Beyond Our Borders:

Western Canadian Exports in the Global Market

A Building the New West Project Report

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BUILDING THE NEW WEST

This report is part of the Canada West Foundation's **Building the New West Project,** a multi-year research and public consultation initiative focused on the strategic positioning of western Canada within the global economy.

Five key priorities emerged from an extensive research and consultation process and provide a framework for the Building the New West Project:

- the West must create the tools to attract, retain and build HUMAN CAPITAL;
- the West must continue ECONOMIC DIVERSIFICATION;
- the West must strengthen its TRANSPORTATION INFRASTRUCTURE;
- · the West must promote the global competitiveness of its MAJOR CITIES; and
- the West must develop new ways of facilitating REGIONAL COORDINATION.

To learn more about the BNW Project, please visit the Canada West Foundation web site (www.cwf.ca).

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1. INTRODUCTION

The importance of western Canada's international exports has increased dramatically since the 1980s. In real per capita terms (i.e., controlling for both population increases and price changes), western Canada exported \$7,168 more per person in 2000 than it did in 1981. This amounts to a real increase in the volume of international exports of \$76 billion or 221%. As a result, the West's export-to-GDP ratio was 36% in 2000 compared to 19% in 1981.

These statistics point to a *fundamental* shift in the economy of western Canada and highlight the increased importance of international exports and foreign demand to the current and future prosperity of the region.

The trade data also reveal a growing reliance on the United States as a consumer of western Canadian exports, as well as significant differences within the West and between the West and the rest of Canada. These differences are important to note because public policy – both regional and national – must take them into account or risk undermining the competitive position of the region and the country.

This report places western Canadian international export data in context and outlines reasons for, and implications of, the changes that have taken place. The report also examines the unique characteristics of western Canadian trade and how the region compares to other parts of the country.

In the interests of brevity and clarity, the analysis that follows is focused on international *exports* and leaves imports for consideration elsewhere.

2. THE WEST IN THE GLOBAL ECONOMY

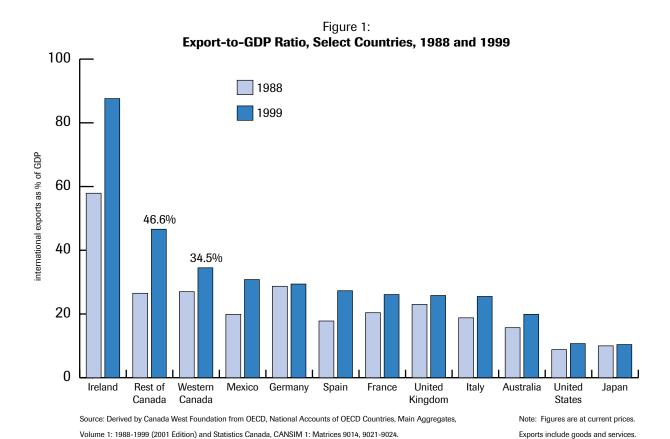
Although barriers to the free movement of goods and services remain, efforts to liberalize international trade through multilateral arrangements such as the General Agreement on Tariffs and Trade and regional trade arrangements such as the Auto Pact and the North American Free Trade Agreement have facilitated a significant increase in international trade since the Second World War.

The volume of international merchandise exports increased at an average annual rate of 7% between 1950 and 2000, and the value of international merchandise exports was over \$6 trillion (US) in 2000. Western Canada has been an active participant in this trend and has taken advantage of the economic efficiencies made possible by a more liberal trade environment (e.g., comparative advantage, specialization, and economies of scale). These efficiencies are, in turn, critically important to western Canada's ability to maintain and increase its economic prosperity.

Measured against other countries, Canada is the sixth largest exporter in the world. If Western Canada were placed on the list, it would rank twenty-third (ahead of Thailand, Australia, Indonesia, Brazil, and India).

At about 43% in 1999, Canada has a relatively high export-to-GDP ratio compared to other developed counties, and has the highest ratio among the G7. As Figure 1 illustrates, western Canada's export-to-GDP ratio is somewhat lower than that of the rest of the country, but still stands at the upper end of the international continuum. Our position on this continuum highlights the importance of exports to both the regional and national economy.

^{1.} Export and GDP statistics expressed in real price terms control for the effects of price changes. They indicate, in other words, changes in the **volume** of trade and economic production. Statistics expressed in current (nominal) terms include the effects of price changes. Please see the Appendix for more discussion of real versus current trade data.



Given the small size of the Canadian market and our proximity to, and special relationship with, the United States and its enormous economy, our heavy reliance on international exports is not surprising. The abundant natural resources and special access to the US market that underpin our export economy place Canada in an enviable position. Nonetheless, our dependence on international exports combined with a continued reliance in western

Canada on natural resource and agricultural products brings

with it a set of challenges that must be addressed to ensure

long-term economic success.

Among these challenges is the continuing quest for economic diversification in the West, and the stability and jobs associated with value-added production. A second challenge is ensuring that western Canada's transportation

system is able to deliver our goods to market on time and at competitive prices. Western Canada's physical girth, difficult terrain, variable weather and low population density all threaten the competitiveness of western producers vis-à-vis producers that do not face similar obstacles to fast and low-cost transportation.

In addition, we must ensure that we develop and attract the human capital that can perform the specialized roles that lead to success in the global economy.

3. THE RISING IMPORTANCE OF INTERNATIONAL EXPORTS

Measured as a percentage of GDP, international exports of both goods and services have dramatically increased since

Export-to-GDP Ratio, 1981 and 2000 60 services 54.0% goods 48.2% 50 44.3% nternational exports as % of GDP 40 37.6% 35.8% 33.5% 30.2% 30 22.4% 22.2% 21.8% 20.8% 18.8% 20 15.7% 12.7% 10 2000 1981 2000 2000 2000 2000 2000 0 BC ΑB SK MΒ The Rest of ON West Canada

Figure 2:

Source: Derived by Canada West Foundation from Statistics Canada, CANSIM 1: Matrices 10611, 10601-10605.

Note: Figures are in real terms using 1997 prices on a balance of payments basis. The Rest of Canada category includes Ontario.

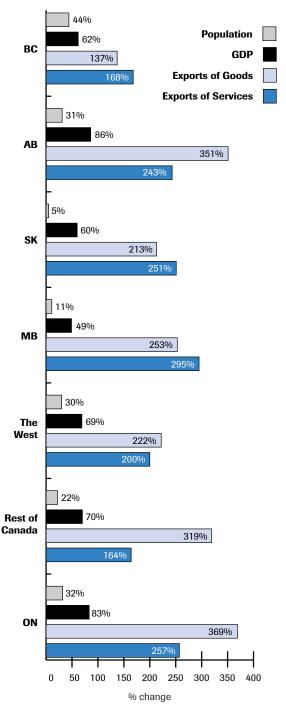
the early 1980s, with Saskatchewan leading the pack in the West with an export-to-GDP of ratio of over 44% (see Figure 2). The export-to-GDP ratios of Alberta and Manitoba more than doubled between 1981 and 2000. Over the same period, Saskatchewan's ratio almost doubled and British Columbia's jumped by over 11 percentage points from 22.2% to 33.5%.

As Figure 2 illustrates, international exports are a much larger part of the western Canadian economy than they were 20 years ago. As a result, changes that affect the export sector (e.g., commodity price fluctuations, war and the threat of war, economic swings in foreign countries, Canada-US relations) are deeply felt throughout the regional economy. At the same time, international markets demand that western Canadian producers find ways to stay competitive.

Figure 2 also highlights some key differences within the West and between the West and the rest of Canada. A relatively large component of British Columbia's international exports are services (6.7% of GDP in 2000 compared to an average of 3.5% for the Prairie provinces). For both Manitoba and British Columbia, international exports represent a smaller portion of economic output than is the case for Alberta and Saskatchewan.

It is important to note the particularly stark contrast between Ontario and the West (a recurring theme in this report). At 54%, Ontario's export-to-GDP ratio is the highest in the country and sets it apart from the other provinces. This reflects Ontario's heavy reliance on the trade generated by the integrated North American automobile industry. In 2000, Ontario exported over \$86

Figure 3:
Population Growth, Real GDP Growth
and Real Export Growth, 1981-2000 (% change)



Source: Derived by Canada West Foundation from Statistics Canada,
CANSIM 1: Matrices 10611, 10601-10605 and Catalogue 91-213.
Note: GDP and trade figures are in real terms using 1997 prices on a balance
of payments basis. The Rest of Canada category includes Ontario.

billion in automotive products – more than *all* exports from the three Prairie provinces.

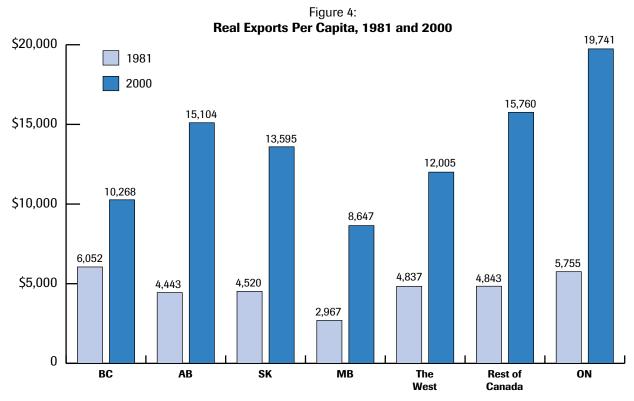
Because of its size and concentration in Ontario, Canada's auto industry skews national level export data and obscures fundamental regional differences. Hence the importance of examining export data on a provincial and regional basis and the need to avoid a cookie cutter approach to policy development. For example, the needs and concerns of an exporter of forest products in BC are quite different from those of an auto parts manufacturer in Ontario.

Figures 3 and 4 reinforce the magnitude of the increase in international exports that has taken place over the last 20 years.

Figure 3 juxtaposes changes in export levels with population growth and overall economic growth measured in terms of changes to real GDP. In all four western provinces, the growth of international exports between 1981 and 2000 is much greater than both population and economic growth over the same period.

The real value of international exports of goods and services from the West increased by 221% compared to population growth of 30% and real GDP growth of 69%. Alberta stands out in the West as the province that has seen the largest percent change in the real value of the goods it exports from about \$9 billion in 1981 to almost \$41 billion in 2000.

Expressed in per capita terms, the sharpness of the change in the economy's orientation toward international exports becomes even clearer (see Figure 4). In 1981, the real value of the West's international exports equaled \$4,837 per westerner. By 2000, this figure was \$12,005. Once again, Ontario stands out as a unique case with real per capita exports of almost \$20,000 in 2000.



Source: Derived by Canada West Foundation from Statistics Canada, CANSIM 1: Matrices 10611, 10601-10605 and Catalogue 91-213.

Note: Figures are in real terms using 1997 prices on a balance of payments basis and include goods and services. The Rest of Canada category includes Ontario.

It is important to note that, because of strong oil and natural gas prices in 2000, Alberta's per capita international exports were higher than Ontario's when measured in current (i.e., year 2000) prices. In current dollars, Alberta exported \$20,113 per capita in 2000 and Ontario \$20,004. (Please see the Appendix for a discussion of the effects of real and current prices on the interpretation of the value of Alberta's international exports.)

Interprovincial Trade

The growth in international exports has not been accompanied by a similar growth in trade among the provinces (see Figure 5). Real growth in interprovincial trade relative to GDP has been either flat (British Columbia and Manitoba), moderate (Saskatchewan), or negative

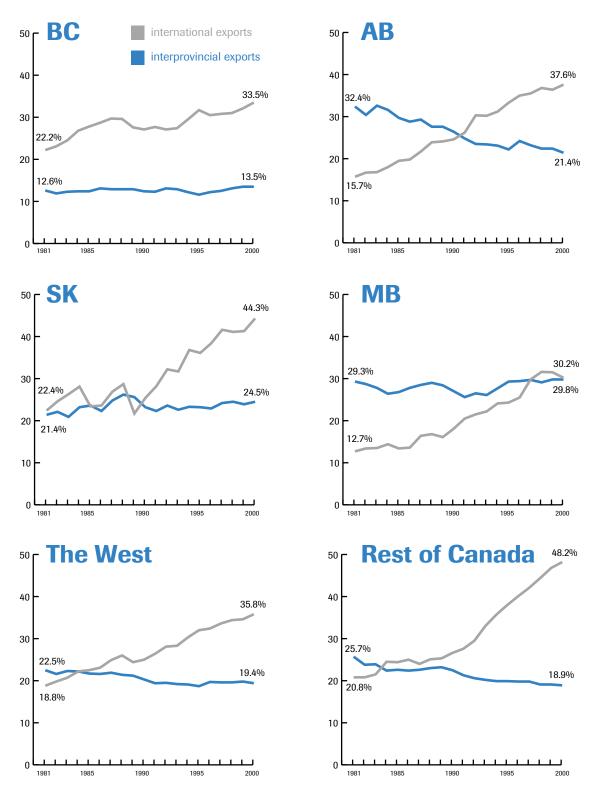
(Alberta and the rest of Canada) over the 1981-2000 period. As a region, the western Canadian provinces exported only \$6,511 per person to other provinces in 2000 compared \$12,005 to other countries.

British Columbia – The gap between international exports and interprovincial exports has increased in BC.

Saskatchewan – Saskatchewan began the 1980s exporting about the same amount to foreign markets as it did to other provinces. By 2000, Saskatchewan was exporting almost twice as much to the world as to other parts of Canada.

Alberta – Alberta reversed its export orientation from a focus on the domestic market to one focused on the US and other parts of the world.

Figure 5: Real Interprovincial Exports Compared to Real International Exports, 1981-2000 (% of GDP)



Source: Derived by Canada West Foundation from Statistics Canada, CANSIM 1: Matrices 10611, 10601-10605.

Note: Figures are in real terms using 1997 prices on a balance of payments basis and include goods and services.

Manitoba - Manitoba stands out in the West as a province that exports about the same amount interprovincially as it does internationally. Manitoba's international exports have, however, caught up to its interprovincial exports.

Outside the West, the picture is much the same but somewhat exaggerated as international trade has increased sharply to 48.2% of GDP and internal trade growth has been stagnant (interprovincial exports as a percentage of GDP dropped from 20.8% in 1981 to just under 19% in 2000). The widest gap between interprovincial trade and foreign trade is found in Ontario (Ontario exported \$6,616 per person to other provinces in 2000 and \$19,741 to other countries).

The data depicted in Figures 1 through 5 highlight the fact that Canada is a small market and that western Canadians, indeed Canadians in general, have looked beyond the country's borders for markets in which to sell their wares.

The depth and speed of the change signals a dramatic restructuring of the regional and Canadian economies, and shows that a good deal of the economic growth over the last 20 years is the result of expanding international trade.

The export economy is, moreover, a driver of the domestic economy and a major source of employment and tax revenue. It follows that maintaining our international competitiveness is central to our ability to maintain and improve our standard of living and way of life.

4. REASONS FOR THE GROWTH IN INTERNATIONAL EXPORTS

In addition to the opportunities and challenges created by a more open global trading environment, there are two main reasons for the steep increases in western Canada's international exports: 1) strong and prolonged US demand; and 2) the Free Trade Agreement (FTA) of 1989 and the North American Free Trade Agreement (NAFTA) of 1994.

Strong US Demand

Because of western Canada's huge volume of trade with the US (over half a trillion dollars of merchandise exports between 1990 and 2001), the West's level of international exports tends to increase when the US economy expands.

The US economy has grown in real terms from \$4.9 trillion (US) in 1980 to \$9.3 trillion (US) in 2001 (see Figure 6). Post-recession growth in the 1990s has been particularly strong with real quarter over quarter GDP growth averaging 3.3% between the second quarter of 1991 and the fourth quarter of 2001. Over roughly the same period, the value of the West's merchandise exports to the US increased by 275% compared to 28% for the West's exports to all other countries (in current terms).

Living next to the world's largest economy is a definite advantage for an exporting region like western Canada. US demand for oil and gas, forest products, agricultural products, fertilizer, and manufactured goods have all spurred western Canada's exports to the US. Ontario's exports to the US, by contrast, are almost exclusively manufactured products with relatively little natural resource-based trade.

Free Trade With the US

The FTA and NAFTA increased Canada's access to the massive US market and continued the trend toward a North-South rather than an East-West trade orientation. Reduced trade barriers between the two countries have tied the West and Canada even more closely to the United States economy and further enhanced specialization and growth in the manufacturing sector. Stubborn interprovincial barriers to

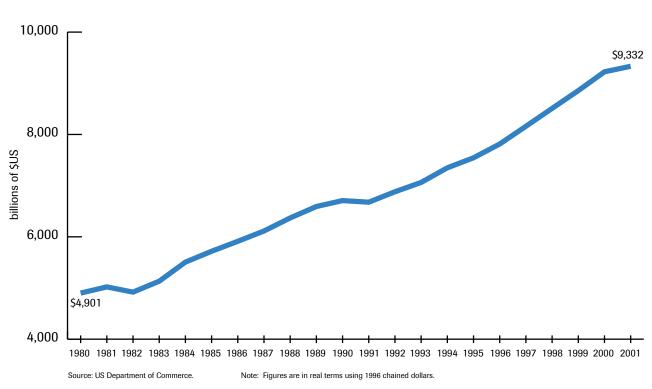


Figure 6: United States Real GDP, 1980 - 2001

the free movement of goods and services within Canada have reinforced the trend toward North-South trade.

Western Canada's trade with Mexico is very small at 0.9% of the West's total international merchandise exports in 2001 (about \$1 billion). Nonetheless, the value of the West's exports of goods to Mexico has increased by 199% since the implementation of the NAFTA (1993 compared to 2001 in real 2001 dollar terms).² In addition, the West's exports to Mexico are underestimated because at least some portion of Canadian exports destined for Mexico are exported to the US and re-exported from there to Mexico.

Globalization, US demand, and our proximity to, and special relationship with, the US have all contributed to the rapid rise in the importance of international exports to the western

Canadian economy. These factors have both enabled and pushed western producers to expand their already extensive ties with the US and other foreign markets.

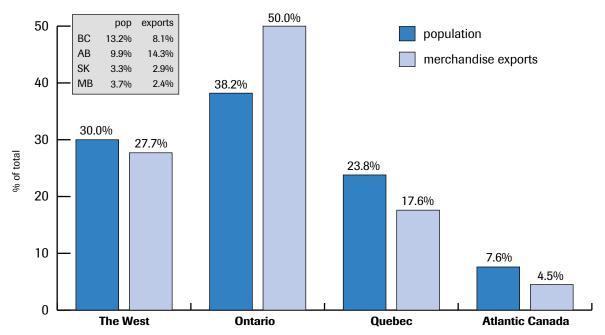
Ultimately, it is the efforts of western producers to find foreign customers and improve the competitiveness of our goods and services through investment, research and development, and innovation that determines the West's success in the global market. Trade agreements remove barriers but they do not cause trade to happen.

The West's ability to reap the benefits of international trade over the long-term rests in the hands of western exporters and the public policies that do, or do not, assist them in this endeavour. Public policies that create an environment conducive to free trade, domestic and foreign investment,

^{2.} Expressing export data in real dollar terms is not the same as expressing it in real price terms (though both control for price changes). Please see the Appendix for more discussion.

Figure 7:

International Merchandise Exports by Region and Population Share, 2001
(% of total Canadian international merchandise exports and % of total population)



Source: Derived by Canada West Foundation from Industry Canada Trade Date Online and Statistics Canada.

Note: Figures are at current prices on a customs basis and do not include service exports.

research and development, value-added production, human capital formation and efficient transportation are critical factors that must work in tandem with the efforts of western producers.

5. INTERNATIONAL EXPORTS BY REGION

The West's share of Canada's international merchandise exports (i.e., goods) is somewhat less than its share of the national population (see Figure 7). This reflects the export dominance of Ontario.

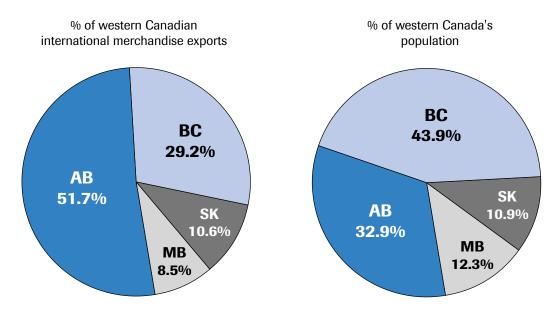
When Ontario is removed from the equation, the West's share of the population of Canada less Ontario is 48.6% and its share of international merchandise exports is 55.3%. (In this scenario, Quebec's share of the population is 38.6% and

its share of exports is 35.2%; Atlantic Canada's share of the population is 12.3% and its share of exports is 9.1%.)

British Columbia exports less goods to foreign countries than its population size would suggest while Alberta exports more. The Asian economic flu dampened British Columbia's export activity and helps explain the recent slide in the relative size of its international merchandise exports from over 10% of the national total during the first half of the 1990s to just over 8% in 2001.

The relative size of Alberta's international merchandise exports needs to be interpreted with some caution because of the fluctuations caused by changes to the price of oil and natural gas. Alberta's strong showing in 2001 is due in large part to a spike in the international market value of oil and

Figure 8: International Merchandise Exports, Western Provinces, 2001



Source: Derived by Canada West Foundation from Industry Canada Trade Date Online and Statistics Canada.

Note: Figures are at current prices on a customs basis and do not include service exports.

natural gas. In 1998, when oil and natural gas prices were relatively low, Alberta's share of the national total (9.8%) was more in keeping with its population share. Over the 1990-2001 period, Alberta's share of the national total averaged 11.5% – still slightly higher than its share of the national population.

Within the West, Alberta stands out as the dominant exporter of goods to foreign countries at 51.7% of the regional total in 2001 compared to 32.9% of the regional population (see Figure 8). Again, because oil and natural gas prices were relatively high in 2001, Alberta's share of the region's exports was pushed upward. In 1998, Alberta's share was 41.0%.

Despite these fluctuations, Alberta is consistently the largest exporter in the region and exports a larger percentage of the regional total than its share of the regional population. These fluctuations highlight the importance of oil and

natural gas price changes to Alberta's export sector and to the provincial government's annual revenues.

Throughout the West, a continuing reliance on natural resource and agricultural products exposes all four provinces to volatile commodity prices and injects a large dose of instability into the region's export sector.

6. EXPORTS TO THE US

Because the United States is the destination of most of our international exports, US demand has a dramatic influence on Canada's international export levels. Canada's exports to the US have increased in the 1990s in both absolute terms and as a percentage of total international merchandise exports (see Figure 9). Merchandise exports to the US were about 85.0% of total international merchandise exports in

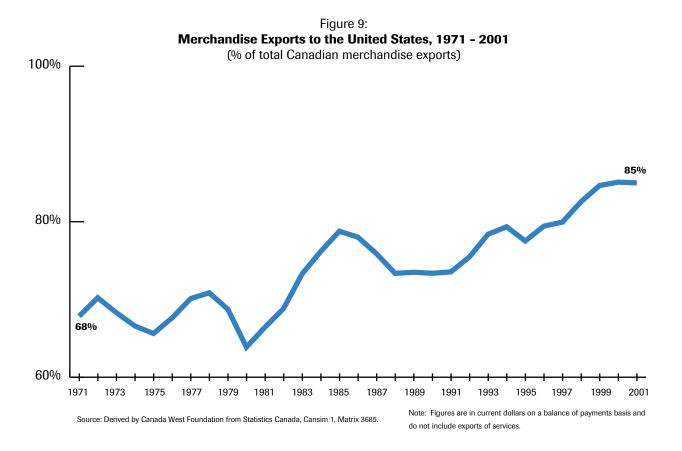
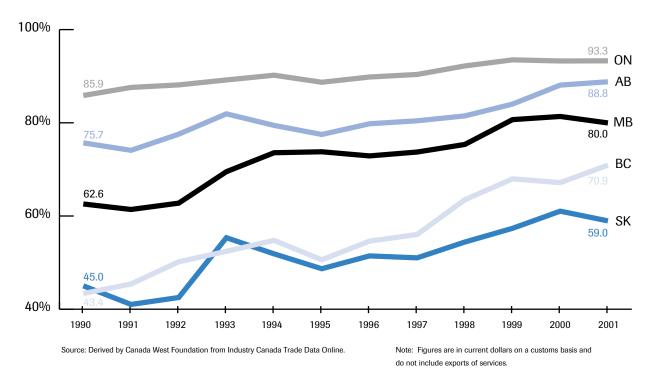


Figure 10: Average Annual Canada-US Exchange Rate, 1950-2001 (expressed in \$US terms) \$US 1.2 1.0 0.95 8.0 0.65 0.6 1965 1970 1975 1980 1985 2000 1950 1955 1960 1990 1995 Source: Bank of Canada.

Figure 11:

Merchandise Exports to the United States by Province, 1990 - 2001
(% of total merchandise exports)



2001 (\$351 billion). This is down slightly from 2000 (\$360 billion and 85.1% of the total) due to the slowing of the US economy and the effects of the September 11th terrorist attacks.

In unadjusted terms, Canada sold \$12.1 billion worth of goods to the US in 1971 compared to \$351 billion in 2001 – a percent change of 2,801%. Adjusting for inflation (i.e., using real 2001 dollars), Canada sold about \$56.3 billion worth of goods to the US in 1971 compared to \$351 billion in 2001 – a percent change of 523%. This represents a massive increase in our trade with the US over the last 30 years.

Part of the increase in the value of Canada's exports of goods to the US is explained by the drop in value of the Canadian dollar compared to the US dollar (see Figure 10). Using average annual Canada-US exchange rates to convert

the inflation adjusted value of Canadian exports to the US into US dollars, the percent change over the 1971-2001 period drops to 307%. This is still an extremely high number.

Even when the effects of inflation and the devaluation of the Canadian dollar are taken into account, it is clear that Canada is selling more to the US and that exports to the US form a much larger portion of total Canadian exports than in the past.

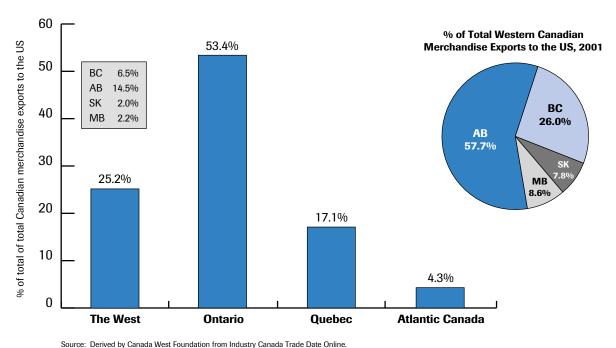
As Figure 11 illustrates, the degree to which the western provinces rely on the US market varies considerably across the region, from a low of 59.0% in Saskatchewan to a high of 88.8% in Alberta. Manitoba and British Columbia split the difference at 80.0% and 70.9% respectively.

Once again, Ontario stands out within Canada as being particularly reliant on the US, with 93.3% of its foreign

^{3.} Expressing export data in real dollar terms is not the same as expressing it in real price terms (though both control for price changes). Please see the Appendix for more discussion.

Figure 12:

Merchandise Exports to the United States by Region, 2001
(% of total Canadian merchandise exports to the US)



Note: Figures are at current prices on a customs basis and do not include service exports.

exports going south of the border. Less than 7% (\$13.5 billion) of Ontario's exports go to countries other than the US. Nonetheless, because of the large size of its export sector, Ontario's exports to countries other than the US are greater than either Saskatchewan's or Manitoba's exports to all countries including the US.

Figure 11 also shows that merchandise exports to the United States as a percentage of total foreign merchandise exports have been on the rise in all four western provinces. Although British Columbia and Saskatchewan remain less dependent on the US market than do Alberta and Manitoba, the gap has closed to some degree.

The increased importance of the United States to the western Canadian economy raises a number of policy

challenges including the need to maintain access to the US market, the need to remain the supplier of choice for US importers, and the need to ensure that increased border security in the wake of September 11th does not become a barrier to Canada-US trade and the economic growth it generates in both countries.

Canada possesses a number of advantages over foreign competitors trying to break into the US market (e.g., a common language, the trust and familiarity that comes along with a tradition of two-way trade and investment, physical proximity, and formal trade arrangements in the form of the FTA and the NAFTA).

Despite this, we cannot rest on our laurels in the face of mounting global competition. Mexico, for example, has increased its share of US merchandise imports from 6.1% in 1990 to 11.5% in 2001 while Canada's share has remained flat at around 19%.

Cheaper and/or better products tend to outweigh other factors – especially as US importers become more comfortable with new suppliers. Hence the need for constant maintenance of our relationship with the US. This takes place at a range of levels – from meetings of the Canadian Prime Minister and the US President to small businesses maintaining existing trade links and forging new ones. Intergovernmental contacts between western states and the western provinces are also critical.

In addition, Canadian suppliers need to be constantly seeking ways to ensure their competitiveness through productivity improvements and innovation. Good relations can only go so far if the goods and services we have to sell are not as good as, or cost significantly more than, those supplied by our competitors. This can lead to a vicious circle in which Canadian producers earn lower profits because production costs are higher than those of foreign competitors. This, in turn, reduces the capital available to invest in the new equipment and new methods that lower production costs.

As is the case with exports to all countries, Ontario is the main source of Canada's exports to the United States with a 53.4% share (see Figure 12). The western provinces account for about a quarter of the total.

Within the West, Alberta is the dominant source of exports to the US at 57.7% of the total due in large part to exports of oil and natural gas. Once again, the prices of oil and natural gas have a significant influence on Alberta's share of exports to the US with high prices driving it up (57.7% in 2001) and low prices driving it down (47.1% in 1998).

Figure 13:

Merchandise Exports, Top Ten Destinations,
1990 and 2001

	19	90	20	01
	\$ millions	% of total	\$ millions	% of total
British Columbia	1111110113	or total	millions	oi totai
United States	7,445	43.4	22,986	70.9
Japan	4,646	27.1	3,908	12.1
China	201	1.2	767	2.4
Korea, South	611	3.6	760	2.4
Italy	348	2.0	526	1.6
United Kingdom	696	4.1	386	1.2
Germany	519	3.0	382	1.2
Taiwan	241	1.4	315	1.0
Belgium	382	2.2	306	0.9
Hong Kong	95	0.6	269	0.8
OTHERS	1,981	11.5	1,807	5.6
TOTAL	17,165	100.0	32,412	100.0
Alberta				
United States	11,721	75.7	51,063	88.8
Japan	1,100	7.1	1,288	2.2
China	325	2.1	910	1.6
Mexico	50	0.3	488	0.9
Korea, South	342	2.2	464	0.8
Taiwan	155	1.0	211	0.4
United Kingdom	73	0.5	193	0.3
Italy	43	0.3	175	0.3
Iran	62	0.4	169	0.3
Venezuela	16	0.1	124	0.2
OTHERS	1,597	10.3	2,415	4.2
TOTAL	15,485	100.0	57,501	100.0
Saskatchewan				
United States	2,451	45.0	6,947	59.0
China	551	10.1	682	5.8
Japan	655	12.0	661	5.6
Mexico	20	0.4	272	2.3
India	22	0.4	217	1.8
Iran	86	1.6	208	1.8
France	16	0.3	177	1.5
Algeria	76	1.4	176	1.5
Belgium Morocco	65	1.2	165	1.4
OTHERS	3 1,501	0.1 27.6	150 2,129	1.3 18.1
TOTAL	5,445	100.0	11,784	100.0
	0,440	100.0	11,704	100.0
Manitoba	0.000		7.570	
United States	2,030	62.6	7,578	80.0
Japan Mexico	245	7.6	438 176	4.6
China	13	0.4 E.2		1.9
Belgium	168 94	5.2 2.9	147 143	1.6 1.5
Hong Kong	7	0.2	132	1.4
Iran	37	1.1	71	0.8
United Kingdom	70	2.2	52	0.6
Taiwan	42	1.3	52	0.6
Australia	10	0.3	39	0.4
OTHERS	528	16.3	647	6.8
TOTAL	3,244	100.0	9,476	100.0

Source: Industry Canada Trade Data Online.

Note: Figures are at current prices on a customs basis and do not include service exports.

Figure 13 reinforces the dominant role played by the US market. Exports to the US dwarf those to other countries in all four western provinces. Even British Columbia's traditional orientation toward Asian markets has declined in recent years as the US looms larger and economic downturns in Asia have reduced demand from that region. British Columbia's merchandise exports to Japan were 27.1% in 1990 compared to only 12.2% in 2001.

In addition to the drop in relative size, British Columbia's exports to Japan have declined in absolute terms as well. Adjusting for inflation, British Columbia's exports to Japan have dropped 32.6% since 1990.

In general, the "Asian Miracle" that was supposed to dramatically increase the West's trade with Asia has not happened. On the bright side, there is room for significant growth in our exports to this part of the world and the West's (particularly BC's) ties with Asia will facilitate increased trade with Asian countries. In the meantime, the trade data indicate that western Canada is firmly focused on the US market and that this focus has increased during the 1990s.

7. WHAT THE WEST SELLS

Figure 14 outlines the top 25 merchandise exports by industry for the four western provinces, with Ontario and Canada as a whole included for comparison. The first thing that jumps out of the data is the West's continuing reliance on natural resources and agriculture.

British Columbia – Over 40% of British Columbia's merchandise exports in 2001 were produced by the forestry sector. The top ten exports from British Columbia were all natural resource or agricultural products and accounted for almost two-thirds of its merchandise exports in 2001.

Alberta – Alberta's export sector is dominated by oil and gas extraction (59.8% of total merchandise exports in 2001). Even when the price of oil and gas is down, oil and gas extraction hovers at near half of Alberta's exports.

Saskatchewan - Saskatchewan's top export industry oscillates between oil and gas extraction, wheat farming, and mining (including potash and uranium) depending on the market price of the commodities in question. Overall, Saskatchewan's merchandise exports are dominated by raw natural resource and agricultural commodities.

Manitoba - Manitoba stands out in the West as the province with the most diversified export sector. Manitoba's merchandise exports are, relatively speaking, evenly spread over a range of commodities including smelted metal, oil and gas, wheat, processed agricultural products, power generation, and auto and airplane parts. Nonetheless, agricultural products are dominant and most of Manitoba's exports are connected to the natural resource and agricultural sectors. Both Manitoba and British Columbia export significant amounts of electricity (5.6% and 6.4% respectively).

When the mix of exports from the West is compared to Ontario's exports, it is clear that the two economies are vastly different. Ontario is a hotbed of manufacturing (especially cars and car parts) and exports relatively little in the way of raw natural resource commodities or agricultural products.

The West stands out in Canada as a resource and agricultural producing region. Despite significant increases in value-added (i.e., manufactured) exports, the West remains in many ways a "hewer of wood and drawer of water." In this regard, the West has more in common with Atlantic Canada than Ontario or Quebec (though a large proportion of Quebec's

Figure 14:

British Columbia - International Merchandise Exports by Top 25 Industries (5-digit NAICS codes), 1995-2001 (% of total)

	1995	1996	1997	1998	1999	2000	2001
Sawmills and Wood Preservation (M)	27.55	30.96	30.58	25.94	26.32	21.10	22.06
Pulp Mills (M)	19.59	12.81	11.29	10.3	11.05	12.76	9.47
Oil and Gas Extraction (R)	1.97	2.35	2.88	3.80	4.28	7.44	8.42
Electric Power Generation (R)	0.23	0.46	0.82	1.21	1.54	5.65	6.44
Paper Mills (M)	7.70	7.25	5.87	6.44	5.92	5.18	5.32
Coal Mining (R)	5.01	7.23	7.30	6.74	4.35	3.79	4.41
Veneer, Plywood and Engineered Wood Product Manufacturing (M)	2.21	2.64	3.14	3.76	4.39	3.09	3.38
Seafood Product Preparation and Packaging (M)	1.95	2.24	1.83	1.65	1.48	1.54	1.74
Alumina and Aluminum Production and Processing (M)	1.86	2.01	1.90	2.07	1.79	1.85	1.60
Copper, Nickel, Lead and Zinc Ore Mining (R)	3.09	2.18	2.28	1.46	0.95	1.59	1.42
Other Industrial Machinery Manufacturing (M)	0.59	0.96	1.11	1.06	1.27	1.26	1.24
Logging (R)	0.38	0.30	0.23	0.57	0.96	1.05	1.22
Semiconductor and Other Electronic Component Manufacturing (M)	0.27	0.41	0.58	0.95	1.39	2.74	0.95
New and Used Automobile/Light Truck Wholesaler-Distributors (W)	0.16	0.13	0.09	0.29	0.48	0.57	0.94
Animal Aquaculture (R)	0.63	0.56	0.76	0.90	0.86	0.65	0.82
Non-Ferrous Metal (except Aluminum) Smelting and Refining (M)	0.98	1.22	1.67	1.73	1.75	1.47	0.80
Other Basic Organic Chemical Manufacturing (M)	1.51	1.10	1.37	0.94	0.71	0.76	0.79
Paperboard Mills (M)	1.02	0.82	0.63	0.70	0.78	0.75	0.75
Navigational, Measuring, Medical and Control Instruments Manufacturing (M)	0.33	0.42	0.53	0.60	0.58	0.59	0.66
Glass and Glass Product Manufacturing (M)	0.20	0.21	0.28	0.55	0.68	0.85	0.65
Ship and Boat Building (M)	0.14	0.26	0.22	0.40	0.46	0.31	0.64
Other Plastic Product Manufacturing (M)	0.20	0.28	0.37	0.57	0.69	0.60	0.63
Fishing (R)	0.58	0.56	0.56	0.57	0.64	0.53	0.63
Printing (M)	0.29	0.30	0.33	0.41	0.43	0.46	0.57
Millwork (M)	0.38	0.48	0.53	0.66	0.99	0.63	0.57
SUB-TOTAL SUB-TOTAL	78.81	78.13	77.18	74.27	74.74	77.2	76.1
OTHERS	21.19	21.87	22.82	25.73	25.26	22.8	23.9
TOTAL (ALL INDUSTRIES)	100	100	100	100	100	100	100

Alberta - International Merchandise Exports by Top 25 Industries (5-digit NAICS codes), 1995-2001 (% of total)

	1995	1996	1997	1998	1999	2000	2001
Oil and Gas Extraction (R)	45.08	47.81	49.41	47.66	50.30	57.78	59.78
Animal Slaughtering and Processing (M)	2.58	2.72	3.33	3.96	4.37	3.23	3.84
Petroleum Refineries (M)	7.40	8.06	6.69	2.97	2.36	3.80	3.40
Pulp Mills (M)	4.86	2.48	3.12	3.80	3.71	2.99	2.27
Resin and Synthetic Rubber Manufacturing (M)	4.07	3.19	2.17	1.83	1.98	1.62	2.24
Wheat Farming (R)	3.84	4.61	4.25	3.53	2.84	2.14	2.14
Telephone Apparatus Manufacturing (M)	1.62	1.96	1.61	1.90	2.39	4.79	2.07
Other Basic Organic Chemical Manufacturing (M)	3.62	2.56	2.46	2.42	2.18	1.85	2.06
Radio and TV Broadcasting/Wireless Equipment Manufacturing (M)	0.85	1.13	1.38	2.14	2.61	2.59	1.75
Beef Cattle Ranching and Farming, including Feedlots (R)	2.49	2.33	1.97	2.23	1.34	0.92	1.24
Sawmills and Wood Preservation (M)	0.81	2.11	2.26	2.15	2.40	1.26	1.23
Petrochemical Manufacturing (M)	0.83	0.94	1.10	0.95	0.82	1.18	0.89
Fertilizer Manufacturing (M)	1.33	1.28	1.70	1.75	1.75	1.13	0.85
Veneer, Plywood and Engineered Wood Product Manufacturing (M)	0.98	0.76	0.80	1.39	1.68	0.89	0.82
Oilseed (except Soybean) Farming (R)	1.93	1.27	1.31	1.66	1.30	0.70	0.81
Coal Mining (R)	2.87	1.73	1.67	1.74	1.70	0.68	0.68
Mining and Oil and Gas Field Machinery Manufacturing (M)	0.30	0.35	0.44	0.80	0.34	0.28	0.52
Engine, Turbine and Power Transmission Equipment Manufacturing (M)	0.29	0.33	0.35	0.44	0.41	0.38	0.52
Navigational, Measuring, Medical and Control Instruments Manufacturing (M)	0.39	0.44	0.5	0.52	0.42	0.35	0.45
Starch and Vegetable Fat and Oil Manufacturing (M)	0.85	0.70	0.83	1.11	0.73	0.51	0.44
Office Furniture (including Fixtures) Manufacturing (M)	0.23	0.38	0.51	0.70	0.71	0.54	0.42
Non-Ferrous Metal (except Aluminum) Smelting and Refining (M)	0.55	0.94	0.68	0.53	0.53	0.43	0.41
Pump and Compressor Manufacturing (M)	0.09	0.17	0.16	0.47	0.17	0.19	0.38
Paper Mills (M)	0.08	0.48	0.51	0.56	0.45	0.28	0.36
Electric Power Generation (R)	0	0	0	0	0	0.01	0.35
SUB-TOTAL	87.92	88.73	89.18	87.24	87.47	90.52	89.94
OTHERS	12.08	11.27	10.82	12.76	12.53	9.48	10.06
TOTAL (ALL INDUSTRIES)	100	100	100	100	100	100	100

 $M = manufacturing \ sector \quad R = raw \ materials \ sector \quad W = wholesale \ sector \quad NAICS = North \ American \ Industry \ Classification \ System$

Figure 14 continued:

Saskatchewan - International Merchandise Exports by Top 25 Industries (5-digit NAICS codes), 1995-2001 (% of total)

	1995	1996	1997	1998	1999	2000	2001
Oil and Gas Extraction (R)	18.76	19.85	17.66	14.36	16.82	25.57	22.10
Other Non-Metallic Mineral Mining and Quarrying (R)	17.12	14.43	14.78	19.03	20.41	18.49	18.07
Wheat Farming (R)	26.06	25.76	28.41	22.38	18.82	15.36	17.42
Oilseed (except Soybean) Farming (R)	8.80	6.58	7.41	10.11	7.17	4.86	6.26
Dry Pea and Bean Farming (R)	3.23	3.34	2.88	4.01	4.66	4.30	4.12
Other Grain Farming (R)	4.17	5.99	4.83	3.00	2.74	2.75	3.28
Other Basic Inorganic Chemical Manufacturing (M)	2.38	2.00	2.08	1.35	1.72	1.59	2.72
Pulp Mills (M)	3.33	1.94	2.31	2.53	2.76	3.04	1.99
Paper Mills (M)	0.74	0.61	1.06	1.52	1.38	1.44	1.64
Beef Cattle Ranching and Farming, including Feedlots (R)	1.77	2.20	1.90	1.65	1.32	0.82	1.64
Starch and Vegetable Fat and Oil Manufacturing (M)	0.26	1.59	1.40	1.85	2.14	2.51	1.52
Glass and Glass Product Manufacturing (M)	0.66	1.33	1.05	2.32	2.91	4.09	1.38
Animal Slaughtering and Processing (M)	1.06	1.25	1.27	1.26	1.32	1.15	1.32
Agricultural Implement Manufacturing (M)	1.18	1.55	1.45	1.15	1.02	0.85	1.24
Sawmills and Wood Preservation (M)	0.40	1.21	1.73	1.83	2.21	1.53	1.21
Petroleum Refineries (M)	0.57	0.83	0.98	0.66	0.72	0.91	1.17
Fertilizer Manufacturing (M)	1.04	1.04	0.95	1.21	1.60	0.72	1.02
Flour Milling and Malt Manufacturing (M)	0.58	1.07	1.18	1.21	0.96	0.75	0.85
Pesticide and Other Agricultural Chemical Manufacturing (M)	0.70	0.68	0.63	0.78	0.50	0.59	0.77
Iron and Steel Pipes/Tubes Manufacturing from Purchased Steel (M)	0.13	0.06	0.08	0.16	0.27	0.63	0.75
Communication and Energy Wire and Cable Manufacturing (M)	0.06	0.01	0.01	0.01	0.01	0.01	0.64
Alumina and Aluminum Production and Processing (M)	0.09	0.10	0.12	0.25	0.31	0.33	0.51
Iron and Steel Mills and Ferro-Alloy Manufacturing (M)	1.14	0.87	0.63	1.02	0.58	0.54	0.49
Stationery Product Manufacturing (M)	0.30	0.23	0.33	0.30	0.43	0.56	0.45
Animal Food Manufacturing (M)	0.35	0.53	0.43	0.27	0.27	0.29	0.41
SUB-TOTAL	94.91	95.06	95.57	94.24	93.06	93.67	92.97
OTHERS	5.09	4.94	4.43	5.76	6.94	6.33	7.03
TOTAL (ALL INDUSTRIES)	100	100	100	100	100	100	100

Manitoba - International Merchandise Exports by Top 25 Industries (5-digit NAICS codes), 1995-2001 (% of total)

	1995	1996	1997	1998	1999	2000	2001
Non-Ferrous Metal (except Aluminum) Smelting and Refining (M)	5.85	4.41	6.35	7.61	6.47	6.21	7.81
Oil and Gas Extraction (R)	6.42	7.80	5.94	3.82	6.19	6.08	6.95
Wheat Farming (R)	8.88	10.56	10.51	5.60	5.63	5.32	5.69
Animal Slaughtering and Processing (M)	1.57	1.36	2.21	2.56	3.13	4.23	5.64
Electric Power Generation (R)	4.87	4.49	4.20	4.38	4.21	4.52	5.64
Motor Vehicle Body and Trailer Manufacturing (M)	3.13	2.89	2.60	2.87	3.82	4.27	4.82
Aerospace Product and Parts Manufacturing (M)	3.06	3.74	4.30	6.19	6.83	4.37	4.62
Oilseed (except Soybean) Farming (R)	8.39	6.11	6.17	7.57	5.58	4.04	4.22
Beef Cattle Ranching and Farming, including Feedlots (R)	2.52	2.94	3.01	2.93	2.17	1.92	2.72
Hog and Pig Farming (R)	1.18	2.44	2.22	1.91	2.03	2.12	2.61
Household and Institutional Furniture Manufacturing (M)	1.55	1.81	1.97	1.80	1.97	1.90	2.19
Paper Mills (M)	4.14	3.21	2.77	2.40	2.36	2.18	2.13
Agricultural Implement Manufacturing (M)	5.87	5.14	5.94	4.26	2.39	2.48	1.70
Dry Pea and Bean Farming (R)	1.46	1.39	1.52	1.15	1.43	1.20	1.63
Other Grain Farming (R)	1.92	2.77	2.93	1.47	1.42	1.37	1.63
Pharmaceutical and Medicine Manufacturing (M)	0.17	0.53	0.39	0.65	1.73	1.33	1.57
Frozen Food Manufacturing (M)	0.19	0.57	1.19	1.73	1.76	1.30	1.49
Wood Kitchen Cabinet and Counter Top Manufacturing (M)	0.50	0.68	0.70	0.82	1.03	1.14	1.38
Printing (M)	0.61	0.56	0.65	0.74	0.86	0.90	1.29
Starch and Vegetable Fat and Oil Manufacturing (M)	2.67	4.49	3.78	6.77	3.51	1.62	1.27
Petroleum Refineries (M)	0.97	1.06	1.16	0.80	1.07	2.08	1.25
Unsupported Plastic Film, Sheet and Bag Manufacturing (M)	0.83	0.74	0.74	0.81	0.98	0.98	1.22
Material Handling Equipment Manufacturing (M)	0.70	0.67	0.74	0.93	0.99	0.94	1.10
Sawmills and Wood Preservation (M)	1.85	1.03	1.06	1.14	1.55	1.48	1.10
Fertilizer Manufacturing (M)	0.62	0.64	0.41	0.46	0.82	0.70	1.03
SUB-TOTAL SUB-TOTAL	69.90	72.05	73.46	71.39	69.91	64.69	72.72
OTHERS	30.10	27.95	26.54	28.61	30.09	35.31	27.28
TOTAL (ALL INDUSTRIES)	100	100	100	100	100	100	100

 $M = manufacturing \ sector \quad R = raw \ materials \ sector \quad NAICS = North \ American \ Industry \ Classification \ System$

Figure 14 continued:

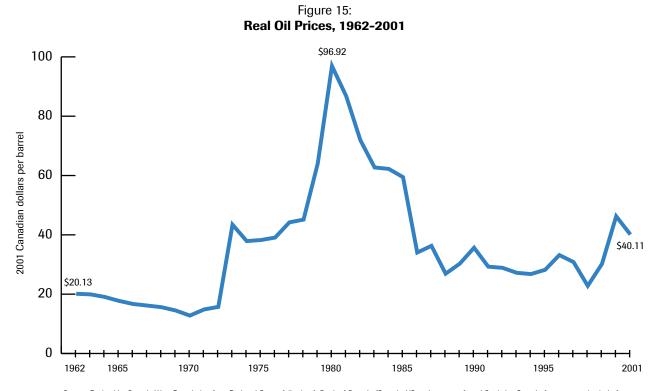
Ontario - International Merchandise Exports by Top 25 Industries (5-digit NAICS codes), 1995-2001 (% of total)

	1995	1996	1997	1998	1999	2000	2001
Automobile and Light-Duty Motor Vehicle Manufacturing (M)	29.72	28.52	28.13	27.43	30.81	29.16	28.78
Computer and Peripheral Equipment Manufacturing (M)	5.32	4.04	3.55	3.57	2.91	2.97	2.58
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing (M)	1.74	2.30	2.37	2.58	2.76	2.62	2.41
Aerospace Product and Parts Manufacturing (M)	1.09	1.16	1.26	1.35	1.28	1.47	1.90
Other Plastic Product Manufacturing (M)	1.39	1.55	1.67	1.65	1.63	1.84	1.89
Engine, Turbine and Power Transmission Equipment Manufacturing (M)	1.12	1.27	1.10	1.30	1.36	1.68	1.86
Paper Mills (M)	2.55	2.15	1.82	1.66	1.59	1.69	1.82
Resin and Synthetic Rubber Manufacturing (M)	1.37	1.42	1.91	1.67	1.60	1.83	1.78
Motor Vehicle Metal Stamping (M)	1.73	1.70	1.67	1.50	1.51	1.57	1.56
Motor Vehicle Transmission and Power Train Parts Manufacturing (M)	1.27	0.98	1.24	1.35	1.62	1.55	1.52
Other Motor Vehicle Parts Manufacturing (M)	1.86	1.73	1.63	1.49	1.45	1.44	1.46
Office Furniture (including Fixtures) Manufacturing (M)	1.20	1.31	1.49	1.57	1.44	1.50	1.33
Non-Ferrous Metal (except Aluminum) Smelting and Refining (M)	2.23	2.12	1.65	1.36	1.09	1.37	1.29
Heavy-Duty Truck Manufacturing (M)	1.83	1.74	1.90	2.17	2.37	1.52	1.20
Telephone Apparatus Manufacturing (M)	1.15	1.19	1.19	1.03	1.06	1.13	1.00
Commercial and Service Industry Machinery Manufacturing (M)	0.52	0.64	0.73	0.80	0.83	1.19	0.98
Gold and Silver Ore Mining (R)	1.94	2.19	1.95	1.47	1.03	1.01	0.98
Electrical Equipment Manufacturing (M)	0.93	0.94	0.95	0.91	0.86	0.90	0.97
Iron and Steel Mills and Ferro-Alloy Manufacturing (M)	1.62	1.56	1.32	1.24	1.01	1.06	0.94
Petroleum Refineries (M)	0.37	0.51	0.50	0.53	0.57	0.74	0.93
Metalworking Machinery Manufacturing (M)	1.05	1.05	1.13	1.09	0.97	0.92	0.86
Navigational, Measuring, Medical and Control Instruments Manufacturing (M)	0.95	0.95	0.90	0.83	0.76	0.77	0.80
Material Handling Equipment Manufacturing (M)	0.61	0.63	0.70	0.80	0.80	0.83	0.72
Semiconductor and Other Electronic Component Manufacturing (M)	0.84	0.89	0.92	0.68	0.68	0.90	0.70
Pharmaceutical and Medicine Manufacturing (M)	0.34	0.38	0.56	0.53	0.47	0.50	0.67
SUB-TOTAL	64.74	62.93	62.22	60.58	62.44	62.15	60.92
OTHERS	35.26	37.07	37.78	39.42	37.56	37.85	39.08
TOTAL (ALL INDUSTRIES)	100	100	100	100	100	100	100

Canada - International Merchandise Exports by Top 25 Industries (5-digit NAICS codes), 1995-2001 (% of total)

	1995	1996	1997	1998	1999	2000	2001
Automobile and Light-Duty Motor Vehicle Manufacturing (M)	16.34	15.30	15.28	15.63	17.66	15.24	14.86
Oil and Gas Extraction (R)	6.03	6.85	6.84	5.64	6.01	9.73	10.39
Aerospace Product and Parts Manufacturing (M)	1.86	2.14	2.08	2.59	2.55	2.68	3.60
Paper Mills (M)	5.02	4.43	3.87	3.81	3.45	3.31	3.46
Sawmills and Wood Preservation (M)	4.40	4.77	4.60	3.89	3.94	3.13	3.08
Petroleum Refineries (M)	1.79	2.27	2.01	1.25	1.29	1.97	2.31
Pulp Mills (M)	4.17	2.51	2.32	2.11	2.11	2.39	1.79
Alumina and Aluminum Production and Processing (M)	2.30	2.01	2.09	1.93	1.72	1.65	1.76
Computer and Peripheral Equipment Manufacturing (M)	2.96	2.43	2.22	2.22	1.89	1.88	1.58
Engine, Turbine and Power Transmission Equipment Manufacturing (M)	0.91	0.99	0.91	1.10	1.09	1.17	1.36
Resin and Synthetic Rubber Manufacturing (M)	1.32	1.26	1.39	1.25	1.23	1.29	1.36
Telephone Apparatus Manufacturing (M)	1.08	1.26	1.34	1.38	1.82	3.11	1.34
Animal Slaughtering and Processing (M)	0.85	0.93	1.05	0.98	1.03	1.06	1.31
Non-Ferrous Metal (except Aluminum) Smelting and Refining (M)	2.05	1.96	1.75	1.58	1.33	1.35	1.30
Other Plastic Product Manufacturing (M)	0.88	0.99	1.08	1.14	1.19	1.21	1.24
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing (M)	0.90	1.21	1.25	1.42	1.55	1.34	1.24
Semiconductor and Other Electronic Component Manufacturing (M)	1.61	1.83	1.96	1.70	1.44	1.57	1.20
Veneer, Plywood and Engineered Wood Product Manufacturing (M)	0.80	0.82	0.90	1.16	1.38	1.09	1.07
Electric Power Generation (R)	0.45	0.44	0.46	0.50	0.54	0.98	1.05
Wheat Farming (R)	1.55	1.69	1.80	1.21	0.96	0.90	0.97
Other Non-Metallic Mineral Mining and Quarrying (R)	0.95	0.83	0.83	0.86	0.94	0.91	0.90
Heavy-Duty Truck Manufacturing (M)	1.27	1.16	1.26	1.54	1.71	1.11	0.90
Office Furniture (including Fixtures) Manufacturing (M)	0.71	0.81	0.93	1.06	1.01	0.97	0.88
Motor Vehicle Metal Stamping (M)	0.91	0.91	0.90	0.85	0.88	0.83	0.83
Other Motor Vehicle Parts Manufacturing (M)	1.00	0.95	0.90	0.87	0.87	0.79	0.80
SUB-TOTAL	62.09	60.76	60.03	57.70	59.58	61.68	60.55
OTHERS	37.91	39.24	39.97	42.30	40.42	38.32	39.45
TOTAL (ALL INDUSTRIES)	100	100	100	100	100	100	100

 $M = manufacturing \ sector \quad R = raw \ materials \ sector \quad NAICS = North \ American \ Industry \ Classification \ System$



Source: Derived by Canada West Foundation from Rudyard Group (oil prices), Bank of Canada (Canada-US exchange rate), and Statistics Canada (consumer price index).

Conversion method: The annual price per barrel of West Texas Intermediate crude oil in US dollars was converted into current Canadian dollars using the annual Canada-US exchange rate and then converted into real 2001 dollars using the consumer price index.

international merchandise exports are generated by the natural resource sector). About 45% of the West's international merchandise exports are value-added products (compared to about 87% for Ontario) and many of these are second-stage natural resource and agricultural products such as pulp and paper, lumber, refined petroleum, smelted metal, and food products (beef cuts, flour, canola oil, etc.).

Agricultural and natural resource exports generate significant wealth and employ large numbers of western Canadians. Nonetheless, the West's dependency on exports of raw and semi-processed materials brings with it a number of key challenges.

First, many of the region's exports are non-renewable resources and, therefore, the marginal cost of extracting them is likely to increase as they are depleted.

Second, renewable resources such as forests and agricultural land must be harvested in ways that ensure long-term sustainability.

Third, because the prices of raw and semi-produced commodities are both unstable and beyond the control of western producers who are price-takers rather than price-makers, the regional economy is at the mercy of volatile price (and, in turn, profit) fluctuations that generate a boom and bust economic cycle. This inhibits long-term planning and causes substantial hardships for westerners employed by the natural resource and agricultural sectors.

The trajectory of crude oil prices depicted in Figure 15 provides an example of the dramatic price changes that characterize the raw materials sector. In today's dollars, a barrel of West Texas Intermediate grade crude oil was selling

for almost 100 Canadian dollars in 1980 compared to about 40 in 2001. The graph also shows the sharp drop in prices in 1998 and the rapid upswing in 2000 that is responsible for the dramatic changes to the relative size of Alberta's exports noted at several points in this report.

8. POLICY RECOMMENDATIONS

The primary goal of this report has been to describe the changing export base of the western Canadian economy. However, it would be remiss to conclude this description of the export landscape without briefly mentioning some of the policy implications and recommendations that flow from this analysis.

Given the increased importance of international trade to the western Canadian economy, greater dependence on the United States market, and the unique features of the West's export sector (particularly its continued reliance on raw and semi-processed natural resource and agricultural goods), a number of public policy recommendations come to the fore.

It is important to stress that, although directed at government institutions, successful implementation of these recommendations requires effort on the part of western Canadian businesses and individuals. Westerners and their governments must be willing to make hard choices, take risks, and engage in long-term planning if we are to remain successful in a global economy marked by intense competition and rapid change.

Maintain and Improve the Freight Transportation System

Without transportation, merchandise trade grinds to a halt. Given the importance of merchandise trade to the western Canadian economy, it follows that the transportation system that makes this trade possible should be a high priority. Despite this, public and political support for investing in the freight transportation system is weak. Part of this is optics (financing the expansion of a container facility does not seem right when there are waiting lists for surgical procedures) and part of it is a lack of understanding of the economic importance of transportation.

An efficient transportation system that is able to meet current and future demand will generate economic dividends that will, in turn, help maintain the tax base that funds programs such as health and education. Failure to ensure that the transportation system is up to the task of delivering western Canadian goods to market quickly and at prices that do not undermine the profitability of our export industries will significantly reduce the West's ability to maintain its way of life.

If foreign competitors have lower transportation costs, this places western Canadian suppliers at a significant disadvantage. In addition, high transportation costs hamstring productivity growth as less capital is available for investment.

For these reasons, it is essential that steps be taken to ensure that the freight transportation system receives the attention it deserves and the funding it needs to keep our exports flowing smoothly.

Continue the Quest for Economic Diversification

Despite significant increases in the amount of value-added manufacturing taking place in western Canada, the West remains highly dependent on raw and semi-processed natural resource and agricultural exports. The natural resource and agricultural sectors are the foundation of our

current prosperity. This should not, however, blind us to the value of continuing to find ways to supplement these sectors and expand the West's role as a manufacturing centre, service provider, and active participant in the knowledge economy. Diversification continues to hold the promise of lucrative and challenging jobs, investment, and population growth.

Increase the West's Stock of Human Capital

One way that public policy can assist the business sector as it continues to diversify is to encourage the development of human capital in the West. Skilled workers are in demand around the world and the degree to which the West can develop, attract, and retain these workers is critical to its ability both to diversify and stay competitive in the global economy. The region's post-secondary education system and training programs are obvious components of the human capital formation process.

Facilitating the engagement of Aboriginal people in the economy and attracting immigrants to the West are two additional areas in which public policy and the business sector can combine efforts to indirectly encourage economic diversification. Tapping the growing population of Aboriginal youth and attracting skilled immigrants to all parts of the West (and fully recognizing their skills after they arrive) will greatly expand the human capital pool available for economic growth in the West.

Increase Regional Economic and Policy Coordination

Although there is value in a healthy level of competition among the western provinces, the West is better off in many areas acting as a unit of over nine million people than as four separate economies. Integration of production, the removal of internal trade barriers, and cooperation and coordination in the areas of transportation, human capital development (immigration, post-secondary education, training), and economic diversification are all possible ways that the West can reduce duplication, increase efficiency, and achieve economies of scale.

In some cases, a national approach makes sense, but more often than not the complexities of national action combined with differences among the regions render regional solutions more practical. As the challenges of regional coordination are addressed and new ideas are tested, opportunities will be created to expand coordination to the national level or replicate success stories in other regions of the country. The task at hand is two-fold: 1) find projects that can be used to test the value and mechanics of regional coordination; and 2) overcome resistance to increased coordination rooted in policy structures that are, by definition, provincial and local.

Maintain and Improve Trade Relations With the United States

The decline in exports to the US in 2001 (Canada's exports to the US in 2001 were \$8.5 billion lower than in 2000) as the US economy cooled demonstrates how tightly the Canadian economy is tied to the US economy. With sales to the US accounting for between 59% and 89% of exports from the four western provinces in 2001, we cannot afford to let trade and business relations with the US slip. Selling to the US market is our economic bread and butter.

The signing and implementation of the FTA and the NAFTA have done much to facilitate free trade between Canada and the US. But, as the recent dispute over softwood lumber demonstrates, significant problems remain. Ensuring access to the US market is an ongoing challenge that requires

vigilance and creativity on the part of our political leadership, the civil service, and the myriad businesses involved in Canada-US trade.

The West's dependence on the US market is similar to its dependence on natural resources and agriculture – both are advantages but also sources of potential problems. As economic diversification moves forward, so too should the quest for deeper penetration into markets other than the United States. Expanding into other markets brings its own set of potential problems and should not come at the expense of trade with the United States. The goal, rather, is to expand our trade with the world while maintaining our relationship with the United States.

9. CONCLUSION

Western Canadians have always looked beyond the country's borders for opportunities for economic growth. In recent years, the main source of these opportunities has been the United States. Hence, western Canada has intensified its North-South trade links. East-West economic linkages remain important, but have not kept pace with the rise in trade with the US.

Although trade with the US has increased in importance and dwarfs trade with other parts of the world, western Canada has strong trade links with a wide range of countries and, although small when compared to our trade with the US, this trade is still important to the regional economy. As we continue to take advantage of our access to the American market, it is important to remember that significant opportunities exist in other parts of the world. Even though trade with Asia has not expanded to the degree many thought it would, the potential for growth remains.

Similar trends are evident across Canada. Nonetheless,

there are clear differences among the regions that demand regional analysis and regional approaches. The most striking difference is the West's continued reliance on the natural resource and agricultural sectors compared to Ontario's reliance on the integrated production of cars and trucks.

The increased importance of international exports signals a deep and far reaching shift in the economy of western Canada. International trade has been, and continues to be, a key source of economic growth. It stands at the centre of our long-term economic prosperity and our ability to maintain our way of life. We must, therefore, constantly seek new markets and improve our competitiveness; standing still in the global economy means being left behind.

APPENDIX: THE EFFECTS OF CURRENT AND REAL DATA ON ALBERTA'S EXPORT STATISTICS

Oil and natural gas are subject to dramatic price changes over short periods of time and account for over half of all international merchandise exports from Alberta. Because of this, fluctuations in the value of oil and natural gas cause significant swings in the current (nominal) value of the province's exports and GDP. Export and GDP data expressed in real terms exclude the effects of price changes. As a result, swings in the value of Alberta's exports and their economic ramifications are not readily apparent when the data are reported in real terms. Hence, it is particularly important in the case of Alberta to compare real data with nominal data.

For example, because real export data measure changes in volume rather than price, if 100 barrels of oil were sold in 1998 and 100 barrels of oil were sold in 2000, the value of the oil sold would be the same for both years. The only change that matters when the data are expressed in real terms is if the number of barrels sold is up or down (i.e., if the volume of exports has changed). The number of units sold is multiplied by the price per unit during a particular year (the base year). If oil sold for \$1 a barrel in the base year, and 100 barrels were sold in 1998 and 110 barrels were sold in 2000, the value of the oil would be recorded as \$100 for 1998 and \$110 for 2000. This yields a real change or volume change of \$10 or 10%.

In current or nominal terms, actual prices are used. If oil sold for \$1 a barrel in 1998 and \$1.25 a barrel in 2000, and 100 barrels were sold in 1998 and 110 barrels were sold in 2000, the value of the oil would be recorded as \$100 for 1998 and \$137.50 for 2000. This yields a current value or nominal change of \$37.50 or 37.5%. Even if the same number of barrels were sold (i.e., 100), the current value would have increased by \$25.

The above example illustrates the difference between volume changes expressed in real price terms and the combined effects of volume and price changes expressed in current or nominal price terms.

This difference can lead to distortions when examining Alberta's GDP and export levels. For example, in 2000 Alberta exported about \$45 billion to other countries in real terms (i.e., at 1997 prices – the current base year used by Statistics Canada). In current terms (i.e., at 2000 prices), this figure jumps to over \$60 billion due to significantly higher oil and natural gas prices in 2000 compared to the base year. As a result, Alberta's real GDP was *lower* than BC's in 2000 at \$120 billion compared to \$124 billion. When expressed in current price terms, Alberta's GDP was *higher* than BC's in 2000 at \$143 billion compared to \$128 billion. Looking at the data only in real terms would miss the massive influx of dollars into the Alberta economy (and public coffers in the form oil and natural gas taxes) in 2000.

Price fluctuations also affect Alberta's and, in turn, the West's share of national exports. In 1998 when oil and gas prices were low, Alberta's share of Canada's international merchandise exports was 9.8% and the West's share was 23.9%. These figures are significantly lower than those for 2001 (14.3% and 27.7% respectively) when oil and gas prices were relatively high. Similarly, Alberta's share of Canada's merchandise exports to the United States was only 9.4% in 1998 compared to 14.5% in 2001 (the West's share of Canada's merchandise exports to the United States was 20.0% in 1998 compared to 25.2% in 2001).

Data on exports by destination or by product are not readily available in real terms. Real data are only available for exports in total. Hence, this report uses nominal data when referring to exports to the US or exports of a specific good. In some cases, the value of exports to a specific country or the value of a specific export product have been converted into constant 2001 dollars using the Consumer Price Index (CPI) method. This differs from the real prices method discussed above. The CPI method involves inflating or deflating the value of previous year's exports by the annual change in consumer prices. In this way, the effects of inflation are controlled for and an approximation of the real change in value is arrived at.



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