		14%		5%	
Other Natural Resources	1%		3%		5%	
Manufacturing	12%		6%		9%	
Other Goods Industries	7%		6%		8%	
Service Industries	73%		72%		73%	

Source: Statistical Annex, Table 25

In Alberta and Manitoba, smaller losses of agricultural employment were offset by gains in manufacturing employment and large increases in Alberta of other goods production in the form of energy, forest products and power generation. This new basis for Prairie economic activity has a very different set of transportation service requirements.

The employment base of the Prairies is now highly dependent on the competitive position of the region's export industries. The efficiency with which a growing variety of export products, both processed and unprocessed, can be delivered to markets, underlies the Prairie capacity to both growth and to create sustainable employment.

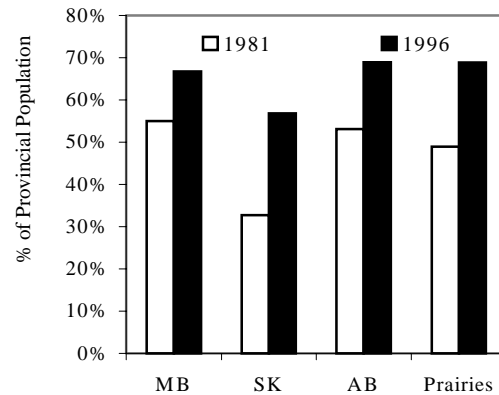
Settlements and Cities

Cities, and in particular the five census metropolitan areas (CMA) of Winnipeg, Regina, Saskatoon, Calgary and Edmonton, are at the centre of the new Prairie economy. Each has developed areas of specialization that allows the centres to be international leaders in their fields. Winnipeg in international grains and more recently communications, Calgary in oil and gas, Edmonton in heavy oils, Saskatoon in mining and agricultural biotechnology and Regina in telecommunications. Increasingly, management and investment decisions for wide hinterlands around each city are being made in the centre. There has been a geographic restructuring of economic decision making to the cities in the new Prairie economy.

People flocked to the five largest Prairie cities in the 1980s and 1990s. The CMA population of the Prairies increased their share of total Prairie population from 49% in 1981 to 69% by the 1996 census. The fastest growth was seen in Alberta, where Calgary and Edmonton each grew by over 800,000 people in this period. However, even in a highly rural province like

Saskatchewan, Saskatoon and Regina continued to grow in a province with a static population.

Figure 25
CMA Population Share of Total Provincial Population, Prairie Provinces, 1981 and 1996



Source: Statistical Annex, Table 2

A similar rapid change in population has been happening in the settlement structure of the rural countryside throughout the Prairies. Smaller centres and villages, often thought to be at the heart of the Prairie agricultural economy, have disappeared. Rural people have chosen to migrate to the larger centres. Between 1981 and 1996, the Prairie urban population living outside the major cities (CMAs) in smaller centres of over 1,000 people, fell by 77% - over 5% each year. The population living outside of the CMAs fell to 5% of total Prairie population by 1996.

Table 11
Urban Population outside the Census Metropolitan Areas, Prairie Provinces, 1981 and 1996

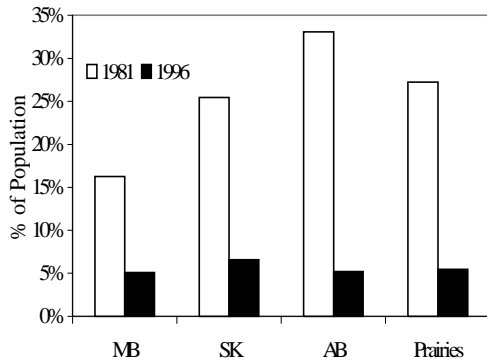
	Population (000s)		% Share of Total Populations	
	1981	1996	1981	1996
MB	167	57	16%	5%
SK	246	65	25%	7%
AB	740	141	33%	5%
Prairies	1153	263	27%	5%

Source: Derived from Statistical Annex, Table 2

The decline in this population was strongest in Alberta, where the non-CMA population fell by 81% between 1981 and 1996. However, the non-CMA

urban population of Saskatchewan fell by 74% and in Manitoba by 66%.

Figure 26
Urban non-CMA Population as % of Total Population
Prairie Provinces, 1981 and 1996



Source: Derived from Statistical Annex, Table 2

Table 12
% Change in Urban Population Outside of CMAs,
Prairie Provinces, 1981 and 1996

MB	SK	AB	Prairies
-66%	-74%	-81%	-77%

Source: Derived from Statistical Annex, Table 2

This new urban structure has new transportation service demands. An increasing amount of processing and manufacturing is in the largest cities. These places have become major multi-modal transportation hubs to address the needs of the diversified Prairie economy. Even rural industries like farming are often managed from the larger cities. Many services and supplies are provided from the urban environment.

FORCES BUILDING A NEW PRAIRIE ECONOMY

The transformation of the Prairie economy has not resulted simply from the continuing readjustments in agriculture, although they are an important part of the story. Rather the widespread pressures of globalization, improved communications, information

and new technology have been applied to Prairie resources. Today the Prairie economy is:

1. Far more than agriculture and, therefore, less dependent on the sector for success, failure and its economic future.
2. A diversified natural resource and processing economy
3. A sophisticated high tech economy.
4. An urban metropolitan economy.

The forces that brought about these changes involve:

1. Regulatory and policy frameworks guiding the regional access to markets and competitiveness.
2. Technological advancement in communications, information and the application of computers.
3. Long-standing social and commercial pressures for change in agriculture.
4. Demography and the economics of opportunity.

Regulatory and Policy Frameworks

Changes in domestic and international policy frameworks have contributed to the restructuring, growth and diversification of the Prairie economy.

Trade and Globalization

In the 1980s and 1990s, public policy changes in trade and agriculture contributed to many of the changes that occurred in the Prairie economy, and in particular, agriculture.

International trade policy under the General Agreement on Tariffs and Trade was liberalized through several agreements that had started under the Kennedy round in the 1960s and continued to the Uruguay Round in the 1990s.³ The World Trade Organisation has continued this process of global

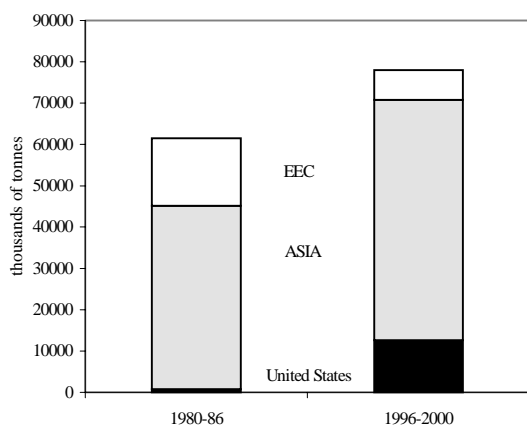
³ The successive rounds of trade liberalization under the GATT have included the Kennedy Round (1960s), the Tokyo Round (1980s), the Uruguay Round (1990s).

trade liberalization that allowed Prairie greater access into Pacific Rim Markets since 1994.

In North America, there were similar developments in the 1980s and 1990s with the Canada - United States Free Trade Agreement (CUSTA) and the North American Free Trade Agreement (NAFTA) that opened up first Canadian and U.S. markets, and subsequently, Mexican markets.

As a result of these developments in trade policy, Prairie markets for both unprocessed and processed commodities shifted from east-west movements within Canada, to north – south movements into the United States, and western movements into the Pacific Rim. For example, traditionally Canadian export grains, mainly originating from the Prairies, were sold to Europe and in recent years to Asia. Recent trade agreements opened access to U.S. and Pacific Rim markets. Accordingly, exports of wheat, durum, barley and canola shifted south and west between the first five years of the 1980s and the last five years of the 1990s. This changing geography of demand held great significance for port storage and handling infrastructure at the west Coast, the Great Lakes and the St. Lawrence Seaway, as well as for modes of surface transportation.

Figure 27
Canadian Exports of Wheat, Durum, Barley and Canola, 1980/86 and 1996/2000, by Region



Source: Statistical Annex, Table 26

This shift has resulted in growing north – south traffic and requirements for expanded shipment facilities at the West Coast. Shipping business for eastern Canada has declined as shipments to Europe and the former Soviet Union have fallen.

Table 13
% Of Wheat, Durum, Barley and Canola Exports by Region, Crop Years 1980/86 and 1996/2000
% Of Total Shipments

Destination	US	Asia	EEC
1980-86	1%	38%	14%
1996-2000	11%	51%	6%
% Change	10%	13%	-8%

Source: Statistical Annex, Table 26

Federal Western Transportation Policies

In the 1980s and 1990s, changes to western transportation policies of the Government of Canada, started the process to reform the movement of regulated grains in the Prairies. As early as the 1960s the MacPherson Royal Commission had shown that the railways were losing money carrying grain under the 1897 Crow’s Nest Statutory freight rates. A reform process was started that was to take decades and included:

1. The Hall Commission of Inquiry into Branch Lines.
2. Costing reviews by the Snavely Commission in the 1970s.
3. Two National Transportation Acts in the 1980s and 1990s, both advocating market pricing and competition.
4. the Western Grain Transportation Act reducing export subsidies in the early 90s.

These activities finally resulted in a decision and schedule to remove the export and domestic (eastbound only) transportation subsidies in the 1995 federal budget. Since that time the process of reform of the grain handling and transportation system has continued with:

1. A statutory review of western rail rates on regulated grains under the Canada Transportation Act
2. The Estey and Kruger reviews on system efficiency and reform.
3. Negotiations and legislation to develop commercial operating practices between the Canadian Wheat Board and the grain handling and transportation industry.

Provincial Rationalization and Deficit Management Policies

Prairie provincial governments have for decades practiced many rationalization and consolidation practices. These have included school consolidations, health care rationalization, municipal and public service centralization. The effect of these activities has been to:

1. Systematically withdraw services from smaller communities.
2. Concentrate public service employment and income into larger centres.
3. Reduce public spending on rural infrastructure.

These changes in the geography of provincial public service delivery actively advanced and sustained the process of rural settlement decline.

Public to Private Ownership

The 1980s and 1990s saw a major shift away from public ownership in the key sectors of the Prairie economy. With privatization came access to new investment, markets and productivity gains to create internationally competitive companies. Important Prairie operating companies like PetroCanada, the Potash Corporation of Saskatchewan, Pacific Western Airlines, InterProvincial Steel Corporation, Canadian National Railway and Cameco were sold to investors.

With privatization came global and continental growth for many of these companies creating new networks of information and markets with related shipment and transportation requirements. Most of these companies became international leaders in their fields and opened the region to new sources of investment capital and market sales.

Foreign Government Support to Agriculture

European and U.S. government support to agriculture has changed the commercial rationale for growing wheat and barley in the Prairies. In many parts of southern Saskatchewan and southern Manitoba farmers report wheat and barley does not yield a profit.

Recent OECD data for government support to agriculture show increases in the subsidies paid to producers in several of the countries that compete with Canada for international sales of grains; more particularly, Australia, the European Union (EU) and the U.S. The increases in the amounts of these subsidies to agriculture between 1986-88 and 1999 were 22%, 18%, and 41%, in each of these areas respectively. By contrast, Canada *reduced* its support to agriculture in the same period by 22%.

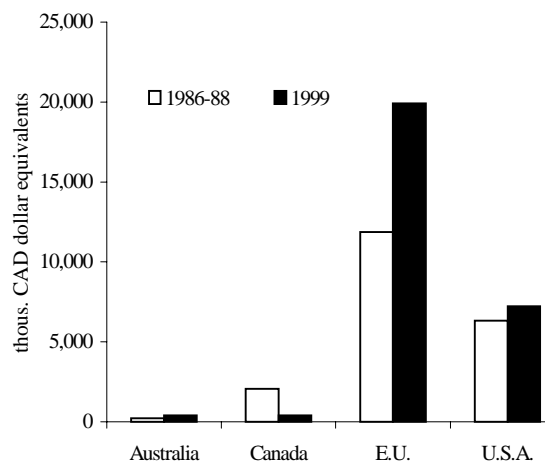
Table 14
International Government Support to Agriculture,
1986/88 and 1999

Country		1986-88	1999	% Change
Australia	A\$ m	2,194	2,686	+22%
Canada	CAD\$ m	9,412	7,361	-22%
E.U.	Euro m	100,301	118,137	+18%
USA	US\$ m	68,254	96,530	+41%

Source: Statistical Annex, Table 27

For Prairie wheat producers, the levels of government support fell even more and underlie the present Prairie farm income crisis. Government support to wheat producers in Australia and the EU increased in this period by 75 and 68%, respectively, while in Canada they *decreased* support by over 80%.

Figure 28
Government Support Payments to Wheat Producers
1986/8 and 1999 in thousands of Canadian dollars



Source: Statistical Annex, Table 28

Some of the decline in Canada’s support of wheat producers relates to the elimination of the Crow Benefit (a subsidy on the transportation of Prairie grains by rail to Thunder Bay and West Coast ports) in 1995. This subsidy, which amounted to about \$750 million annually when it was eliminated, covered approximately one half the cost of Prairie grain movements by rail to Thunder Bay and West Coast ports.

Table 15
International Government Support to Wheat,
1986/88 and 1999

Country		1986-88	1999	% Change
Australia	CAD\$ m	223	389	+75%
Canada	CAD\$ m	2,047	395	-81%
E.U.	CAD\$ m	11,848	19,898	+68%
USA	CAD\$ m	6,314	7,222	+14%

Source: Statistical Annex, Table 28

It is perhaps notable in terms of the current financial stress on farmers in the Prairies that the federal government chose the year of the highest wheat prices in the last two decades to abandon the Crow Benefit. Prices for wheat increased by about \$70 per tonne, from \$261 per tonne to \$330 per tonne, between the crop year 1994/95 and the following crop year 1995/96. Thus, the increase in freight rates

necessitated by the elimination of the Crow Benefit, about \$25 per tonne, went largely unnoticed until at least two years later when the revenue pools for the next crop year, 1996/97, closed. By then wheat prices had fallen to \$259 per tonne. Wheat prices have tended lower since.

This change also reflects a new political reality in the Prairies. There are now fewer farmers than ever before. Thus, the “farm vote” is less in magnitude and importance. As well, since the early 1990s the federal government has been elected primarily in eastern Canada and this has influenced the amount of federal funding available to farmers in the West.

International trade agreements, including the World Trade Organization Agreement signed in 1994, and the North American Free Trade Agreement signed in 1992, influence and, in some cases, constrain federal (and provincial) funding of particular sectors of the economy.

The removal of the Crow Benefit/WGTA subsidy has been a factor influencing the shift from export grains to livestock in the Prairies, but it is not the only factor. International prices for these grains, influenced, as they are by Australian, EEC and U.S. producer subsidies, also have a significant influence.

The shift in Prairie farms from wheat to other more profitable crops and to more livestock has been in large part a commercial response by farmers to the price realities of the global marketplace for all of their products. For many farmers, the regulated grains of wheat and barley have not been competitive with the alternatives.

Technological Advancement

The Prairies have adopted a wide range of new technologies. These have included the information highway into global markets, new value added

industries and the application of new technology to traditional industries.

Information Highway and Global Markets

The 1980s and 1990s have seen widespread application of computers on the now global information highway. Industries that had once been national industries like the oil and gas and mining industries expanded their reach.

On unregulated crops, farmers have been able to sell well beyond their borders. Video cattle auctions have become a regular part of the agricultural information infrastructure. Parts for equipment are supplied from national and even global sources; essentially bypassing the old community based settlement hierarchy, particularly in the rural areas.^e This has removed some of the traditional central place theory rationale for the rural settlement structure.

Changes in Agriculture

Increased Livestock Numbers

One of the most significant changes in agriculture in the Prairies over the period examined is the increase in livestock numbers. The increase in both cattle and hogs in the area results in increased demand for grains and oilseed meals (protein).

The local use of both grains and, to a lesser extent, oilseeds to feed the livestock is transported by truck.

Further, when the production of livestock is complete, the finished livestock move by truck to slaughter, and as meats, again by truck, for the most part, wholesale and retail distribution. Thus, there is a change in mode, from rail to truck, when this change from export grain sales to livestock production takes place. This has clearly been happening, and may continue in

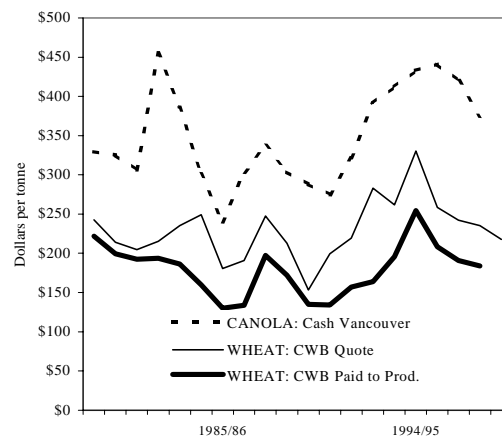
the Prairie Provinces, if product prices and input costs continue their current pattern.

Returns to Farmers

Returns to producers for grains grown in the Prairies have varied widely over the last two decades. For example, 1 CWRS Wheat returned \$222 per tonne in Crop Year 1980/81 (basis St. Lawrence Ports) and \$254 per tonne in 1995/96.

In contrast, the market returned as little as \$134 per tonne to producers in 1987/88 and again in 1991/92, and even less, \$130 per tonne in 1986/87.

Figure 29
Prices for Canola and Wheat, 1981/2 – 1999/00



Source: Statistical Annex, Table 29

The most recent return paid by the Canadian Wheat Board for Prairie wheat was \$184 per tonne in 1998/99. This amount is \$70 per tonne below the high of only four seasons before. Year to year variations in the value of this crop fall in the range minus \$46 to plus \$63 per tonne. This wide annual variability in the amount received by producers for this crop is a major factor in the economics of growing wheat.

Canola prices have also shown wide fluctuations over the last two decades. Highs in the range of \$441 to \$455 per tonne (basis Vancouver) occurred in 1983/84 and again in the mid-1990s. Lows, between \$240 and \$275 per tonne, were experienced in 1986/87 and again in 1991/92. Year to year variations in these prices over the last two decades fall in the range minus \$84 to plus \$148.

Prices obtained in international markets and their variability have significant effects on farmer's returns and subsequent production and investment decisions.

Change in Customer Mix and Demands

An examination of the mix and demands for products from Canada's top five purchasers of grains and oilseeds products gives rise to some notable observations.⁴

Wheat sales have changed from being oriented toward USSR, China and the UK to Japan, and the U.S. Further, the sales to the top five purchasers of wheat have declined by 18% over the years 1980/81 to 1999/00.

Sales of durum wheat are still greatest to Algeria, but have shifted from Italy, and from the USSR to Morocco, Venezuela, and the U.S. Durum wheat sales to the top five country purchasers are up 64% over the twenty years reviewed here.

International sales of barley to the top five buying countries have fallen significantly — 47% — with the loss of sales to the USSR over the period. Among the other sales of barley there has been rotation away from Italy, Poland and Israel to greater sales to the U.S. and fewer sales to Japan, with new demand from China and Saudi Arabia.

⁴ Details appear in Statistical Annex Table 32.

Sales of canola and canola products to the top five purchasers internationally are up significantly, about 200%, in the period. Sales of canola have doubled. Japan is still the largest purchaser of canola, but now China, Mexico and the U.S. have joined the list of significant purchasers of this product.

There have been large gains in the sales of canola oil and meal to the five top customers of these products, too. The amount of canola oil sold to the top five customer countries has more than tripled, with the U.S. now being the largest single purchaser. The same is true for canola meal. The U.S. is now the largest purchaser.

Sales to the largest five international customers have increased six times between 1980/81 and 1999/00.

These latter sales are likely the result, at least in part, of increased oilseeds crushing in Canada and the North American Free Trade Agreement.

Scale of Farming

Changes in the technology of farming in the Prairies have influenced the scale of farming. Bigger machines and equipment, e.g. tractors and combine harvesters, and their current costs, mean that more acres need to be farmed to spread these overheads. The cost of land has risen considerably. This means a greater focus on economic returns that can be improved at larger scales of operations. Similarly, larger scale in confinement livestock operations for hogs and beef cattle operations also bring efficiencies.

The changing role of agriculture has been affected by the changing attitudes of the public towards the sector. In recent years there has been little public support for agricultural subsidies in Canada. Concerns of health, safety and the environment have distanced the farm community from their urban markets, and left farmers with weaker voices with

decision-makers and politicians in government. The farm community itself has contributed to these issues by offering distinct, and often loud, and conflicting views from many sectors and regions of the country on the requirements for agriculture.

Increasing size of farms has been a major factor affecting the level of the rural population and the amount of capital required to run the farm in the absence of a large rural labour force of yesteryear.

Demographics, Urbanization and Opportunities

Demographic change in the Prairies has been characterized by large movements of people from the land into the cities and from the Prairies to other parts of Canada, particularly to Ontario and to British Columbia.

Millions of individual choices have been made that have resulted in the depopulation of the rural prairies. Three factors, however, can be seen as central to the change. These are:

1. The economics of individual movement were favoured by low prices for gasoline and automobiles. Rural prairie residents could travel further to improve their level of service. In doing so they made an increasing number of choices in favour of larger centres with more variety and choice in terms of both goods and services.^f
2. Aging Prairie residents leave the region to avoid both the harsh winters and/or to be closer to family and grandchildren.
3. Opportunity, in the forms of both jobs and incomes, has been better in other parts of Canada. This has been particularly true for Saskatchewan and Manitoba throughout the period.

In a major study of the changing role of rural communities in Saskatchewan between 1961 and

1990 Stabler, Olfert and Fulton at the University of Saskatchewan concluded:

Most of the consolidation and concentration of the past fifty years can be attributed to changes in technology in agricultural and other primary activities, as well as in the transportation, communications and distribution industries.

.... Provincial and federal government policies have also contributed to the reorganization and concentration of activity in fewer, larger, centrally located places. Rural people now routinely shop in distant communities where greater variety and lower prices are available.

.. Rural and small community decline clearly cannot be attributed solely, or even primarily, to the depressed grain markets of recent years. For many, the process is irreversible. Population decline, coupled with the loss of infrastructure and commercial outlets, has gone beyond the point where an increase in agricultural (or other) income would reverse their fortunes. Such communities typically lie within the market area of a larger center. Investors, private and public, attempt to build on existing strengths rather than to deliberately oppose established trends. Thus, several hundred of Saskatchewan's smallest places appear destined to eventually disappear; though the process may be spread over many years.^g

PRAIRIE TRANSPORTATION A Changing Requirement

The Prairie Provinces are all a long way from major markets. This is particularly true for products sold overseas. Tidewater is at least 600 miles away going westward, and even further going east. Efficient and effective transportation to these destinations is therefore important for all types of exports.

Conversely, there are transportation cost advantages to sales of Prairie goods and services to the United States of America.

The basic income generating structure of the 21st century Prairie economy is founded on exports to international markets and therefore also on the price competitiveness for a wide range of industries to access those markets. This modern, diversified Prairie economy today has a wide variety of products to be shipped to meet increasingly tighter customer deadlines for delivery, quality control and financial guarantees. Traditional patterns of bulk movements to distant markets no longer dominate the Prairie economy.

In a region geographically distant from its export markets, the cost of transportation has always been an important factor in the competitiveness of the Prairie economy. However, in non-bulk shipments, and increasingly in bulk movements, management practices to improve logistics throughout the value chain from producer to customer have become standard practice. The result has been a steady decline in the real cost of movement and higher returns to both shippers and suppliers and lower prices for customers.

The traditional transport infrastructure, policy, legislation and regulations, developed originally around the export grain economy of the first half of the 20th Century, holds little relevance for the complex trade and movement requirements of today's diversified Prairie economy.

The forms of administered movements, still practiced in large part by the Canadian Wheat Board (CWB), seem anachronistic in a transport world of just-in-time shipment, differential pricing, reduced inventories and market rewards and penalties for efficiency.

Most significantly, the institutional structure for transportation in export grains represents a serious impediment to the development of efficient and competitive transportation logistics in the more

rapidly growing non-board agricultural products sector of the Prairie economy.

The new Prairie economy has dramatically increased the number of transportation requirements of its economy. The economic health of the region depends on a number of often competing modes of transportation, including roads and trucking, rail, water, air and others, including pipelines.

Table 16
Export Shipments
By Mode of Transportation, 1999

	\$ Millions			
	MB	SK	AB	Prairies
Road	4,310	1,819	7,232	13,361
Rail	1,220	2,094	3,700	7,014
Water	1,408	4,351	5,615	11,374
Air	112	36	1,040	1,188
Other	932	1,616	16,845	19,393
Total	7,981	9,915	34,431	52,327

Source: Statistical Annex, Table 30

In 1999 over \$52 billion shipments moved from the Prairies into export position. Traditionally railways have been the primary mode for Prairie exports movements. This is no longer the case as other modes such as pipeline have become the major mode of export. Railways, however, remain important, carrying some 35% of the export shipments in 1999 and the origin for many water exports through the West Coast and the Great Lakes.

Table 17
% Distribution of Export Shipments
By Mode of Carrier from Prairie Provinces, 1999
Adjusting for Water Movements.⁵

	% of Total Shipments			
	MB	SK	AB	Prairies
Road	54%	18%	21%	26%
Rail	33%	65%	27%	35%
Air	1%	0%	3%	2%
Other	12%	16%	49%	37%
Total	100%	100%	100%	100%

Source: Statistical Annex, Table 30

⁵ Water movements of Prairie exports are through West Coast ports and the Great Lakes outside of the Prairies after rail movement to water transshipment points.

There has been a steady shift in the 1990s away from rail towards trucking. Between 1988 and 1999 truck increased its exports by 324%, almost double the 162% increase achieved by rail exports.

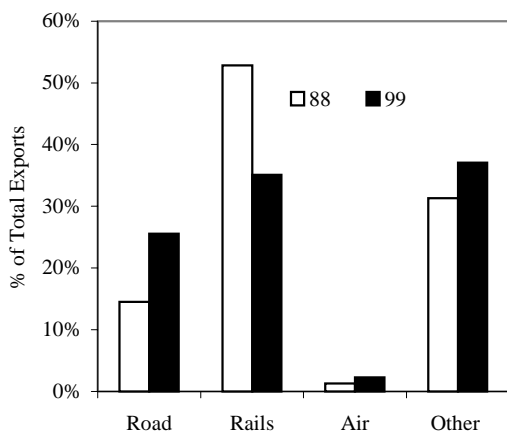
Trucking's share of total Prairie exports increased from 15% to 26% between 1988 and 1998. In contrast, the railways' share of Prairie export trade fell from 53% in 1988 to 35% in 1999.

Table 18
Prairie Province % Increase in Exports by Mode
1988 – 1998

	MB	SK	AB	Prairies
Road	219%	250%	466%	324%
Rails	346%	196%	118%	162%
Water	25%	13%	47%	29%
Air	19%	96%	500%	315%
Other	1,171%	142%	178%	185%

Source: Statistical Annex, Table 30

Figure 30
Share of Prairie Exports by Mode, 1988 and 1999



Source: Statistical Annex, Table 30

Detailed review of the export shipments from the Prairies into both domestic and international markets reveals very clearly the need for transportation services to meet the needs of an extremely diversified economy.

For many years both federal and provincial transportation policy towards the Prairies focused on the needs of the export grain industry and, in particular, the administrative practices pursued for pricing and allocating resources. In the 1990s, major changes to freight rate subsidies in the form of the Crow's Nest Freight rates, feed freight assistance and the Western Grain Transportation Act were made. Similarly, both the National and the Canada Transportation Acts were revised to incorporate principles of competition, remove many aspects of statutory rates and develop more commercial and competitive transportation operating procedures. Most recently Justice Willard Estey^h undertook a major review of changes required for improved grain transportation efficiency, followed by the Kroeger Inquiryⁱ and consultation.

In many respects this focus on federal and provincial transportation policy has been preoccupied with a declining part of the new Prairie economy. For example, review of commodities exported by Prairie Provinces in 1998 shows that they are no longer dominated by the CWB's export grain movements, even in Saskatchewan. Overall grain exports accounted for only 5% of total Prairie exports. Grain only retains its number #1 export spot in Saskatchewan, and only by a very small margin.

Table 19
Grains and Leading Export Sectors, 1998

	MB	SK	AB
Total Exports (\$M)	17,819.4	17,797	57,647
Grain Exports (\$M)	896.7	2632.6	1478.2
<i>Grain as % Total</i>	5%	15%	3%
Ranked Goods Exports			
Highest	Machinery & Equipment	Grains	Mineral Fuels
Grains	4	1	6

Source: Statistical Annex, Table 31

As we enter the 21st century, rail is no longer the primary mechanism for grain assembly in the Prairies. This is, in part, the result of larger scale operations in both production of grains and in their handling at elevators.

In the 1920s, delivery was made to hundreds of country elevators located close to grain farms, and thereafter, it moved by rail to most destinations. Today, larger deliveries, from larger grain farms are made in big trucks, to fewer, much larger high throughput elevators, each of which is capable of loading multiple rail hopper cars. As well, rail transportation technology has seen the introduction and use of large steel and aluminum hopper cars to move grain. These cars are not suitable for use on some branch lines. These considerations mean that the role of rail in Prairie grain movements is now primarily long haul to exporting ports.

The growth of food processing in the Prairie economy in the 1980s and 1990s is shifting demand for transportation services from rail to road. Increased red meat production (cattle and hogs) in the form of beef and pork requires smaller movements of products in refrigerated vehicles. Live animal movements require the free airflow provided for in special purpose trucks. Agriculture and Agrifood Canada have commented on the changing transportation requirement in the red meat packing industries stating:

“In the first half of the 20th century, rail transport dominated the movement of livestock to centralized packers near consumers. Today, the trucking industry links the livestock producers in the system to the packing industry and now virtually all livestock moves by truck. Typically, trucks utilizing specialized vans for each animal species can offer more rapid, reliable and humane transport.”¹

The technology of refrigeration has significantly affected the amount and location of meat processing activities. Refrigeration allowed processing to move closer to regions of production like the Prairies and to

access distant markets in eastern Canada, the United States and, particularly for pork in the 1990s, the Pacific Rim. Refrigerated trucks, trailers and containers are the current predominant modes used for transporting meat products.

Meatpacking removes carcass and bone from animals and reduces weight for shipment. Refrigeration has therefore allowed packed meats to be shipped over longer distances for the value added processed portion of the animal. Meatpacking shifted the geographic focus of packing from consumer regions to the areas of production, like the Prairies. This reduced freight costs on animals and as well as feed shipment costs.

The economics of feeding grains for red meat production and processing therefore also carries consequences for the modal demand of transport services in the Prairies, increasing road demands while reducing grain shipments by rail.

In many sectors of the Prairie economy use of information technology, computers, advanced communications, just in time ordering, storage and delivery are commonplace through most of the Prairie transportation system, with the one exception of CWB grains.

In the case of the CWB export grains, the transportation system, regulation, pricing, and administration remains structured around the administered markets of an earlier Prairie economy that has long since gone. The need for new investment in transportation infrastructure has been met in most modes of Prairie transportation. New bulk storage, container ports and transshipment facilities have been built for both bulk and manufactured goods. Trucks have grown larger to directly compete with railways.

Throughout the Prairie economy goods are being moved on a daily and hourly basis to many market

destinations from many points of origin. These movements are competitive both between and within modes. They provide consumer goods into the region and take a growing range of processed and unprocessed exports to local and distant markets.

Within the now broad competitive framework of Prairie transportation policy, export grain transportation and handling management and policy remains an anachronism from the past. The prairie grain handling and transportation and handling sector is urgently in need of new road, rail, capacity and storage investments in the right locations. Yet, unlike elsewhere in the rapidly growing Prairie economy, governments have systematically worked to slow the process of change towards competitive markets.

In all parts of the Prairie transportation system there is, where feasible, multiple use of modal infrastructure where several, and often many, industries share the costs of their transport infrastructure. This would also be the case in grains, except for the absence of federal or provincial road investments and a continuing focus on the single purpose use of Prairie rural railway branch lines for export grains.

Canadian transportation systems have been important contributors to obtaining, retaining and improving the international competitive position of important Prairie export industries like potash, coal and forest products. In grains, however, the slow pace of regulatory reform of transportation has contributed to an already difficult agricultural environment. As the Prairie economy continues to grow, it is doing so without the benefit of a fully efficient and competitive export grains handling and delivery system. Unfortunately this contributes to the small and declining share that the sector now holds in the Prairie economy and export trade.

Some Consequences for Transportation

A diversified Prairie economy has a requirement for transportation infrastructure that can provide for all commodities. Multi-use of the infrastructure reduces costs and increases efficiency. A single purpose transportation system is no longer appropriate for the needs of either Prairie agriculture or its wider economy.

For many years the regulatory structure for Prairie transportation has been dominated by the needs of the export grain sector. The Canada Transportation Acts and their predecessors, the Canadian Wheat Board Act and federal and provincial government policies all discriminated in favour of export grains.

In the 1980s and the 1990s it became apparent that grains no longer dominated the transportation flows, but that many other modes were being used for exporting goods, including roads, pipelines and even water. Increasingly, all of these sectors were deregulated to allow the growth of competition and competitive pricing. In contrast, the export grain sector remained mired in an incredibly slow process of change.

The consequences of not deregulating change have been serious. Grains have attempted to base their transport services on a special purpose network — a single commodity, single mode network, particularly for the rural collection system on the branch lines. The economics of single purpose modes has long disappeared over most of the rest of the Prairie economy.

Institutional Frameworks

There continues to be a concern amongst grain farmers in the Prairies regarding access to transportation for their products. This was one of the original reasons for Canadian Wheat Board involvement in the allocation of railway cars to

elevator sites for loading. This issue remains. It will have to be accommodated in any new grain-by-rail policy. However, with fewer and larger elevators, all independent of the railways, the potential for adequate commercial and competitive solutions to grain transportation issues would appear to be better than previously, and getting more so as further consolidation of the grain handling and transportation industry occurs.

CONCLUSIONS

This review of changes in the structure of the economy of Prairie Canada shows clearly the region is no longer dominated by the export of regulated grains. Indeed, agriculture itself has shifted away from producing regulated export grains, choosing to grow and adopt production and marketing practices that can yield a higher return to farmers. Farmers have chosen to increase production of oilseeds and special crops, deliver locally to processing facilities, feed to animals and to leave agriculture.

These changes in the rural economy in the 1980s and 1990s are not new. They have continued through much of the 20th century. In the 1980s and 1990s, however, the Prairies have moved in a major way to meet one of its long-term goals: that of economic diversification. This has been particularly true for agriculture. Oilseeds, special crops, feeding livestock, processing crops and livestock locally, and marketing, all have contributed to diversifying agriculture and has increased returns to farmers in the period.

Entering the 21st century, the transportation requirements in the new, more diversified, Prairie economy is changing rapidly. Increased demands for local supplies of agricultural products have shifted the demand for agricultural transport services away from bulk transportation towards smaller movements by truck that provide high levels of quality control, such as refrigeration and quicker delivery, and which allow

lower inventories and fast turnaround. Container movements have become relatively more important and profitable than hopper car movements. Increasingly, the Prairie transportation is multi-modal and based on shared capital, in which many products from many sectors move over the same road or rail infrastructure, allocating transport resources and shipments with market pricing.

Federal and provincial transportation policies towards regulated export grains have not adjusted to the realities of the new Prairie economy. Their existence affects the movements of all grains and other commodities on the railways. The federal process of western grain transport reform remains founded in the theories of administered markets and transport resources. Section II of the Canadian Wheat Board Act sets up a conflict of interest between the Board, grain companies and the railways.

With the exception of Alberta, the Prairie provinces have not invested in a new road infrastructure to meet the growing demands for trucking in both agriculture and other growing sectors of the economy.

The inefficiencies that remain in western grain transportation system are part of the farm financial crisis in the rural Prairies. Export delivery charges on regulated grains are already taking a high share of the market price of the product, leaving low returns for farmers. Farmers realize higher returns by growing higher value crops, reducing transport costs through local delivery for feed and/or processing and by moving away from regulated grains.

Ironically, Prairie transport policy for export grains has left that sector of agriculture, the one most dependent on transportation, in a situation where transport and handling costs to Vancouver are approaching 25% of the Vancouver price and efficiencies in the grain handling and transportation system are lacking.

In the 20th century, regulated grain transportation policy was far too slow to adjust to the changes in the market. In the 1960s MacPherson identified many of the problems in the system. Forty years later many of these problems still persist. Continuing inefficiencies in the system have contributed to the weakness in the Prairie export grain economy. More significantly, the uncertainty regarding future policy results in deferred investment and lost opportunities for efficiency gains.

The diversified Prairie economy will continue to grow, change and adjust. New products, new markets, new technologies will characterize the Prairie economy in the years ahead. In this environment, a single purpose, single mode transportation policy for export grains is an anachronism.

In most sectors of the economy, transportation policies are based in the special needs of particular modes, products or regions. They provide these sectors with an operating framework to allow low cost, efficient, competitive transportation services to meet the commercial needs of the marketplace. These concepts are fundamental to the Canada Transportation Act⁶.

The administered, single purpose, single modal transport system continues to operate at the heart of the Prairie multi-modal transportation system. Increasingly, retaining the existing transportation policies for export grains place unnecessarily high transportation costs on the grain sector limit the development of a fully integrated system of

transportation for all products produced within the Prairie region.

In the 21st century, Prairie Canada will require transportation services that can meet the rapidly changing needs of its now highly diversified Prairie economy. These needs are for multi-modal, continental services with Pacific Rim connections for the export of bulk and processed or manufactured products from a wide range of sectors of the economy. These transportation services must be able to accommodate the new investments that are and will be made in infrastructure, carriers and containers and should not be constrained by the transport policies that limit change in the export grains' sector.

A New Prairie Transport Policy Framework

Transport policy towards the new Prairies needs to:

1. Remove limitations on agricultural change and growth.
2. Provide market based grain handling and transportation systems in a multi-modal system.
3. Provide fair, flexible multi-modal competition.
4. Invest in new transportation infrastructure for the agricultural and non-agricultural parts of the new Prairie economy.

A new transportation policy for the Prairie economy would therefore:

1. End the transportation policy preoccupation with export wheat and barley.
2. Remove Part II of the CWB Act.
3. Attend to the needs of the new Prairies including those of:
 - i) new crops
 - ii) export of live animals and of animal products
 - iii) processed foods
 - iv) manufacturing

⁶ Section V. of the Canada Transportation Act states:
(b) competition and market forces are, whenever possible, the prime agents in providing viable and effective transportation services,
(c) economic regulation of carriers and modes of transportation occurs only in respect of those services and regions where regulation is necessary to serve the transportation needs of shippers and travelers and that such regulation will not unfairly limit the ability of any carrier or mode of transportation to compete freely with any other carrier or mode of transportation,
Canada Transportation Act, 1996, Section V.

- v) the rest of the new Prairie Economy

Such a single policy framework for Prairie transportation can promote efficiency and competition for the whole Prairie economy.

Since settlement, Prairie Canada has wished to see a higher level of processing of its agricultural and natural resources. In part, the Prairie call for the diversification of its economy grew from:

1. a reaction against the National Policies of Central Canada;
2. a wish to remove the booms and bust of an economy tied to just a few commodities and the wide swings in prices of those commodities; and
3. sound economic judgment to capture more value added jobs and incomes in the region.

Through the years, Canada's western transportation policy preoccupation with export grains has worked against diversification of the region. Today, the export grain sector of the Prairie economy has declined in significance because of a combination of world market conditions, technological change in agriculture and new opportunities both within agriculture and the Prairie economy at large.

The time for special transportation policies for export grains has passed. The time for a comprehensive multi-modal, multi-product Prairie transportation policy based on competition and market pricing has come. This is now necessary to meet the needs of the new Prairie economy.

For too long now, Prairie transportation policies have focused on protecting the past. Today, the Prairie economy is a forward-looking economy that has diversified, and looks to continued growth and change beyond its grain based agricultural roots. Both federal and provincial transportation policies towards the region should now break from the past to

support the new Prairie economy. This requires a comprehensive transport policy to provide for the multi-modal transport needs of the widely diversified products of the new Prairie economy. Retaining the status quo is no longer an option.

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Table 1 – Prairie Population, by Prairie Province, 1871 - 1951

Year	thousands of people				% Share of Total Population				
	MB	SK	AB	Prairies	Year	MB	SK	AB	Prairies
1871	25	n.r.	n.r.	25	1871	100%	n.r.	n.r.	100%
1881	62	n.r.	n.r.	62	1881	100%	n.r.	n.r.	100%
1891	153	n.r.	n.r.	153	1891	100%	n.r.	n.r.	100%
1901	255	91	73	419	1901	61%	22%	17%	100%
1911	461	492	374	1327	1911	35%	37%	28%	100%
1921	610	758	588	1956	1921	31%	39%	30%	100%
1931	700	922	732	2354	1931	30%	39%	31%	100%
1941	729	896	796	2421	1941	30%	37%	33%	100%
1951	776	832	940	2548	1951	30%	33%	37%	100%

Source: Statistics Canada, Census of Population, Various Years. Note: n.r. = not reported, included in Manitoba.

Table 2
Urban Rural Population, Census Years, 1901, 1931, 1951, 1981, 1996 and 2000, (thousands)

MANITOBA						
	1901	1931	1951	1981	1996	2000
MB Total						
# (000s)	255	700	777	1026	1114	1149
%	100%	100%	100%	100%	100%	100%
MB CMA						
#	42	219	236	564	743	681
%	16%	31%	30%	55%	67%	59%
MB Urban						
#	70	316	440	731	800	n.r.
%	27%	45%	57%	71%	72%	
MB Rural						
#	185	384	337	296	314	n.r.
%	73%	55%	43%	29%	28%	
MB Farm						
#	n.r.	n.r.	219	96	80	n.r.
%			28%	9%	7%	
MB NonFarmRural						
#	185	384	118	200	234	
%	73%	55%	15%	19%	21%	

Source: Census of Canada, Various Years, SC 93-357 XPB, 92-901

CMA = Census Metropolitan Area

Table 2 Continued
Urban Rural Population, Census Years, 1901, 1931, 1951, 1981, 1996 and 2000, (thousands)

SASKATCHEWAN						
	1901	1931	1951	1981	1996	2000
SK Total						
# (000s)	91	922	832	968	990	1023
%	100%	100%	100%	100%	100%	100%
SK CMA						
#	2	96	125	317	562	433
%	2%	10%	15%	33%	57%	42%
SK Urban						
#	14	291	252	563	627	n.r.
%	15%	32%	30%	58%	63%	
SK Rural						
#	77	631	579	405	363	n.r.
%	85%	68%	70%	42%	37%	
SK Farm						
#	n.r.	n.r.	399	180	146	n.r.
%			48%	19%	15%	
SK Non-Farm Rural						
#	77	631	180	225	217	n.r.
%	85%	68%	22%	23%	22%	
ALBERTA						
	1901	1931	1951	1981	1996	2000
AB Total						
# (000s)	73	731	940	2238	2699	3011
%	100%	100%	100%	100%	100%	100%
AB CMA						
#	8	163	289	1188	2002	1897
%	11%	22%	31%	53%	74%	63%
AB Urban						
#	18	279	450	1928	2143	n.r.
%	25%	38%	48%	86%	79%	
AB Rural						
#	55	453	490	510	554	n.r.
%	75%	62%	52%	23%	21%	
AB Farm						
#	n.r.	n.r.	345	191	189	n.r.
%			37%	9%	7%	
AB Rural Non-Farm						
#	55	453	145	319	365	n.r.
%	75%	62%	15%	14%	14%	

Source: Census of Canada, Various Years, SC 93-357 XPB, 92-901

CMA = Census Metropolitan Area

Table 2 Continued
Urban Rural Population, Census Years, 1901, 1931, 1951, 1981, 1996 and 2000, (thousands)

PRAIRIES						
	1901	1931	1951	1981	1996	2000
Prairie Total						
# (000s)	419	2353	2549	4232	4803	5183
%	100%	100%	100%	100%	100%	100%
Prairie CMA						
#	52	478	650	2069	3307	3011
%	12%	20%	26%	49%	69%	58%
Prairie Urban						
#	102	886	1142	3222	3570	n.r.
%	24%	38%	45%	76%	74%	
Prairie Rural						
#	317	1468	1406	1211	1231	n.r.
%	76%	62%	55%	29%	26%	
Prairie Farm						
#	n.r.	n.r.	963	467	415	n.r.
%			38%	11%	9%	
Prairie Non-Farm Rural						
#	317	1468	443	744	816	n.r.
%	76%	62%	17%	18%	17%	

Source: Census of Canada, Various Years, SC 93-357 XPB, 92-901

Note: CMA = Census Metropolitan Area. n.r. = not reported

Table 3 - Real Gross Domestic Domestic Product by Sector, 1984 and 1997, Manitoba.

	Real Gross Domestic Product					
	1984 \$s millions	1997 \$s millions	Change \$s millions	% Change 1997-1984	1984 % of Total	1997 % of Total
All Industries	19,557.3	24,455.7	4,898.4	25%	100%	100%
Goods Producing Industries	5,297.7	6,784.2	1,486.5	28%	27%	28%
Services Industries	1,429.1	17,671.5	16,242.4	1137%	7%	72%
Agriculture	717.4	803.6	86.2	12%	4%	3%
Fishing	18.7	8.9	-9.8	-52%	0%	0%
Logging and Forest	69.7	55.4	-14.3	-21%	0%	0%
Mining	566.4	519.1	-47.3	-8%	3%	2%
Manufacturing	2,138.2	2,996.9	858.7	40%	11%	12%
Food	399.2	480.3	81.1	20%	2%	2%
Beverage	88.7	41.7	-47	-53%	0%	0%
Wood Prods	188.2	337.3	149.1	79%	1%	1%
Fabricated Metals	114.8	173.7	58.9	51%	1%	1%
Machinery	103.4	441.2	337.8	327%	1%	2%
Transport Equipment	290.6	382.2	91.6	32%	1%	2%
Electrical	87.3	73.1	-14.2	-16%	0%	0%
Non-metallic Minerals	69.8	50.2	-19.6	-28%	0%	0%
Refined Petroleum	0.1	1.1	1	1000%	0%	0%
Chemical	60.1	170.3	110.2	183%	0%	1%
Other Manufacturing	736	845.8	109.8	15%	4%	3%
Construction	1,091.6	1,372.7	281.1	26%	6%	6%
Transportation and Storage	1,321.1	1,514.1	193	15%	7%	6%
Communications	630.6	1,529.7	899.1	143%	3%	6%
Other Utility	758.8	1,027.5	268.7	35%	4%	4%
Wholesale Trade	1,023.4	1534	510.6	50%	5%	6%
Retail Trade	1,270.7	1,423.6	152.9	12%	6%	6%
Finance and Insurance	773	1,071.8	298.8	39%	4%	4%
Real Estate	2,292.2	2,635.8	343.6	15%	12%	11%
Business Services	556.3	947.1	390.8	70%	3%	4%
Government	1,730.4	1,662.2	-68.2	-4%	9%	7%
Educational Service	1,528.5	1,549.1	20.6	1%	8%	6%
Health Service	1727	2,266.6	539.6	31%	9%	9%
Accommodation Food and beverage	679.9	670.5	-9.4	-1%	3%	3%
Other Services	876.6	867	-9.6	-1%	4%	4%

Source: Statistics Canada, Provincial Gross Domestic Product by Industry, Cat. 15-203-XPB, Annual

Table 3. (Continued) Real Gross Domestic Product by Sector, 1984 and 1997, Saskatchewan

	Real Gross Domestic Product				1984 % of Total	1997 % of Total
	1984 \$s millions	1997 \$s millions	Change \$s millions	% Change 1997-1984		
All Industries	17,506	23,199	5,693.2	33%	100%	100%
Goods Producing Industries	62,93.1	9,436.1	3143	50%	36%	41%
Services Industries	1,1355.0	13,763.0	2,408.1	21%	65%	59%
Agriculture	1,124.3	2,023.8	899.5	80%	6%	9%
Fishing	4.4	3.4	-1	-23%	0%	0%
Logging and Forest	67.7	64.8	-2.9	-4%	0%	0%
Mining	2,183.8	3,673.1	1,489.3	68%	12%	16%
Manufacturing	877.3	1,390.4	513.1	58%	5%	6%
Food	326.7	269.2	-57.5	-18%	2%	1%
Beverage	92.8	28.7	-64.1	-69%	1%	0%
Wood Prods	51.7	86.5	34.8	67%	0%	0%
Fabricated Metals	59.7	116.2	56.5	95%	0%	1%
Machinery	97.4	233	135.6	139%	1%	1%
Transport Equipment	26.9	51.3	24.4	91%	0%	0%
Electrical	68.1	114.5	46.4	68%	0%	0%
Non-metallic Minerals	64.9	26.3	-38.6	-59%	0%	0%
Refined Petroleum	c	c	c	c	0%	0%
Chemical	38.9	111.6	72.7	187%	0%	0%
Other Manufacturing	50.2	353.1	302.9	603%	0%	2%
Construction	1,545.1	1,512.2	-32.9	-2%	9%	7%
Transportation and Storage	1,019.2	1,420.4	401.2	39%	6%	6%
Communications	443.5	879.9	436.4	98%	3%	4%
Other Utility	634.3	768.5	134.2	21%	4%	3%
Wholesale Trade	746.3	1,192.7	446.4	60%	4%	5%
Retail Trade	1,233.2	1,374.6	141.4	11%	7%	6%
Finance and Insurance	721	954.9	233.9	32%	4%	4%
Real Estate	1,979.7	2,032.7	53	3%	11%	9%
Business Services	438	666.8	228.8	52%	3%	3%
Government	1,332.2	1,185.7	-146.5	-11%	8%	5%
Educational Service	1,159.7	1,165.5	5.8	1%	7%	5%
Health Service	1,184.9	1556.2	371.3	31%	7%	7%
Accommodation Food and beverage	625	661.7	36.7	6%	4%	3%
Other Services	579.9	671.9	92	16%	3%	3%

Source: Statistics Canada, Provincial Gross Domestic Product by Industry, Cat. 15-203-XPB, Annual

Table 3. (Continued)
Real Gross Domestic Domestic Product by Sector, 1984 and 1997, Alberta

	Real Gross Domestic Product				1984 % of Total	1997 % of Total
	1984 \$s millions	1997 \$s millions	Change \$s millions	% Change 1997-1984		
All Industries	57,498.1	84,907.8	27,409.7	48%	100%	100%
Goods Producing Industries	23,249.4	38,003.7	14,754.3	63%	40%	45%
Services Industries	34,126.8	46,904.0	12,777.2	37%	59%	55%
Agriculture	1,296.2	2,675.4	1,379.2	106%	2%	3%
Fishing	3.8	3.0	-0.8	-21%	0%	0%
Logging and Forest	127.4	233.1	105.7	83%	0%	0%
Mining	1,0710.0	16,465.1	5,755.1	54%	19%	19%
Manufacturing	4,213.6	8,559.1	4,345.5	103%	7%	10%
Food	801.3	1,161.0	359.7	45%	1%	1%
Beverage	198.3	209.7	11.4	6%	0%	0%
Wood Prods	322.3	860.6	538.3	167%	1%	1%
Fabricated Metals	334.7	710.5	375.8	112%	1%	1%
Machinery	366.8	801.2	434.4	118%	1%	1%
Transport Equipment	107.8	211.7	103.9	96%	0%	0%
Electrical	112.2	689.5	577.3	515%	0%	1%
Non-metallic Minerals	234.1	400.3	166.2	71%	0%	0%
Refined Petroleum	92.1	236.8	144.7	157%	0%	0%
Chemical	649.5	1,495.5	846	130%	1%	2%
Other Manufacturing	994.5	1,782.3	787.8	79%	2%	2%
Construction	4,439.0	7,091.2	2,652.2	60%	8%	8%
Transportation and Storage	2,677.9	4,614.2	1,936.3	72%	5%	5%
Communications	1,388.8	2,291.6	902.8	65%	2%	3%
Other Utility	1,795.7	2,976.7	1,181.0	66%	3%	4%
Wholesale Trade	2,151.9	4,703.0	2,551.1	119%	4%	6%
Retail Trade	3,474.4	4,498.2	1,023.8	29%	6%	5%
Finance and Insurance	2,245.2	2,908.0	662.8	30%	4%	3%
Real Estate	5,542.2	7,017.9	1,475.7	27%	10%	8%
Business Services	2,505.7	3,985.9	1,480.2	59%	4%	5%
Government	3,754.2	3,619.7	-134.5	-4%	7%	4%
Educational Service	3,652.4	3,768.7	116.3	3%	6%	4%
Health Service	3,108.5	4,048.3	939.8	30%	5%	5%
Accommodation Food and Beverage	1,807.1	2,409.1	602	33%	3%	3%
Other Services	2,255.3	3,039.4	784.1	35%	4%	4%

Source: Statistics Canada, Provincial Gross Domestic Product by Industry, Cat. 15-203-XPB, Annual

Table 3. (continued)
Real Gross Domestic Product by Sector, 1984 and 1997, Prairie Provinces.

	Real Gross Domestic Product					
	1984 \$s millions	1997 \$s millions	Change \$s millions	% Change 1997-1984	1984 % of Total	1997 % of Total
All Industries	94,561.5	132,562.8	38,001.3	40%	100%	100%
Goods Producing Industries	34,840.2	54,224.0	19,383.8	56%	37%	41%
Services Industries	46,911.0	78,338.7	31,427.7	67%	50%	59%
Agriculture	3,137.9	5,502.8	2,364.9	75%	3%	4%
Fishing	26.9	15.3	-11.6	-43%	0%	0%
Logging and Forest	264.8	353.3	88.5	33%	0%	0%
Mining	13,460.2	20,657.3	7,197.1	53%	14%	16%
Manufacturing	7,229.1	12,946.4	5,717.3	79%	8%	10%
Food	1,527.2	1,910.5	383.3	25%	2%	1%
Beverage	379.8	280.1	-99.7	-26%	0%	0%
Wood Prods	562.2	1,284.4	722.2	128%	1%	1%
Fabricated Metals	509.2	1,000.4	491.2	96%	1%	1%
Machinery	567.6	1,475.4	907.8	160%	1%	1%
Transport Equipment	425.3	645.2	219.9	52%	0%	0%
Electrical	267.6	877.1	609.5	228%	0%	1%
Non-metallic Minerals	368.8	476.8	108	29%	0%	0%
Refined Petroleum	92.2	237.9	145.7	158%	0%	0%
Chemical	748.5	1,777.4	1,028.9	137%	1%	1%
Other Manufacturing	1,780.7	2,981.2	1,200.5	67%	2%	2%
Construction	7,075.7	9,976.1	2,900.4	41%	7%	8%
Transportation and Storage	5,018.2	7,548.7	2,530.5	50%	5%	6%
Communications	2,462.9	4,701.2	2,238.3	91%	3%	4%
Other Utility	3,188.8	4,772.7	1,583.9	50%	3%	4%
Wholesale Trade	3,921.6	7,429.7	3,508.1	89%	4%	6%
Retail Trade	5,978.3	7,296.4	1,318.1	22%	6%	6%
Finance and Insurance	3,739.2	4,934.7	1,195.5	32%	4%	4%
Real Estate	9,814.1	11,686.4	1,872.3	19%	10%	9%
Business Services	3,500.0	5,599.8	2,099.8	60%	4%	4%
Government	6,816.8	6,467.6	-349.2	-5%	7%	5%
Educational Service	6,340.6	6,483.3	142.7	2%	7%	5%
Health Service	6,020.4	7,871.1	1,850.7	31%	6%	6%
Accommodation Food and Beverage	3,112.0	3,741.3	629.3	20%	3%	3%
Other Services	3,711.8	4,578.3	866.5	23%	4%	3%

Source: Statistics Canada, Provincial Gross Domestic Product by Industry, Cat. 15-203-XPB, Annual

**Table 4 Export Dependence in Prairie Provinces and Canada
Exports as a Share of Real GDP, 1981 and 1999**

	1981	1999
Manitoba	39%	59%
Saskatchewan	41%	62%
Alberta	43%	57%
Prairies	42%	58%
Canada	41%	60%

Source: Source: Statistics Canada, Provincial Economic Accounts, Annual Estimates, 1981 – 1999, 13-213-XDB

Table 5 Interprovincial and International Exports, Prairie Provinces

	Interprovincial Exports			International Exports			Total Exports		
	1984	1996	%	1984	1996	%	1984	1996	%
	\$ Ms	\$ Ms	Change 96-84	\$ Ms	\$ Ms	Change 96-84	\$ Ms	\$ Ms	Change 96-84
MANITOBA									
Total Exports	4,847	7,311	151%	3,204.9	7,732.6	241%	8,051.6	15,043.5	187%
% of Total	100%	80%		100%	89%		100%	84%	
Goods Exports	2,397	3,779	158%	2,406	6,041.8	251%	4,802.6	9,821	204%
% of Total	49%	41%		75%	69%		60%	55%	
Primary Goods Exports	749	848	113%	936.3	1,290.1	138%	1,685.7	2,137.6	127%
% of Total	15%	9%		29%	15%		21%	12%	
Grains Exports	207	127	61%	618.4	401.2	65%	825.2	528.1	64%
% of Total	4%	1%		19%	5%		10%	3%	
Other Agriculture	461	900	195%	342.3	915.1	267%	803.1	1,815.4	226%
% of Total	10%	10%		11%	11%		10%	10%	
Manufacturing Goods Exports	2,071	2,911	141%	1,373.5	4,543.4	331%	3,444.5	7,454.4	216%
% of Total	43%	32%		43%	52%		43%	42%	
Agricultural Manufacturing	376	485	129%	127.4	142.4	112%	503	627	125%
% of Total	8%	5%		4%	2%		6%	4%	
Non Agricultural Goods Exports	1,353	2,267	168%	13,17.9	4,583.1	348%	2,671.3	6,850.5	256%
% of Total	28%	25%		41%	53%		33%	38%	
Service Exports	2,007	3,532	176%	798.9	1,690.8	212%	2,806.0	5,222.4	186%
% of Total	41%	39%		25%	19%		35%	29%	
<hr/>									
Goods Exports	2,397	3,779	158%	2,406.0	6,041.8	251%	4,802.6	9,821	204%
% of Total	100%	100%		100%	100%		100%	100%	
Primary Goods Exports	749	848	113%	936.3	1,290.1	138%	1,685.7	2,137.6	127%
% of Total	31%	22%		39%	21%		35%	22%	
Grains Exports	207	127	61%	618.4	401.2	65%	825.2	528.1	64%
% of Total	9%	3%		26%	7%		17%	5%	
Other Agriculture	461	900	195%	342.3	915.1	267%	803.1	1,815.4	226%
% of Total	19%	24%		14%	15%		17%	18%	
Manufacturing Goods Exports	2,071	2,911	141%	1,373.5	4,543.4	331%	3,444.5	7,454.4	216%
% of Total	86%	77%		57%	75%		72%	76%	
Agricultural Manufacturing	376	485	129%	127.4	142.4	112%	503	627	125%
% of Total	16%	13%		5%	2%		10%	6%	
Non Agricultural Goods Exports	1,353	2,267	168%	13,17.9	4,583.1	348%	2,671.3	6,850.5	256%
% of Total	56%	60%		55%	76%		56%	70%	

Statistics Canada - Cat. No. 15-546-XPE, 2000

Table 5
Interprovincial and International Exports, Prairie Provinces, 1984 and 1996.

	Interprovincial Exports			International Exports			Total Exports		
	1984 \$ Ms	1996 \$ Ms	% Change 96-84	1984 \$ Ms	1996 \$ Ms	% Change 96-84	1984 \$ Ms	1996 \$ Ms	% Change 96-84
SASKATCHEWAN									
Total Exports	4,073	6,272	154%	6447.8	10,444	162%	10,520.3	16,715.7	159%
% of Total	100%	100%		100%	100%		131%	94%	
Goods Exports	2,892	4,427	153%	5658.1	8,706.8	154%	8,549.7	13,133.7	154%
% of Total	71%	71%		88%	83%		106%	74%	
Primary Goods Exports	1,715	2,872	167%	4362.7	5,779.8	132%	6,077.7	8,651.6	142%
% of Total	42%	46%		68%	55%		75%	49%	
Grains Exports	193	416	216%	2458.1	2,408.4	98%	2,650.6	2,824.6	107%
% of Total	5%	7%		38%	23%		33%	16%	
Other Agriculture	624	1,400	224%	414.2	1,214.7	293%	1,038.4	2,614.8	252%
% of Total	15%	22%		6%	11%		13%	15%	
Manufacturing Goods Exports	1,176	1,551	132%	1293.8	2,924.2	226%	2,469.5	4,475.3	181%
% of Total	29%	25%		20%	26%		31%	25%	
Agricultural Manufacturing	311	286	92%	18.5	116.8	631%	329.2	402.3	122%
% of Total	8%	5%		0%	1%		4%	2%	
Non Agricultural Goods Exports	1,764	2,325	132%	2767.3	4,966.9	179%	4,531.5	7292	161%
% of Total	43%	37%		43%	44%		56%	41%	
Service Exports	1,181	1,845	156%	789.7	1,736.8	220%	1,970.7	3582	182%
% of Total	29%	29%		12%	15%		24%	20%	
Goods Exports	2,892	4,427	153%	5658.1	8,706.8	154%	8,549.7	13,133.7	154%
% of Total	100%	100%		100%	100%		178%	100%	
Primary Goods Exports	1,715	2,872	167%	4362.7	5,779.8		6,077.7	8,651.6	142%
% of Total	59%	65%		77%	66%		71%	66%	
Grains Exports	193	416	216%	2458.1	2,408.4	98%	2,650.6	2,824.6	107%
% of Total	7%	9%		43%	27%		31%	22%	
Other Agriculture	624	1,400	224%	414.2	1,214.7	293%	1,038.4	2,614.8	252%
% of Total	22%	32%		7%	14%		12%	20%	
Manufacturing Goods Exports	1,176	1,551	132%	1293.8	2,924.2	226%	2,469.5	4,475.3	181%
% of Total	41%	35%		23%	34%		29%	34%	
Agricultural Manufacturing	311	286	92%	18.5	116.8	631%	329.2	402.3	122%
% of Total	11%	6%		0%	1%		4%	3%	
Non Agricultural Goods Exports	1,764	2,325	132%	2767.3	4,966.9	179%	4,531.5	7292	161%
% of Total	61%	53%		49%	56%		53%	56%	

Statistics Canada - Cat. No. 15-546-XPE, 2000

Table 5
Interprovincial and International Exports, Prairie Provinces, 1984 and 1996

ALBERTA		Interprovincial Exports			International Exports			Total Exports		
		1984 \$ Ms	1996 \$ Ms	% Change 96-84	1984 \$ Ms	1996 \$ Ms	% Change 96-84	1984 \$ Ms	1996 \$ Ms	% Change 96-84
Total Exports		22,179	23,070	104%	13,924	33,500.0	241%	36,103.0	56,570	157%
	% of Total	100%	100%		100%	100%		100%	100%	
Goods Exports		18,012	16,497	92%	11,857	28,314.0	239%	29,869.0	44,811.0	150%
	% of Total	81%	72%		85%	85%		83%	79%	
Primary Goods Exports		12,673	7,488	59%	8,176.0	16,432.0	200%	20,849.0	23,920.0	115%
	% of Total	57%	32%		59%	49%		58%	42%	
Grains Exports		101	248	245%	1,102.3	913	83%	1,203.4	1,160.8	96%
	% of Total	0%	1%		8%	3%		3%	2%	
Other Agriculture		559	1,198	214%	515	1,930.3	375%	1,073.9	3,128.7	291%
	% of Total	3%	5%		4%	6%		3%	6%	
Manufacturing Goods Exports		5,335	8,767	164%	3,681.0	11,882.0	323%	9,016.0	20,649.0	229%
	% of Total	24%	38%		26%	35%		25%	37%	
Agricultural Manufacturing		1,207	1,918	159%	177.9	976.5	549%	1,384.9	2,894.1	209%
	% of Total	5%	8%		1%	3%		4%	5%	
Non Agricultural Goods Exports		16,145	13,133	81%	10,062.0	24,494	243%	26,206.8	37,627.4	144%
	% of Total	73%	57%		72%	73%		73%	67%	
Service Exports		4,167	6,573	158%	2,067.0	5,186	251%	6234	11,759.0	189%
	% of Total	19%	28%		15%	15%		17%	21%	
<hr/>										
Goods Exports		18,012	16,497	92%	11,857	28,314	239%	29,869	44,811.0	150%
	% of Total	100%	100%		100%	100%		100%	100%	
Primary Goods Exports		12,673	7,488	59%	8176	16432	201%	20,849	23,920.0	115%
	% of Total	70%	45%		69%	58%		70%	53%	
Grains Exports		101	248	245%	1102.3	913	83%	1,203.4	1,160.8	96%
	% of Total	1%	2%		9%	3%		4%	3%	
Other Agriculture		559	1,198	214%	515	1930.3	375%	1,073.9	3,128.7	291%
	% of Total	3%	7%		4%	7%		4%	7%	
Manufacturing Goods Exports		5,335	8,767	164%	3681	11882	323%	9016	20,649.0	229%
	% of Total	30%	53%		31%	42%		30%	46%	
Agricultural Manufacturing		1,207	1,918	159%	177.9	976.5	549%	1,384.9	2,894.1	209%
	% of Total	7%	12%		2%	3%		5%	6%	
Non Agricultural Goods Exports		16,145	13,133	81%	10062	24494	243%	26,206.8	37,627.4	144%
	% of Total	90%	80%		85%	87%		88%	84%	

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Table 5
Interprovincial and International Exports, Prairie Provinces, 1984 and 1996.

PRAIRIE PROVINCES	Interprovincial Exports			International Exports			Total Exports		
	1984 \$ Ms	1996 \$ Ms	% Change 96-84	1984 \$ Ms	1996 \$ Ms	% Change 96-84	1984 \$ Ms	1996 \$ Ms	% Change 96-84
Total Exports	31,098	36,653	118%	23,577	51,676	219%	54,674.9	88,329.2	162%
% of Total	100%	100%		100%	100%		100%	100%	
Goods Exports	23,300	24,703	106%	19,921	43,063.0	216%	43,221.3	67,765.7	157%
% of Total	75%	67%		84%	83%		79%	77%	
Primary Goods Exports	15,137	11,207	74%	13,475	23,502.0	174%	28,612.4	34,709.2	121%
% of Total	49%	31%		57%	45%		52%	39%	
Grains Exports	500	791	158%	4,178.8	3,722.6	89%	4,679.2	4,513.5	96%
% of Total	2%	2%		18%	7%		9%	5%	
Other Agriculture	1,644	3,499	213%	1,271.5	4,060.1	319%	2,915.4	7,558.9	259%
% of Total	5%	10%		5%	8%		5%	9%	
Manufacturing Goods Exports	8,582	13,229	154%	6,348.3	19,350.0	305%	14,930.0	32,578.7	218%
% of Total	28%	36%		27%	37%		27%	37%	
Agricultural Manufacturing	1,893	2,688	142%	323.8	1,235.7	382%	2,217.1	3,923.4	177%
% of Total	6%	7%		1%	2%		4%	4%	
Non Agricultural Goods Exports	19,263	17,726	92%	14,147	34,044.0	241%	33,409.6	51,769.9	155%
% of Total	62%	48%		60%	66%		61%	59%	
Service Exports	7,355	11,950	162%	3,655.6	8,613.6	236%	11,010.7	20,563.4	187%
% of Total	24%	33%		16%	17%		20%	23%	
Goods Exports	23,300	24,703	106%	19,921	43,063.0	216%	43,221.3	67,765.7	157%
% of Total	100%	100%		100%	100%		100%	100%	
Primary Goods Exports	15,137	11,207	74%	13,475	23,502	174%	28,612.4	34,709.2	121%
% of Total	65%	45%		68%	55%		66%	51%	
Grains Exports	500	791	158%	4,178.8	3,722.6	89%	4,679.2	4,513.5	96%
% of Total	2%	3%		21%	9%		11%	7%	
Other Agriculture	1,644	3,499	213%	1,271.5	4,060.1	319%	2,915.4	7,558.9	259%
% of Total	7%	14%		6%	9%		7%	11%	
Manufacturing Goods Exports	8,582	13,229	154%	6,348.3	19,350.0	305%	14,930.0	32,578.7	218%
% of Total	37%	54%		32%	45%		35%	48%	
Agricultural Manufacturing	1,893	2,688	142%	323.8	1,235.7	382%	2,217.1	3,923.4	177%
% of Total	8%	11%		2%	3%		5%	6%	
Non Agricultural Goods Exports	19,263	17,726	92%	14,147	34,044.0	241%	33,409.6	51,769.9	155%
% of Total	83%	72%		71%	79%		77%	76%	

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Table 6 Manitoba, Interprovincial Trade 1984 and 1998
(\$\$ millions)

Province	Exports - Total Goods and Services Interprovincial Trade				Imports - Total Goods and Services Interprovincial Trade				Interprovincial Trade Balance Total Interprovincial Trade			
	1984	1998	Change	%	1984	1998	Change	%	1984	1998	Change	%
Nfld.	29	49	20	69%	7	18	11	157%	22	31	9	41%
P.E.I.	7	19	12	171%	2	14	12	600%	5	5	0	0%
N.S.	74	120	46	62%	33	73	40	121%	41	47	6	15%
N.B.	58	107	49	84%	32	48	16	50%	26	59	33	127%
Quebec	814	1,382	568	70%	707	1,276	569	80%	107	106	-1	-1%
Ontario	1,813	3,092	1 279	71%	2,554	4,772	2,218	87%	-741	-1,680	-939	127%
Saskatchewan	763	1,360	597	78%	525	932	407	78%	238	428	190	80%
Alberta	822	1,843	1 021	124%	1,207	2,062	855	71%	-385	-219	166	-43%
B.C.	436	1,104	668	153%	385	716	331	86%	51	388	337	661%
Yukon	5	10	5	100%	2	3	1	50%	3	7	4	133%
N.W.T.	25	34	9	36%	5	13	8	160%	20	21	1	5%
Total	4,847	9,119	4 272	88%	5,469	9,928	4,459	82%	-622	-809	-187	30%

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Saskatchewan, Interprovincial Trade 1984 and 1998
(\$\$ millions)

Province	Exports - Total Goods and Services Interprovincial Trade				Imports - Total Goods and Services Interprovincial Trade				Interprovincial Trade Balance Total Interprovincial Trade			
	1984	1998	Change	%	1984	1998	Change	%	1984	1998	Change	%
Nfld.	10	28	18	180%	6	15	9	150%	4	13	9	225%
P.E.I.	2	18	16	800%	2	8	6	300%	0	10	10	n.a.
N.S.	24	64	40	167%	37	52	15	41%	-13	12	25	-192%
N.B.	21	47	26	124%	32	34	2	6%	-11	13	24	-218%
Quebec	877	712	-165	-19%	659	1,145	486	74%	218	-433	-651	-299%
Ontario	1,512	2,082	570	38%	2,480	3,886	1,406	57%	-968	-1,804	-836	86%
Manitoba	525	932	407	78%	763	1,360	597	78%	-238	-428	-190	80%
Alberta	822	1,909	1,087	132%	2,105	3,099	994	47%	-1283	-1,190	93	-7%
B.C.	257	557	300	117%	538	972	434	81%	-281	-415	-134	48%
Yukon	4	9	5	125%	1	3	2	200%	3	6	3	100%
N.W.T.	17	22	5	29%	2	12	10	500%	15	10	-5	-33%
Total	4,072	6,382	2,310	57%	6,625	10,589	3,964	60%	-2553	-4,207	-1654	65%

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Table 6 (Continued) Alberta, Interprovincial Trade 1984 and 1998
(\$\$ millions)

Province	Exports - Total Goods and Services Interprovincial Trade				Imports - Total Goods and Services Interprovincial Trade				Interprovincial Trade Balance Total Interprovincial Trade			
	1984	1998	Change	%	1984	1998	Change	%	1984	1998	Change	%
Nfld.	76	162	86	113%	19	48	29	153%	57	114	57	100%
P.E.I.	16	35	19	119%	7	26	19	271%	9	9	0	0%
N.S.	634	253	-381	-60%	101	243	142	141%	533	10	-523	-98%
N.B.	91	174	83	91%	73	114	41	56%	18	60	42	233%
Quebec	3,441	2,660	-781	-23%	1,890	3,909	2,019	107%	1,551	-1,249	-2,800	-181%
Ontario	10,052	6,763	-3,289	-33%	6,649	12,938	6,289	95%	3,403	-6,175	-9,578	-281%
Manitoba	1,207	2,062	855	71%	822	1,843	1,021	124%	385	219	-166	-43%
Saskatchewan	2,106	3,099	993	47%	822	1,909	1,087	132%	1,284	1,190	-94	-7%
B.C.	4,051	6,483	2,432	60%	2,521	5,491	2,970	118%	1,530	992	-538	-35%
Yukon	51	80	29	57%	17	32	15	88%	34	48	14	41%
N.W.T.	462	395	-67	-15%	46	99	53	115%	416	296	-120	-29%
Total	22,177	24,170	1,993	9%	12,967	26,660	13,693	106%	9,210	-2,490	-11,700	-127%

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Prairies, Interprovincial Trade 1984 and 1998
(\$\$ millions)

Province	Exports - Total Goods and Services Interprovincial Trade				Imports - Total Goods and Services Interprovincial Trade				Interprovincial Trade Balance Total Interprovincial Trade			
	1984	1998	Change	%	1984	1998	Change	%	1984	1998	Change	%
Nfld.	115	239	124	108%	32	81	49	153%	83	158	75	90%
P.E.I.	25	72	47	188%	11	48	37	336%	14	24	10	71%
N.S.	732	437	-295	-40%	171	368	197	115%	561	69	-492	-88%
N.B.	170	328	158	93%	137	196	59	43%	33	132	99	300%
Quebec	5,132	4,754	-378	-7%	3,256	6,330	3,074	94%	1,876	-1,576	-3,452	-184%
Ontario	13,377	11,937	-1,440	-11%	11,683	21,596	9,913	85%	1,694	-9,659	-11,353	-670%
Manitoba	2,495	4,354	1,859	75%	2,110	4,135	2,025	96%	385	219	-166	-43%
Saskatchewan	3,750	6,851	3,101	83%	4,134	7,070	2,936	71%	-384	-219	165	-43%
B.C.	4,744	8,144	3,400	72%	3,444	7,179	3,735	108%	1,300	965	-335	-26%
Yukon	60	99	39	65%	20	38	18	90%	40	61	21	53%
N.W.T.	504	451	-53	-11%	53	124	71	134%	451	327	-124	-27%
Total	31,096	39,671	8,575	28%	25,061	47,177	22,116	88%	6,035	-7,506	-13,541	-224%

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Table 7 - Trade in National and Provincial Gross Domestic Product., Canada and Prairie Provinces, 1981 and 1999.

CANADA				Percent		Percent		
Millions of dollars		1981	1999	Absolute	Percent	GDP	GDP	Change
				Change	Change	1981	1999	Share
				#	%	%	%	GDP
22	Exports of goods and services	227,528	524,927	297,399	131%	41%	60%	18%
23	Exports to other countries	103,568	358,272	254,704	246%	19%	41%	22%
24	Goods	87,449	312,725	225,276	258%	16%	36%	20%
25	Services	16,956	45,547	28,591	169%	3%	5%	2%
27	Exports to other provinces	128,943	166,655	37,712	29%	23%	19%	-4%
28	Goods	85,205	90,767	5,562	7%	15%	10%	-5%
29	Services	42,334	75,888	33,554	79%	8%	9%	1%
32	Deduct: Imports of goods and services	227,088	502,514	275,426	121%	41%	57%	16%
33	Imports from other countries	103,147	335,859	232,712	226%	19%	38%	19%
34	Goods	82,306	293,306	211,000	256%	15%	33%	18%
35	Services	21,568	42,553	20,985	97%	4%	5%	1%
37	Imports from other provinces	128,943	166,655	37,712	29%	23%	19%	-4%
38	Goods	85,205	90,767	5,562	7%	15%	10%	-5%
39	Services	42,334	75,888	33,554	79%	8%	9%	1%
44	Gross Domestic Product at 1992 prices	551,305	880,254	328,949	60%	100%	100%	

Source: Statistics Canada, Provincial Economic Accounts, Annual Estimates, 1981-1999, 13-213-XPB, Electronic.

MANITOBA				Percent		Percent		
Millions of dollars		1981	1999	Absolute	Percent	GDP	GDP	Change
				Change	Change	1981	1999	Share
				#	%	%	%	GDP
22	Exports of goods and services	7,824	17,001	9,177	117%	39%	59%	20%
23	Exports to other countries	2,410	8,242	5,832	242%	12%	29%	17%
24	Goods	2,123	7,275	5,152	243%	11%	25%	15%
25	Services	272	967	695	256%	1%	3%	2%
27	Exports to other provinces	5,615	8,759	3,144	56%	28%	30%	3%
28	Goods	3,220	4,450	1,230	38%	16%	15%	0%
29	Services	2,345	4,309	1,964	84%	12%	15%	3%
32	Deduct: Imports of goods and services	8,977	17,997	9,020	100%	44%	63%	18%
33	Imports from other countries	2,846	9,028	6,182	217%	14%	31%	17%
34	Goods	2,248	7,800	5,552	247%	11%	27%	16%
35	Services	623	1,228	605	97%	3%	4%	1%
37	Imports from other provinces	6,253	8,969	2,716	43%	31%	31%	0%
38	Goods	4,198	4,863	665	16%	21%	17%	-4%
39	Services	1,990	4,106	2,116	106%	10%	14%	4%
44	Gross Domestic Product at 1992 prices	20,201	28,729	8,528	42%	100%	100%	

Source: Statistics Canada, Provincial Economic Accounts, Annual Estimates, 1981-1999, 13-213-XPB, Electronic.

Table 7 (Continued) Trade in National and Provincial Gross Domestic Product, Canada and Prairie Provinces, 1981 and 1999.

SASKATCHEWAN							
Millions of dollars	1981	1999	Absolute	Percent	Percent	Percent	Change Share GDP %
			Change	Change	GDP	GDP	
			#	%	1981	1999	
			%	%	%	%	
22 Exports of goods and services	7,054	16,574	9,520	135%	41%	62%	22%
23 Exports to other countries	3,525	9,855	6,330	180%	20%	37%	17%
24 Goods	3,340	9,210	5,870	176%	19%	35%	15%
25 Services	194	645	451	232%	1%	2%	1%
27 Exports to other provinces	3,566	6,719	3,153	88%	21%	25%	5%
28 Goods	2,232	4,671	2,439	109%	13%	18%	5%
29 Services	1,302	2,048	746	57%	8%	8%	0%
32 Deduct: Imports of goods and services	10,944	17,660	6,716	61%	63%	67%	3%
33 Imports from other countries	2,941	7,453	4,512	153%	17%	28%	11%
34 Goods	2,444	6,577	4,133	169%	14%	25%	11%
35 Services	507	876	369	73%	3%	3%	0%
37 Imports from other provinces	8,080	10,207	2,127	26%	47%	38%	-8%
38 Goods	5,161	4,956	-205	-4%	30%	19%	-11%
39 Services	2,808	5,251	2,443	87%	16%	20%	4%
44 Gross Domestic Product at 1992 prices	17,352	26,547	9,195	53%	100%	100%	

Source: Statistics Canada, Provincial Economic Accounts, Annual Estimates, 1981-1999, 13-213-XPB, Electronic.

ALBERTA							
Millions of dollars	1981	1999	Absolute	Percent	Percent	Percent	Change Share GDP %
			Change	Change	GDP	GDP	
			#	%	1981	1999	
			%	%	%	%	
22 Exports of goods and services	25,268	58,045	32,777	130%	43%	57%	13%
23 Exports to other countries	8,333	34,571	26,238	315%	14%	34%	20%
24 Goods	7,334	30,973	23,639	322%	13%	30%	18%
26 Adjusting entry	-161	0	161	-100%	0%	0%	0%
27 Exports to other provinces	18,607	23,474	4,867	26%	32%	23%	-9%
28 Goods	13,009	14,975	1,966	15%	22%	15%	-8%
29 Services	5,347	8,499	3,152	59%	9%	8%	-1%
32 Deduct: Imports of goods and services	33,312	54,523	21,211	64%	57%	53%	-4%
33 Imports from other countries	11,375	29,105	17,730	156%	20%	29%	9%
34 Goods	9,235	25,385	16,150	175%	16%	25%	9%
35 Services	2,138	3,720	1,582	74%	4%	4%	0%
37 Imports from other provinces	22,325	25,418	3,093	14%	38%	25%	-13%
38 Goods	13,888	14,046	158	1%	24%	14%	-10%
39 Services	8,336	11,372	3,036	36%	14%	11%	-3%
44 Gross Domestic Product at 1992 prices	58,129	101,960	43,831	75%	100%	100%	

Source: Statistics Canada, Provincial Economic Accounts, Annual Estimates, 1981-1999, 13-213-XPB, Electronic.

**Table 7 (Continued) –
Trade in National and Provincial Gross Domestic Product., Canada and Prairie Provinces, 1981 and 1999.**

PRAIRIE PROVINCES				Percent		Percent			
Millions of dollars		1981	1999	Absolute Change	Percent Change	GDP 1981	GDP 1999	Change Share GDP	
				#	%	%	%	%	
22	Exports of goods and services	40,146	91,620	51,474	128%	42%	58%	16%	
23	Exports to other countries	14,268	52,668	38,400	269%	15%	33%	19%	
24	Goods	12,797	47,458	34,661	271%	13%	30%	17%	
25	Services	305	1,612	1,307	429%	0%	1%	1%	
27	Exports to other provinces	27,788	38,952	11,164	40%	29%	25%	-4%	
28	Goods	18,461	24,096	5,635	31%	19%	15%	-4%	
29	Services	8,994	14,856	5,862	65%	9%	9%	0%	
32	Deduct: Imports of goods and services	53,233	90,180	36,947	69%	56%	57%	2%	
33	Imports from other countries	17,162	45,586	28,424	166%	18%	29%	11%	
34	Goods	13,927	39,762	25,835	186%	15%	25%	11%	
35	Services	3,268	5,824	2,556	78%	3%	4%	0%	
37	Imports from other provinces	36,658	44,594	7,936	22%	38%	28%	-10%	
38	Goods	23,247	23,865	,618	3%	24%	15%	-9%	
39	Services	13,134	20,729	7,595	58%	14%	13%	-1%	
44	Gross Domestic Product at 1992 prices	95,682	157,236	61,554	64%	100%	100%	0%	

Source: Statistics Canada, Provincial Economic Accounts, Annual Estimates, 1981-1999, 13-213-XPB, Electronic.

Table 8
Type of Farm, Prairie Provinces, 1976 and 1996

	1976	1996	Actual Change #	Percent Change
Manitoba				
Total	26,479	22,456	-4,023	-15%
Wheat	7,407	3,407	-4,000	-54%
Other Grain and Oilseeds	9,127	6,110	-3,017	-33%
Other Field Crops	275	1,248	973	354%
Beef	5,186	7,018	1,832	35%
Cattle				
Hogs	821	946	125	15%
Saskatchewan				
Total	65,101	54,979	-10,122	-16%
Wheat	43,817	20,192	-23,625	-54%
Other Grain and Oilseeds	10,213	19,928	9,715	95%
Other Field Crops	44	1,390	1,346	3059%
Beef	7,713	8,952	1,239	16%
Cattle				
Hogs	501	486	-15	-3%
Alberta				
Total	50,431	54,626	4,195	8%
Wheat	8,500	5,243	-3,257	-38%
Other Grain and Oilseeds	14,719	10,343	-4,376	-30%
Other Field Crops	524	3,825	3,301	630%
Beef	19,505	24,718	5,213	27%
Cattle				
Hogs	1,176	1,149	-27	-2%
Prairies				
Total	142,011	132,061	-9,950	-7%
Wheat	59,724	28,842	-30,882	-52%
Other Grain and Oilseeds	34,059	36,381	2,322	7%
Other Field Crops	843	6,463	5,620	667%
Beef	32,404	40,688	8,284	26%
Cattle				
Hogs	2,498	2,581	83	3%

Source: Statistics Canada Cat. 93-358. pp. 58-59.

Table 9
Population, Farm Population, Farm Operators, Number of Farms, Area in Farms and Farm Cash Receipts, 1951 - 1996.

MANITOBA	1951	1961	1966	1971	1976	1981	1986	1991	1996
Total Population	776,541	921,686	963,066	988,247	1,021,506	1,026,241	1,063,016	1,091,945	1,113,900
Farm Population	219,233	172,946	161,662	131,202	114,115	98,375	86,505	79,280	79,840
Operators Total #	52,134	43,306	39,747	34,981	32,104	29,442	27,336	34,780	33,255
Total # Farms	52,383	43,306	39,747	34,981	32,104	29,442	26,570	25,102	24,383
Area in Farms (ha)	7,175,235	7,353,117	7,722,946	7,692,369	7,699,651	7,736,000	7,740,226	7,724,990	7,732,138
Farm Cash Receipts (\$M)						1,648	2,074.6	1,999.5	2,815.7
Farm Product Price Index						1.00	0.932	1.009	1.2
Real Farm Cash Receipts						\$1,648	\$2,226	\$1,982	\$2,346
Tot Pop/Farm	15	21	24	28	32	35	40	44	46
Farm Pop/Farm	4	4	4	4	4	3	3	3	3
Area/Farm (ha)	137	170	194	220	240	263	291	308	317
Farm Pop as % Tot Pop	28%	19%	17%	13%	11%	10%	8%	7%	7%
Real Farm Cash Receipts/Farm						\$55,974	\$83,777	\$78,945	\$96,232

Source: Canada Grains Council, Statistical Handbook, Table 63, Various Years.

SASKATCHEWAN	1951	1961	1966	1971	1976	1981	1986	1991	1996
Total Population	831,728	925,181	955,344	926,242	921,323	968,313	1,009,613	988,930	990,235
Farm Population	399,473	305,740	281,089	233,792	202,720	187,163	168,505	159,290	145,560
Operators Total #	111,586	9,3924	85,686	76,970	70,958	67,318	63,431	78,025	72,925
Total # Farms	112,018	9,3924	85,686	76,970	70,958	67,318	62,838	60,457	56,995
Area in Farms (ha)	24,954,207	26,068,032	26,470,227	26,327,580	26,511,533	26,533,000	26,599,354	26,865,488	26,569,062
Farm Cash Receipts(\$M)						3,993.9	4,144.1	4,122.3	5,757
Farm Product Price Index						1	0.932	1.009	1.2
Real Farm Cash Receipts						\$3,994	\$4,446	\$4,086	\$4,798
Tot Pop/Farm	7	10	11	12	13	14	16	16	17
Farm Pop/Farm	4	3	3	3	3	3	3	3	3
Area/Farm (ha)	223	278	309	342	374	394	423	444	466
Farm Pop as % Tot Pop	48%	33%	29%	25%	22%	19%	17%	16%	15%
Real Farm Cash Receipts/Farm						\$59,329	\$70,761	\$67,577	\$84,174

Source: Canada Grains Council, Statistical Handbook, Table 63, Various Years.

Table 9 (Continued)**Population, Farm Population, Farm Operators, Number of Farms, Area in Farms and Farm Cash Receipts, 1951-1996.**

ALBERTA	1951	1961	1966	1971	1976	1981	1986	1991	1996
Total Population	939,501	133,1944	1463203	1627874	1838037	2237724	2365825	2545555	2696825
Farm Population	345,222	28,7814	281583	237924	219300	195284	183835	176935	188510
Operators Total #	84,044	73,212	69,411	62,702	61,130	58,056	57,777	81,410	82,455
Total # Farms	84,315	73,212	69,411	62,702	61,130	58,056	56,746	56,237	59,007
Area in Farms (ha)	17,992,173	1,911,2756	19822664	20034481	20205455	20207000	20655340	20811002	21029228
Farm Cash Receipts(\$M)						3,849.9	3,752.8	4,224.1	6,523.1
Farm Product Price Index						1	0.932	1.009	1.2
Real Farm Cash Receipts						\$3,850	\$4,027	\$4,186	\$5,436
Tot Pop/Farm	11	18	21	26	30	39	42	45	46
Farm Pop/Farm	4	4	4	4	4	3	3	3	3
Area/Farm (ha)	213	261	286	320	331	348	364	370	356
Farm Pop as % Tot Pop	37%	22%	19%	15%	12%	9%	8%	7%	7%
Real Farm Cash Receipts/Farm						\$66,314	\$70,958	\$74,442	\$92,123

Source: Canada Grains Council, Statistical Handbook, Table 63, Various Years.

PRAIRIES	1951	1961	1966	1971	1976	1981	1986	1991	1996
Total Population	2,547,770	3,178,811	3,381,613	3,542,363	3,780,866	4,232,278	4,438,454	4,626,430	4,800,960
Farm Population	963,928	766,500	724,334	602,918	536,135	480,822	438,845	415,505	413,910
Operators Total #	247,764	210,442	194,844	174,653	164,192	154,816	148,544	194,215	188,635
Total # Farms	248,716	210,442	194,844	174,653	164,192	154,816	146,154	141,796	140,385
Area in Farms (ha)	50,121,61	52,533,905	54,015,837	54,054,430	54,416,639	54,476,000	54,994,920	55,401,480	55,330,428
5									
Farm Cash Receipts(\$M)						9,491.8	99,71.5	103,45.9	1,509,5.8
Farm Product Price Index						1	0.932	1.009	1.2
Real Farm Cash Receipts						\$9,492	\$10,699	\$10,254	\$12,580
Tot Pop/Farm	10	15	17	20	23	27	30	33	34
Farm Pop/Farm	4	4	4	3	3	3	3	3	3
Area/Farm (ha)	202	250	277	309	331	352	376	391	394
Farm Pop as % Tot Pop	38%	24%	21%	17%	14%	11%	10%	9%	9%
Real Farm Cash Receipts/Farm						\$61,310	\$73,204	\$72,312	\$89,610

Source: Canada Grains Council, Statistical Handbook, Table 63, Various Years.

Table 10
Total Farm Cash Receipts from Major Grains, and total Farm Cash Receipts, 1980, 1990 and 1999, Prairie Provinces.
Millions of Dollars

Source	MANITOBA			SASKATCHEWAN		
	1980	1990	1999 _p	1980	1990	1999 _p
Wheat	327.7	480.1	366.6	1,470.7	1,142.8	744.7
Wheat, CWB Payments	41.7	65.1	115.5	251.3	187.2	297.9
Durum	17.3	21.4	14.9	292.8	259.0	367.8
Durum, CWB Payments	1.3	1.4	5.7	25.0	20.1	185.3
Oats	4.6	8.1	64.7	7.8	15.9	74.5
Oats, CWB Payments	0.3	0.4		0.1	0.9	
Barley	84.2	82.4	35.1	142.3	188.8	206.4
Barley, CWB Payments	9.3	14.4	3.3	17.0	42.3	48.7
Deferred Grain Receipts	-58.1	-62.6	-120.2	-446.7	-256.6	-315.8
Liquidation Of Deferred	45.2			281.8		
Total	473.5	610.7	485.7	2,042.1	1,600.4	1,609.5
Total Receipts	1,491.7	1,964.5	2,946.5	3,332.0	4,026.0	5,415.9
Export Grain As % Total Received	31.74%	31.09%	16.48%	61.29%	39.75%	29.72%

Source	ALBERTA			PRAIRIES		
	1980	1990	1999 _p	1980	1990	1999 _p
Wheat	539.4	552.3	618.1	2,337.8	2,175.2	1,729.3
Wheat, CWB Payments	67.2	92.2	189.4	360.2	344.5	602.7
Durum	46.2	63.6	108.4	356.3	344.0	491.2
Durum, CWB Payments	3.2	5.8	49.1	29.5	27.3	240.1
Oats	27.0	35.6	23.3	39.4	59.6	162.5
Oats, CWB Payments	0.0	2.0		0.4	3.3	0.0
Barley	292.2	226.5	148.5	518.7	497.7	390.0
Barley, CWB Payments	18.9	45.7	28.7	45.2	102.4	80.8
Deferred Grain Receipts	-143.5	-107.4	-144.1	-648.3	-426.6	-580.1
Liquidation Of Deferred	78.6			405.6	0.0	0.0
Total	929.2	916.3	1,021.4	3,444.8	3,127.4	3,116.7
Total Receipts	3,144.5	4,291.9	6,549.1	7,968.2	10,282.4	14,911.5
Export Grain As % Total Received	29.55%	21.35%	15.60%	43.23%	30.42%	20.90%

Source: Canada Grains Council, Statistical Handbook, 1990 and 2000.

Table 11
Prairie Acres Planted in Wheat, Barley, Canola and Summerfallow, 1981 – 2000
Thousands of hectares

Crop year concluding in June, 30 of:	Wheat	Barley	Canola	Summer Fallow
1981	12,118.9	5,058.0	1,376.0	9,510.0
1982	12,302.1	4,674.0	1,719.9	9,308.0
1983	13,353.2	3,885.0	2,246.0	9,045.0
1984	12,849.2	4,127.0	2,995.0	8,417.0
1985	13,395.5	4,289.0	2,712.0	8,296.0
1986	13,843.3	4,310.0	2,558.0	8,297.0
1987	13,161.2	4,492.0	2,610.0	8,620.0
1988	12,553.0	2,893.0	3,601.0	8,842.0
1989	13,211.4	4,208.0	2,809.0	8,295.0
1990	13,654.0	4,107.5	2,476.7	8,134.2
1991	13,336.8	3,783.8	3,074.0	7,781.1
1992	13,443.7	3,371.0	2,994.7	7,318.7
1993	12,086.0	3,763.6	4,042.8	7,122.4
1994	10,440.8	3,743.3	5,696.8	6,798.7
1995	10,738.0	4,026.6	5,190.1	6,778.5
1996	11,873.3	4,552.7	3,411.6	6,191.6
1997	11,141.0	4,350.4	4,815.7	5,645.4
1998	10,369.1	3,921.4	5,354.0	5,402.0
1999	9,969.4	3,743.4	5,483.5	6,030.0
2000	10,577.0	4,245.2	4,763.1	4,664.0

Source: Canada Grains Council, Statistical Handbook, 1991, Tables 1 & 4, and 2000, Table 1 & 4. Winnipeg.

Table 12
Prairie Acreage Planted to Dry Beans, Lentils and Special Crops, 1981 – 2000
Thousands of hectares

Crop year concluding in June, 30 of:	Dry Peas	Lentils
1981	59.5	51.0
1982	78.5	70.8
1983	64.4	47.7
1984	74.5	63.5
1985	74.5	72.8
1986	131.2	130.7
1987	253.1	238.4
1988	293.4	135.1
1989	169.9	103.1
1990	123.4	133.6
1991	198.5	238.1
1992	259.0	267.1
1993	467.4	327.8
1994	683.9	386.4
1995	779.0	327.0
1996	518.0	303.5
1997	845.8	329.0
1998	1,074.5	371.6
1999	831.5	496.6
2000	1,236.2	698.9

Source: Canada Grains Council, Statistical Handbook, 1991, Table 1 & 4, and 2000, Table 1 & 4. Winnipeg.

Table 13
Production of Principal Crops, Prairie Provinces, 1981 - 2000
thousand tonnes

	All Wheat				Barley				Oats			
	MB	SK	AB	Prairies	MB	SK	AB	Prairies	MB	SK	AB	Prairies
1981	3,326	14,288	6,221	23,835	2,330	3,331	6,967	12,628	463	817	1,249	2,529
1982	3,701	16,438	5,988	26,127	2,373	3,636	6,575	12,584	524	956	1,357	2,837
1983	3,410	15,213	6,804	25,427	1,589	2,417	5,095	9,101	401	648	1,049	2,098
1984	3,742	11,485	4,883	20,110	1,938	2,460	4,638	9,036	432	432	956	1,820
1985	5,226	12,854	4,899	22,979	2,526	3,636	4,769	10,931	494	555	925	1,974
1986	4,478	18,370	7,212	30,060	1,851	3,941	7,185	12,977	463	765	1,450	2,678
1987	3,947	15,241	5,796	24,984	1,938	3,919	6,586	12,443	416	709	1,249	2,374
1988	2,401	6,858	5,285	14,544	1,089	2,090	5,813	8,992	224	478	1,650	2,352
1989	4,063	12,647	6,445	23,155	1,546	3,005	5,704	10,255	339	802	1,619	2,760
1990	5,884	17,486	6,995	30,365	1,960	3,897	6,249	12,106	339	694	1,110	2,144
1991	4,806	18,501	7,773	31,080	1,426	3,070	5,879	10,375	222	386	787	1,394
1992	5,808	16,192	6,328	28,327	1,568	3,157	4,855	9,580	555	663	1,036	2,255
1993	3,637	15,031	7,620	26,289	1,241	4,246	6,314	11,801	494	1,080	1,465	3,038
1994	3,697	12,300	5,593	21,589	1,328	3,919	5,465	10,712	663	1,388	1,188	3,239
1995	3,405	12,683	7,267	23,354	1,328	4,355	6,336	12,018	625	1,110	771	2,506
1996	4,377	16,547	7,789	28,713	2,112	5,356	7,076	14,544	1,056	1,882	1,080	4,017
1997	3,350	13,070	6,839	23,260	1,685	4,431	6,271	12,386	736	1,403	979	3,118
1998	3,220	12,601	6,752	22,573	1,631	4,311	5,661	11,603	1,030	1,758	771	3,559
1999r	3,158	13,840	8,178	25,176	1,215	4,942	5,987	12,145	854	1,535	864	3,253
2000p	4,266	13,533	7,288	25,086	1,622	5,478	5,389	12,489	1,016	1,377	657	3,051

	Flaxseed				Rye				Canola			
	MB	SK	AB	Prairies	MB	SK	AB	Prairies	MB	SK	AB	Prairies
1981	262	150	56	467	175	330	320	825	306	760	760	1,826
1982	437	234	81	752	213	391	228	832	399	794	975	2,168
1983	297	119	28	444	163	348	210	721	397	1,066	1,066	2,529
1984	439	224	31	694	196	230	137	563	544	1,429	1,361	3,334
1985	559	310	28	897	167	205	119	492	635	1,542	1,247	3,424
1986	572	406	49	1,027	61	287	204	551	578	1,497	1,588	3,663
1987	406	290	33	729	46	249	152	447	585	1,542	1,633	3,760
1988	198	152	23	373	58	89	71	218	612	1,678	1,905	4,195
1989	221	236	41	498	198	439	186	823	339	1,293	1,338	2,970
1990	381	432	76	889	158	300	91	549	460	1,452	1,281	3,193
1991	330	267	38	635	61	147	76	285	796	1,724	1,622	4,141
1992	208	109	19	337	66	109	75	250	987	1,474	1,349	3,810
1993	244	343	41	627	43	165	81	290	907	2,381	2,109	5,398
1994	373	546	41	960	33	221	89	343	1,486	3,175	2,472	7,133
1995	404	648	53	1,105	53	140	66	259	1,227	2,631	2,449	6,307
1996	358	473	20	851	66	135	64	265	1,068	2,223	1,701	4,992
1997	356	508	32	895	62	139	66	267	1,497	2,699	2,109	6,305
1998	361	681	39	1,081	107	152	78	337	1,803	3,232	2,472	7,507
1999r	272	711	39	1,022	76	168	72	317	1,708	3,976	2,971	8,655
2000p	206	470	18	693	56	98	43	196	1,488	3,379	2,155	7,022

Sources: Canada Grains Council, Statistical Handbook 1991 and 2000, Table-3, pp.11-13.

Table 14 - Livestock on Farms, Prairie Provinces, 1980 – 2000
thousands

Year	Number of Cattle on Farms				Number of Hogs on Farms			
	MB	SK	AB	Prairies	MB	SK	AB	Prairies
1980	1,210.0	2,415.0	4,155.0	7,870.0	876.0	640.0	1,251.0	2,767.0
1981	1,162.0	2,401.0	4,153.0	7,716.0	865.0	560.0	1,185.0	2,610.0
1982	1,151.0	2,387.0	4,080.0	7,618.0	873.0	500.0	1,180.0	2,553.0
1983	1,129.5	2,308.0	3,965.0	7,402.5	914.0	540.0	1,225.0	2,679.0
1984	1,131.5	2,249.0	3,975.0	7,355.5	1,044.0	625.0	1,470.0	3,139.0
1985	1,114.0	2,071.0	3,840.0	7,025.0	1,086.0	620.0	1,475.0	3,181.0
1986	1,091.0	2,036.0	3,746.0	6,873.0	1,089.0	609.0	1,508.0	3,206.0
1987	1,070.0	2,050.0	3,860.0	6,980.0	1,148.0	695.0	1,670.0	3,513.0
1988	1,075.0	2,150.0	4,030.0	7,255.0	1,250.0	845.0	1,735.0	3,830.0
1989	1,065.0	2,130.0	4,225.0	7,420.0	1,265.0	830.0	1,760.0	3,855.0
1990	1,055.0	2,173.0	4,490.0	7,718.0	1,196.0	770.0	1,689.0	3,655.0
1991	1,095.0	2,279.0	4,671.0	8,045.0	1,310.0	843.0	1,760.0	3,913.0
1992	1,167.0	2,382.0	4,811.0	8,360.0	1,372.7	929.7	1,913.1	4,215.5
1993	1,169.0	2,484.0	4,941.0	8,594.0	1,386.1	878.6	1,848.6	4,113.3
1994	1,236.0	2,607.0	5,316.0	9,159.0	1,466.4	889.8	1,778.6	4,134.8
1995	1,342.0	2,838.0	5,608.0	9,788.0	1,686.7	868.0	2,031.1	4,585.8
1996	1,424.0	2,907.0	5,736.0	10,067.0	1,813.7	829.3	1,876.9	4,519.9
1997	1,449.0	2,834.0	5,700.0	9,983.0	1,809.5	862.0	1,822.0	4,493.5
1998	1,447.0	2,747.0	5,813.0	10,007.0	1,998.6	930.8	1,880.9	4,810.3
1999	1,400.0	2,719.0	5,760.0	9,879.0	1,916.8	917.8	1,807.9	4,642.5
2000	1,395.0	2,740.0	5,709.0	9,844.0	1,935.9	1,039.8	1,778.7	4,754.4

1. Includes both beef and dairy cattle

Sources: Canada Grains Council, Statistical Handbook, 1989, Table 57, pp. 207-208; 1991, Table 54, pp. 205-206 and 2000, Table 54, pp. 191-192.

Table 15 - Summary of Livestock on Prairie Farms, 1980, 1990, and 2000
thousands

	Cattle	Hogs	Sheep & Lambs	Total
1980	7,780	2,767	282	10,829
1990	7,718	3,655	392	11,765
2000	9,844	4,754	410	15,009

Percent Increase				
	Cattle	Hogs	Sheep & Lambs	Total
1980-1990	-1%	32%	39%	9%
1990-2000	28%	30%	5%	28%
1980-2000	27%	72%	46%	39%

Percent Distribution				
	Cattle	Hogs	Sheep & Lambs	Total
1980	72%	26%	3%	100%
1990	66%	31%	3%	100%
2000	66%	32%	3%	100%

Source: Canada Grains Council, Statistical Handbook, Table 54, 1990, 2000.

Table 16
Capital on Farms, Prairie Provinces, 1976 and 1996

	Year	1976	1996	Change	percent
Manitoba					
Total	millions	\$4,535	\$12,636	\$8,101	179%
Number of Farms reporting		32,104	24,383	-7,721	-24%
Dollars per farm		\$141,253	\$518,213	\$376,960	267%
Land & buildings	millions	\$3,208	\$8,487	\$5,279	165%
Number of Farms reporting		32,104	24,383	-7,721	-24%
Dollars per farm		\$99,927	\$348,089	\$248,161	248%
Farm Machinery & Equipment	millions	\$960	\$2,996	\$2,036	212%
Number of Farms reporting		31,470	23,996	-7,474	-24%
Dollars per farm		\$30,497	\$124,848	\$94,351	309%
Livestock & Poultry	millions	\$367	\$1,152	\$785	214%
Number of Farms reporting		22,814	15,948	-6,866	-30%
Dollars per farm		\$16,086	\$72,253	\$56,167	349%
<hr/>					
	Year	1976	1996	Change	percent
Saskatchewan					
Total	millions	\$12,707	\$29,835	\$17,128	135%
Number of Farms reporting		70,958	56,995	-13,963	-20%
Dollars per farm		\$179,073	\$523,470	\$344,396	192%
Land & buildings	millions	\$9,298	\$20,626	\$11,328	122%
Number of Farms reporting		70,958	56,995	-13,963	-20%
Dollars per farm		\$131,032	\$361,887	\$230,855	176%
Farm Machinery & Equipment	millions	\$2,575	\$7,547	\$4,971	193%
Number of Farms reporting		69,119	55,617	-13,502	-20%
Dollars per farm		\$37,258	\$135,690	\$98,433	264%
Livestock & Poultry	millions	\$834	\$1,663	\$829	99%
Number of Farms reporting		46,736	29,247	-17,489	-37%
Dollars per farm		\$17,839	\$56,850	\$39,012	219%

Table 16 (Continued)
Capital on Farms, Prairie Provinces, 1976 and 1996

	Year	1976	1996	Change	percent
Alberta					
Total	millions	\$13,862	\$40,150	\$26,289	190%
Number of Farms reporting		61,130	59,007	-2,123	-3%
Dollars per farm		\$226,757	\$680,435	\$453,678	200%
Land & buildings	millions	\$10,628	\$28,734	\$18,106	170%
Number of Farms reporting		61,130	59,007	-2,123	-3%
Dollars per farm		\$173,851	\$486,955	\$313,103	180%
Farm Machinery & Equipment	millions	\$2,110	\$7,467	\$5,357	254%
Number of Farms reporting		59,467	58,206	-1,261	-2%
Dollars per farm		\$35,483	\$128,286	\$92,803	262%
Livestock & Poultry	millions	\$1,124	\$3,950	\$2,826	251%
Number of Farms reporting		47,713	43,961	-3,752	-8%
Dollars per farm		\$23,559	\$89,845	\$66,286	281%
<hr/>					
		1976	1996	Change	percent
Prairies					
Number of Farms reporting		164,192	140,385	-23,807	-14%
Dollars per farm		\$189,431	\$588,533	\$399,101	211%
Land & buildings	millions	\$23,133	\$57,847	\$34,714	150%
Number of Farms reporting		164,192	140,385	-23,807	-14%
Dollars per farm		\$140,892	\$412,059	\$271,167	192%
Farm Machinery & Equipment	millions	\$5,645	\$18,010	\$12,365	219%
Number of Farms reporting		160,056	137,819	-22,237	-14%
Dollars per farm		\$35,269	\$130,675	\$95,406	271%
Livestock & Poultry	millions	\$2,325	\$6,765	\$4,440	191%
Number of Farms reporting		117,263	89,156	-28,107	-24%
Dollars per farm		\$19,825	\$75,875	\$56,050	283%

Source: Statistics Canada Cat. 93-358. T-18. pp. 172-174.

Note: Dollars per farm in categories may not sum to dollars per farm total due to different numbers in farms in each category.

Table 17 Number and Capacity of Primary Grain Elevators, Prairie Provinces, 1980, 1990 and 2000

		1980	1990	2000	% Increase		
					1980-90	1990-2000	1980-2000
Manitoba							
	#	405	264	196	-35%	-26%	-52%
	Capacity millions of tonnes	1.2	1.1	1.3	-8%	18%	8%
Saskatchewan							
	#	1,805	834	437	-54%	-48%	-76%
	Capacity millions of tonnes	4.5	3.6	3.5	-20%	-3%	-22%
Alberta							
	#	1,097	469	209	-57%	-55%	-81%
	Capacity millions of tonnes	2.0	2.5	2.0	25%	-20%	0%
Prairies							
	#	3,307	1,567	842	-53%	-46%	-75%
	Capacity millions of tonnes	7.7	4.1	6.7	-47%	63%	-13%

Source: Canadian Grains Commission, Grain Elevators in Canada, Annual Crop Years, Annex, Historical Record as of August 1st.

**Table 18
Additional Truck Tonnage from Seven Sources, 1986 – 1998**

Item	Additional Tonnage Millions	Percent of Total	
		Based on 5K Elevator Rationalisation	Based on 10K Elevator Rationalisation
Discontinued Rail Branch Lines	1.8	6%	4%
Grain Elevator Rationalisation	7.5 – 18.4	24%	43%
East-West Market Diversion	5.9	19%	14%
Feed Grains	1.8	6%	4%
Special Crops	3.3	10%	8%
Food Processing	7.5	24%	18%
Oil, Forest and Other Industries	3.7	12%	9%

Source: Parsons, G., Grain and Sources of Increased Rural Trucking in the Prairies, Organisation for Western Economic Cooperation, Regina, 1998, p.9.

Table 19
Manufacturing Activity, Prairie Provinces, 1980, 1990 and 1997

		1980	1990	1997	1980-90	1990-97	1980-97
						% Increase	
						1990-97	1980-97
Manitoba							
# of Establishments		1,311	1,167	1,098		-11%	-16%
	% of Prairies	29%	24%	23%			
Value of Shipments (\$M)		4,357.10	6,739.50	9,969.30		55%	129%
	% of Prairies	26%	22%	20%			
Value Added (\$M)		1,886.90	3,266.50	4,659.10		73%	147%
	% of Prairies	31%	27%	22%			
Saskatchewan							
# of Establishments		771	809	787		5%	2%
	% of Prairies	17%	17%	17%			
Value of Shipments (\$M)		2,118.20	3,786.00	6,114.50		79%	189%
	% of Prairies	12%	12%	12%			
Value Added (\$M)		817.00	1,521.30	2,526.60		86%	209%
	% of Prairies	13%	13%	12%			
Alberta							
# of Establishments		2,388	2,827	2,804		18%	17%
	% of Prairies	53%	59%	60%			
Value of Shipments (\$M)		10,520.80	20,048.80	34,675.70		91%	230%
	% of Prairies	62%	66%	68%			
Value Added (\$M)		3,404.70	7,220.40	13,710.80		112%	303%
	% of Prairies	56%	60%	66%			
Prairies							
# of Establishments		4,470	4,803	4,689		7%	5%
	% of Prairies	100%	100%	100%			
Value of Shipments (\$M)		16,996.10	30,574.30	50,759.50		80%	199%
	% of Prairies	100%	100%	100%			
Value Added (\$M)		6,108.60	12,008.20	20,896.50		97%	242%
	% of Prairies	100%	100%	100%			

Source: Manufacturing Industries of Canada, Statistics Canada, 31-203-XPB

Table 20
Value and Distribution of Manufacturing Shipments, Prairie Provinces, 1961 – 1981
(\$Millions)

	1961	1981	% Change
	\$M	\$M	1961-1981
MB	716,740	4,977,010	594%
<i>% of Prairies</i>	36%	21%	
SK	331,863	2,503,630	654%
<i>% of Prairies</i>	17%	10%	
AB	935,462	16,793,372	1,695%
<i>% of Prairies</i>	47%	69%	
Prairies	19,840,666	24,274,012	1,123%
<i>% of Prairies</i>	100%	100%	

Source: Statistics Canada, 31-203-XPB, Annual

Table 21
Food and Total Manufacturing Activities, Prairie Provinces 1986-1997

Number of Establishments	MB	SK	AB	Prairies
1986				
Total Manufacturing	1,282	847	2,747	4,876
Food Industries	69	96	225	390
% of Total	5%	11%	8%	8%
1997				
Total Manufacturing	1,098	787	2,804	4,689
Food Industries	138	86	284	508
% of Total	13%	11%	10%	11%
% change 1986-1997				
Total Manufacturing	-17%	-8%	2%	-4%
Food Industries	50%	-12%	21%	23%
Value of Shipments (\$ millions)	MB	SK	AB	Prairies
1986				
Total Manufacturing	5,649	3,059	15,175	23,884
Food Industries	518	871	2,954	4,343
% of Total	9%	28%	19%	18%
1997				
Total Manufacturing	9,969	6,115	34,676	50,760
Food Industries	2,162	1,526	6,682	10,371
% of Total	22%	25%	19%	20%
% change 1986-1997				
Total Manufacturing	43%	50%	56%	53%
Food Industries	76%	43%	56%	58%

Source: Statistics Canada, Manufacturing Industries of Canada, 31-203-XPB

Table 22
Wheat Processed to Flour, Canola Crushed, Canada 1980/81 – 1999/2000 Crop Years

Crop Year	Canola Crush (000's tonnes).	Wheat to Flour (000's tonnes).
1981/1981	1,003	2,506
1981/1982	945	2,369
1982/1983	604	2,322
1983/1984	1,159	2,459
1984/1985	1,290	2,412
1985/1986	1,221	2,466
1986/1987	1,552	2,469
1987/1988	1,608	2,442
1988/1989	1,362	2,487
1989/1990	1,229	2,383
1991/1992	1,441	2,405
1992/1993	1,829	2,367
1993/1994	1,913	2,400
1994/1995	2,196	2,635
1995/1996	2,513	2,771
1996/1997	2,753	2,719
1997/1998	2,712	2,824
1998/1989	3,239	2,887
1989/1999	3,062	3,000
1999/2000	2,983	3,027

Source: Canada Grains Council, Statistical Handbook 2000. T-21, pp.53-54.

Table 23
Processing of Grains and Oilseeds, Western Canada, 1987 and 1997
(thousands of tonnes per day)

	1987	1997	% change 1987 – 1997
Wheat	3,015	2,710	-10%
Durum	360	510	42%
Wheat Fractionation	111	210	89%
Oats	332	1,142	244%
Corn	340	380	12%
Malt	1,495	2,949	97%
Oilseeds	4,550	9,775	115%
Total	10,203	17,676	73%

Percent Distribution	1987	1997	% change 1987 – 1997
Wheat	30%	15%	-14%
Durum	4%	3%	1%
Wheat Fractionation	1%	1%	0%
Oats	3%	6%	3%
Corn	3%	2%	-1%
Malt	15%	17%	2%
Oilseeds	45%	55%	11%
Total	100%	100%	

Source: Agriculture and Agri-Food Canada, Western Canadian Diversification and Agri-Food Processing since 1995., Bi-weekly Bulletin, Vol.11 No.20, 1998.

Table 24

Animal and Meat Exports from the Prairies to the United States, 1981 and 1998

Millions of Dollars

	MB 81	MB 98	SK 81	SK 98	AB 81	AB 98	Prairies 81	Prairies 98
Animals	35	414	17	191	40	796	92	1,402
Meat & Meat Products	12	96	13	105	27	911	52	1,112
Total	47	510	30	296	67	1707	144	2,514

% Distribution								
	MB 81	MB 98	SK 81	SK 98	AB 81	AB 98	Prairies 81	Prairies 98
Animals	74%	81%	57%	65%	60%	47%	64%	56%
Meat & Meat Products	26%	19%	43%	35%	40%	53%	36%	44%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Statistics Canada, Exports - Merchandise Trade, 65-202

Table 25

Labour Force Employment by Major Industrial Groups, 1981 and 1999

Thousands

	MB			SK			AB			Prairies		
	1981	1999	% Change	1981	1999	% Change	1981	1999	% Change	1981	1999	% Change
Total Employment	476	543	12%	434	480	10%	1,156	1,553	26%	2,066	2,576	20%
Goods Producing	135	144	6%	156	137	-14%	385	422	9%	676	703	4%
Agriculture	41	37	-10%	86	68	-28%	82	83	1%	209	187	-12%
Other Natural Resources	14	7	-104%	14	14	-3%	76	78	2%	104	98	-6%
Manufacturing	57	65	12%	27	28	5%	104	134	22%	188	227	17%
Other Goods Producing Inds.	24	36	34%	29	27	-6%	123	127	4%	175	190	8%
Service Industries	341	398	14%	278	344	19%	771	1,131	32%	1,390	1,873	26%

Source: Statistics Canada, Historical Labour Force Statistics, 1999, Cat. 71-201XPB

Table 26

Wheat, Barley, Durum and Canola Exports, 1980-86 and 1996-2000.

	Total Exports in thousands of tonnes			% of Total Exports in tonnes		
	US	Asia	EEC	US	Asia	EEC
1980-86	825	44,343	16,295	1%	38%	14%
1996-2000	12,607	58,179	7,165	11%	51%	6%

Source: Canada Grains Council, Statistical Handbook, 1990 and 2000.

Table 27**Estimates of Government Total Support to Agriculture, Australia, Canada, European Union (E.U.), United States of America (USA), 1986-88 and 1999**

Country	Currency	1986-88	1999	Change	percent
Australia	A\$ m	2,194	2,686	492	22%
Canada	CAD\$ m	9,412	7,361	-2,051	-22%
E.U.	Euro m	100,301	118,137	17,836	18%
USA	US\$ m	68,254	96,530	28,276	41%

Source: OECD. Agricultural Policies in OECD Countries. Monitoring and Evaluation 2000 pp. 193, 197, 205, 249.

EU Data includes expansion of EU from 12 to 15 members in 1995.

Prorata increases therefore less than shown.

Exchange Rate Data

	1986 (a)	1987 (b)	1988 (c)	1999 (d)
Australia	0.9363	0.9606	0.9621	
Period Ave.		0.9530		0.9589
EU				
GB	2.1251	2.1354	2.0776	2.4038
FF	0.1976	0.2184	0.1975	0.2416
DM	0.6300	0.7286	0.6654	0.8102
Simple Sum	2.9527	3.0824	2.9405	3.4556
Adj. Factor		0.4586		0.4586
Period Ave.		1.3721		1.5847
USA (1)	1.3894	1.3260	1.2309	1.4858
Period Ave.		1.3154		1.4858

Sources:

a. Rev. Can. B. Memorandum. Currency. S.C. 112. July 2, 1986. Data for June 28-29-30.

b. Rev. Can. B. Memorandum. Currency. S.C. 103. June 30, 1987. Data for June 30.

c. Rev. Can. B. Memorandum. Currency. S.C. 114. July 4, 1988. Data for June 30.

d. Bank of Canada. Financial Market department. Year Average of Exchange Rates 1999.

Average of 251 days. Vancouver Public Library. Business Librarian. February 26, 2001.

1. Bank of Canada Review. Spring 1999. Table II. P. S-102. Av. Noon.

Average Exchange Rates to CAD\$

Country	Currency	1986-88 \$ Can	1999 \$ Can
Australia	A\$ m	0.9530	0.9589
Canada	CAD\$ m	1.0000	1.0000
E.U.	Euro m	1.3721	1.5847
USA	US\$ m	1.3154	1.4858

Source: See calculations above.

Estimated Total Government Support to Agriculture in Canadian dollar equivalent

Country	Currency	1986-88	1999	Change	percent
Australia	CAD\$ m	2,091	2,576	485	23%
Canada	CAD\$ m	9,412	7,361	-2,051	-22%
E.U.	CAD\$ m	137,620	187,216	49,596	36%
USA	CAD\$ m	89,784	143,424	53,641	60%

Table 28
Estimates of Total Government Producer Support for Wheat,
Australia, Canada, European Union (EU) and the United States of America (USA), 1986-88 and 1999

Country	Currency	1986-88	1999	Change	percent
Australia	A\$ m	234	406	172	74%
Canada	CAD\$ m	2,047	395	-1,652	-81%
E.U.	Euro m	8,635	12,556	3,921	45%
USA	US\$ m	4,800	4,861	61	1%

Source: OECD. Agricultural Policies in OECD Countries. Monitoring and Evaluation 2000, pp.194, 198, 206, 250.
 EU Data includes expansion of EU from 12 to 15 members in 1995.

Prorata increases therefore less than shown.

Average Exchange Rates to CAD\$

Country	Currency	1986-88	1999
Australia	A\$ m	0.9530	0.9589
Canada	CAD\$ m	1.0000	1.0000
E.U.	Euro m	1.3721	1.5847
USA	US\$ m	1.3154	1.4858

Source: From Table 27

Estimated Total Government Support to Wheat in Canadian dollar equivalent

Country	Currency	1986-88	1999	Change	percent
Australia	CAD\$ m	223	389	166	75%
Canada	CAD\$ m	2,047	395	-1,652	-81%
E.U.	CAD\$ m	11,848	19,898	8,050	68%
USA	CAD\$ m	6,314	7,222	908	14%

Table 29
Product Prices for Wheat and Canola
1980/1 – 1998/9 Crop years
\$ per tonne.

	Wheat			Canola:	
	CWB	CWB Paid	Pd. Change.	Cash	Change
	Quote	to Prod.	Yr. Over Yr.	Vancouver	Yr. Over Yr.
	(1)	(2)		(3)	
1980/1981	\$242.62	\$222.12		\$329.35	
1981/1982	\$214.31	\$199.62	-\$22.50	\$325.19	-\$4.16
1982 /1983	\$204.64	\$192.34	-\$7.28	\$306.19	-\$19.00
1983/1984	\$215.29	\$193.98	\$1.64	\$455.44	\$149.25
1984/1985	\$235.31	\$186.37	-\$7.61	\$386.04	-\$69.40
1985/1986	\$249.12	\$160.00	-\$26.37	\$301.40	-\$84.64
1986/1987	\$180.72	\$130.00	-\$30.00	\$239.70	-\$61.70
1987/1988	\$191.12	\$134.02	\$4.02	\$303.35	\$63.65
1988/1989	\$247.58	\$197.14	\$63.12	\$337.40	\$34.05
1989/1990	\$212.99	\$172.11	-\$25.03	\$303.72	-\$33.68
1990/1991	\$153.43	\$135.00	-\$37.11	\$287.72	-\$16.00
1991/1992	\$199.16	\$134.14	-\$0.86	\$274.85	-\$12.87
1992/1993	\$219.32	\$156.82	\$22.68	\$321.61	\$46.76
1993/1994	\$283.06	\$164.01	\$7.19	\$391.38	\$69.77
1994/1995	\$261.87	\$195.59	\$31.58	\$412.18	\$20.80
1995/1996	\$330.33	\$254.16	\$58.57	\$433.00	\$20.82
1996/1997	\$258.51	\$208.20	-\$45.96	\$441.10	\$8.10
1997/1998	\$242.39	\$190.76	-\$17.44	\$419.92	-\$21.18
1998/1999	\$235.24	\$184.08	-\$6.68	\$374.50	-\$45.42
1999/2000	\$217.50				

Source: Canada Grains Council. Statistical Handbook. 1991 Table 32, p.123; Table 33, p127, Table 35, p.142 and 2000 Table 34, p.127, Table 35, p.131, Table 36, p.141

1. 1 CWRS 13.5% protein. Basis In Store St. Lawrence CWB Selling Quotations
2. 1 CWRS. Basis In Store St. Lawrence or Vancouver CWB Payments to Producers
3. Cash Grain. Canola. 1 Canada. Av. Close. Winnipeg 1980/81 to 1988/89, Vancouver thereafter

Table 30
Export Shipments by Mode of Transport, 1999
(Millions and % Distribution)

	\$ Millions				% Distribution			
	MB	SK	AB	Prairies	MB	SK	AB	Prairies
Road	4,310	1,819	7,232	13,361	54%	18%	21%	26%
Rail	1,220	2,094	3,700	7,014	15%	21%	11%	13%
Water	1,408	4,351	5,615	11,374	18%	44%	16%	22%
Air	112	36	1,040	1,188	1%	0%	3%	2%
Other	932	1,616	16,845	19,393	12%	16%	49%	37%
Total	7,981	9,915	34,431	52,327	100%	100%	100%	100%

Source: Statistics Canada, Merchandise Trade,
Domestic Exports by Province of Origin by Mode of Transportation, Cat. 65-202-XPB

Table 31
Leading International Export Sectors, 1998.

	\$ Millions	% Total Exports	% Goods Exports
MANITOBA			
1. Automotive & Transport Equipment	1,303.70	15%	18%
2. Agricultural Products, not Grains	791.20	9%	11%
3. Primary Metals	739.30	8%	10%
4. Machinery & Equipment	633.70	7%	9%
5. Grains	619.10	7%	8%
Total All Exports including Services	8,700.00	100%	
Total Goods Exports	7,308.90		100%
SASKATCHEWAN			
1. Grains	2,094.30	18%	23%
2. Chemicals, Pharmaceuticals & Chemical Products	1,833.50	16%	21%
3. Mineral Fuels	1,326.40	12%	15%
4. Agricultural Products, not Grains.	1,143.60	10%	13%
5. Metal ores and concentrates	826.50	7%	9%
Total All Exports including Services	11,415.50	100%	
Total Goods Exports	8,942.50		100%
ALBERTA			
1. Mineral Fuels	10,866.80	32%	41%
2. Chemicals, Pharmaceuticals & Chemical Products	2,509.80	7%	9%
3. Petroleum and Coal Products	1,664.70	5%	6%
4. Agricultural Products, not Grains.	1,430.00	4%	5%
5. Grains	1,327.20	4%	5%
Total All Exports including Services	33,476.90	100%	
Total Goods Exports	26,758.10		100%

Source: Statistics Canada, Interprovincial and International Trade in Canada, 1992-1998, 15-546-XPE, 2000.

Table 32
Principal International Purchasers of Canadian Grains, Canola and Canola Products,
1980/81 – 1999/2000 Crop Years

WHEAT	1980/81	1999/00	Change	percent	Canola	1980/81	1999/00	Change	percent
Brazil	1,284	114			Bangladesh	36	-		
China	2,879	661			China	-	1,211		
Indonesia	-	693			Germany, West	38			
Iran	96	3,492			Japan	1,147	1,801		
Japan	1,333	1,242			Korea, South	26	22		
Mexico	27	814			Mexico	-	570		
UK	1,397	410			Netherlands	54	-		
USSR	3,476	-			USA	-	288		
USA	-	1,158							
Total	10,492	8,584	- 1,908	-18%	Total	1,301	3,892	2,591	199%
Durum					Canola Oil				
Algeria	654	1,453			Algeria	10	-		
Italy	526	152			China	1	22		
Japan	48	197			Hong Kong	15	49		
Morocco	-	472			India	107	-		
Poland	93	54			Japan	17	-		
USA	-	297			Malaysia	-	40		
USSR	496	-			Netherlands	24	-		
Venezuela	-	359			Taiwan	-	26		
					USA		410		
Total	1,817	2,984	1,167	64%	Total	174	547	373	214%
Barley					Canola Meal				
China	-	428			Ireland	1	19		
Israel	124	-			Japan	2	24		
Italy	344	-			Netherlands	18	-		
Japan	805	376			Norway	66	-		
Mexico	-	99			South Korea	-	56		
Poland	147	-			Taiwan	-	11		
Saudi Arabia	-	160			UK	12	-		
USA	111	595			USA	22	1,135		
USSR	1,573	-							
Total	3,104	1,658	- 1,446	-47%	Total	202	1,245	1,043	516%

Source: Canada Grains Council. Statistical Handbook, Winnipeg, 1991, Table 24, p.72-80 and 2000, Table 25, pp. 65-81

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