

Information Bulletin

NUMBER 138 • FEBRUARY 2010

ALBERTA AND THE EU-27: PAST TRADE RELATIONS AND FUTURE OPPORTUNITIES

Nicholas Emter

Rolf Mirus

*Western Centre for Economic Research
School of Business, University of Alberta
Edmonton, Canada T6G 2R6
www.business.ualberta.ca/WCER*



Western Centre for
Economic Research

www.business.ualberta.ca/wcer
with support from: The George M. Cormie Endowment

Library and Archives Canada Cataloguing in Publication

Emter, Nicholas, 1986-

Alberta and the EU-27 : past trade relations and future opportunities / Nicholas Emter, Rolf Mirus.

(Information bulletin ; no. 138)

Includes bibliographical references.

Issued also in electronic format.

ISBN 978-1-55195-990-0

1. Alberta--Commerce--European Union countries. 2. European Union countries--Commerce--Alberta. 3. Canada--Foreign economic relations--European Union countries. 4. European Union countries--Foreign economic relations--Canada. I. Mirus, Rolf II. University of Alberta. Western Centre for Economic Research III. Title. IV. Series: Information bulletin (University of Alberta. Western Centre for Economic Research) ; no. 138

HF1480.19.A4E48 2010

337.712304

C2010-901599-1

Table of Contents

| | |
|--|----|
| Executive Summary | 1 |
| 1. Introduction | 2 |
| 2. The Canada-EU Bilateral Relationship | 2 |
| 2. Alberta's and Western Canada's Goods Exports to the EU | 5 |
| 3. What a Free Trade Agreement Could Mean for Alberta..... | 10 |
| 4. Conclusion | 12 |
| Appendix 1: Top 20 Exports to EU, HS 2-digit (millions \$CAD)..... | 13 |
| Appendix 2: Trade Liberalization Analysis | 18 |

Executive Summary

- Europe is an important trading partner for Canada. In 2008 Europe was the second most important trading partner, ahead of China, and the source of 12.6% of Canada's imports and the destination of 7.5% of Canada's exports. Europe is also a source and destination of Canadian Foreign Direct Investment and a partner in technology transfer.
- Research commissioned by the federal government and the European Commission suggests that a free trade agreement with the European Union (EU) could increase bilateral trade in goods and services by \$CAD 25.7 billion annually.
- Alberta's exports of goods to the EU are significant, \$CAD1.3 billion in 2008, although they are somewhat volatile and their growth has lagged Canada's overall export growth to the EU.
- It is widely agreed that export market diversification is desirable for Alberta and that improved market access to the large EU market would be beneficial.
- In 2008 the key exports from Alberta to the EU were Nickel and Nickel Powders, Wheat, Gas Turbines, Cobalt, and Wood Pulp. A number of manufactured products (Machinery Parts, Navigational Instruments) also displayed high growth rates, albeit from a small base.
- Some products that Alberta successfully exports to other destinations face tariffs in the EU which place them at a disadvantage to suppliers that have preferential access to the EU.
- Estimates for some of these Alberta export products, namely Processed Petro-Chemicals that face 2.0-6.5% tariffs in the EU, suggest that additional exports of \$CAD 200,000-\$CAD 300,000 per year (2008 prices) are possible as a result of tariff elimination.
- Additional opportunities for Alberta's exports of manufactured products and commercial services would result from freer trade. They are not included in the above estimates.
- Other benefits for Alberta from a trade agreement with the EU, such as improved technology transfer and better investment relations, are difficult to estimate. Freer internal trade, which would be a consequence of freer trade with the EU, would also have a productivity-boosting effect for Alberta.

1. Introduction

Canada and the EU-27 are negotiating a comprehensive economic partnership agreement against the backdrop of the stalled multilateral negotiations under the auspices of the World Trade Organization (WTO). The new agreement is expected to stimulate trade, investment, and technology transfer between the two partners. This report provides a review of the last 15 years of Alberta's experience in exporting goods to the EU-27, with the goal of gaining insights into how freer trade could affect future exports to the region.

First, we summarize the state of bilateral economic relations between the prospective partners, relying in part on a study jointly sponsored by the EU and the Government of Canada. The second part focuses on the exports to the EU from Alberta and from the four Western provinces as a group. In particular, the key export products are shown and how these exports evolved relative to those to other markets. Finally, we discuss tariff- and non-tariff barriers facing Alberta exporters and how an agreement could improve trading with the EU.

2. The Canada-EU Bilateral Relationship

Historical ties between Canada and France and Canada and the UK are substantial and have been nurtured by European immigration. As a result, there have been a number of cooperation agreements between the countries which have contributed to a mutual awareness of the complexity of our respective policy-making and institutional arrangements.

In 2008, Canada was the EU's 11th most important export market (2.0% of total exports) and the 14th largest source of imports (1.5% of total imports). Conversely, the EU was the number two trading partner for Canada, ahead of China. 12.6% of Canada's imports derived from the EU; 7.5% of Canada's exports were destined for the EU; and 10.0% of Canada's total trade was with the EU.

The trade-weighted average import duty levied by the EU on imports from Canada was 2.7% in 2007. Conversely, Canada imposed on average a tariff of 3.5% on imports from the EU. Quantitative restrictions and other non-tariff barriers to trade, e.g. differences in regulations, technical and sanitary standards and the like, represent less obvious barriers to trade. Similarly, in the respective services sectors, there exist discriminatory practices that inhibit trade, and ownership requirements that restrain investment. The existing impediments to trade in goods and services led the consultant to the conclusion that there is the potential for an annual increase in bilateral trade of \$37.5 billion by 2014, split between extra goods trade of \$27.2 billion and extra services trade of \$10.3 billion

(1 Euro= C\$ 1.46).¹ For Canada, additional annual exports of goods were estimated to amount to \$9.2 billion (24.3% increase) and extra exports of services to \$3.2 billion (14.2% increase) as a result of the trade liberalization.

The consultant further estimated that, for Canada, the sectors standing to benefit the most from trade expansion with the EU would be processed foods, primary agriculture, metals, transportation services, transport equipment, and machinery and equipment. Smaller benefits would accrue to chemical products, business services, motor vehicles and parts, as well as electronic equipment. As the consultant identified a 28% increase in trade in services resulting from the stimulus that an agreement with the EU would bring, a brief summary of Canada's services trade with the EU follows. The objective is to gain some insight into this aspect of Canada's relations with the EU, though provincial data are not available for service exports (and imports).

Canada's trade in goods and commercial services is summarized in Table 1 (below). Canadian exports of commercial services to the EU-27 have grown faster than exports of goods (292% vs. 210%) during the 15 years reviewed here. Although the proportion of Canadian export receipts derived from the EU has, on balance, grown only slightly (to around 15% of total such export earnings in 2008), the data suggest that the EU has been a growing market for Canadian service exports. Commercial services include communications services, management services, research and development (R&D) services, insurance, construction, architectural/engineering/technical services, and royalty and licensing fees. We note in passing that Canada had a surplus in R&D services trade but a deficit in royalties and licensing fees vis-à-vis the EU in 2007.

¹ Assessing the Costs and Benefits of a Closer EU-Canada Economic Partnership", Joint Study by the European Commission and the Government of Canada, 2008, cf. Key Findings, pp. 163-179)

Table 1: Canada's EU-Trade in Goods and Commercial Services (millions \$CAN)

| Year | Goods Exports | Commercial Service Exports | Goods Imports | Commercial Service Imports |
|-------------------------|----------------------|-----------------------------------|----------------------|-----------------------------------|
| 1993 | 11,720.0 | 1,528.0 | 16,502.9 | 2,071.0 |
| 1994 | 12,860.6 | 1,854.0 | 19,997.7 | 2,482.0 |
| 1995 | 17,054.6 | 2,174.0 | 23,146.4 | 2,456.0 |
| 1996 | 16,254.9 | 2,536.0 | 23,290.3 | 2,507.0 |
| 1997 | 15,948.4 | 2,828.0 | 27,613.7 | 3,110.0 |
| 1998 | 16,825.8 | 3,691.0 | 28,941.1 | 3,639.0 |
| 1999 | 17,019.0 | 3,866.0 | 32,580.5 | 3,537.0 |
| 2000 | 19,622.6 | 4,290.0 | 37,948.0 | 3,300.0 |
| 2001 | 18,782.4 | 5,086.0 | 39,491.2 | 4,536.0 |
| 2002 | 17,920.4 | 5,246.0 | 40,087.4 | 4,331.0 |
| 2003 | 20,069.2 | 5,092.0 | 40,331.7 | 4,658.0 |
| 2004 | 23,014.5 | 5,069.0 | 42,286.8 | 4,671.0 |
| 2005 | 24,980.3 | 6,057.0 | 45,944.2 | 4,123.0 |
| 2006 | 29,200.7 | 6,827.0 | 48,957.9 | 4,667.0 |
| 2007 | 34,863.0 | 5,076.0 | 49,327.2 | 5,253.0 |
| 2008 | 36,368.5 | 5,993.0 | 54,079.8 | 5,320.0 |
| Growth 1993-2008 | 210% | 292% | 228% | 157% |

2. Alberta's and Western Canada's Goods Exports to the EU²

While exports of services hold considerable promise for growth from a free trade agreement with the EU, there are no data on service exports at the provincial level. On the other hand, there are data by province of origin for goods exports. In this section we present an overview of the products Alberta and the other Western provinces export to the EU. The focus will be on the top 10 products exported, and how these have developed over the last 15 years. Data on the top 20 export products are found in Appendix 1.

Table 2 (below) shows total exports of the Western provinces. While Canada's exports have tripled between 1993 and 2008 (+210%), the patterns of growth vary considerably for the exports of the Western provinces. Saskatchewan achieved exports in 2008 that are five-fold its 1993 level while Manitoba managed growth of only 46%. British Columbia's exports grew by 70% and Alberta's by 162%. Thus, Western Canada's as a whole underperformed Canada's overall export performance in the EU, and the export revenues of British Columbia and Saskatchewan are considerably ahead of Alberta's and Manitoba's. In 2008 Western Canada accounted for slightly less than 18% of Canada's goods exports to the EU, amounting to \$6.4 billion in current dollar terms, whereas in 1993, 24% of Canadian exports to the EU, worth \$2.8B in current dollar terms, came from the Western Provinces.

² Henceforth, all figures are provided by Trade Data Online (TDO) unless otherwise noted.

Table 2: Western Canada's Exports to the EU (millions \$CAN)

| Year | Alberta | British Columbia | Saskatchewan | Manitoba | Western Canada |
|-------------------------|-------------|------------------|--------------|------------|----------------|
| 1993 | 512.5 | 1,589.0 | 365.5 | 289.5 | 2,756.6 |
| 1994 | 796.8 | 2,009.8 | 626.6 | 356.6 | 3,789.7 |
| 1995 | 1,083.9 | 2,929.4 | 907.6 | 407.2 | 5,328.1 |
| 1996 | 1,038.8 | 2,038.9 | 598.9 | 374.2 | 4,050.8 |
| 1997 | 999.3 | 2,143.7 | 704.6 | 406.8 | 4,254.3 |
| 1998 | 1,079.1 | 2,065.5 | 627.6 | 433.7 | 4,205.9 |
| 1999 | 972.8 | 1,983.1 | 588.1 | 309.6 | 3,853.5 |
| 2000 | 1,112.9 | 2,670.2 | 618.0 | 366.9 | 4,768.0 |
| 2001 | 977.1 | 2,197.0 | 744.7 | 379.3 | 4,298.2 |
| 2002 | 930.8 | 1,862.6 | 723.2 | 361.9 | 3,878.6 |
| 2003 | 1,063.0 | 1,972.9 | 830.6 | 430.6 | 4,297.2 |
| 2004 | 1,311.9 | 2,313.8 | 758.7 | 381.3 | 4,765.7 |
| 2005 | 1,368.0 | 2,583.4 | 882.3 | 395.2 | 5,228.9 |
| 2006 | 1,324.8 | 2,422.2 | 1,211.7 | 349.8 | 5,308.6 |
| 2007 | 1,800.6 | 2,443.2 | 2,022.8 | 493.2 | 6,759.9 |
| 2008 | 1,343.8 | 2,702.7 | 1,940.0 | 422.6 | 6,409.2 |
| Growth 1993-2008 | 162% | 70% | 431% | 46% | 133% |

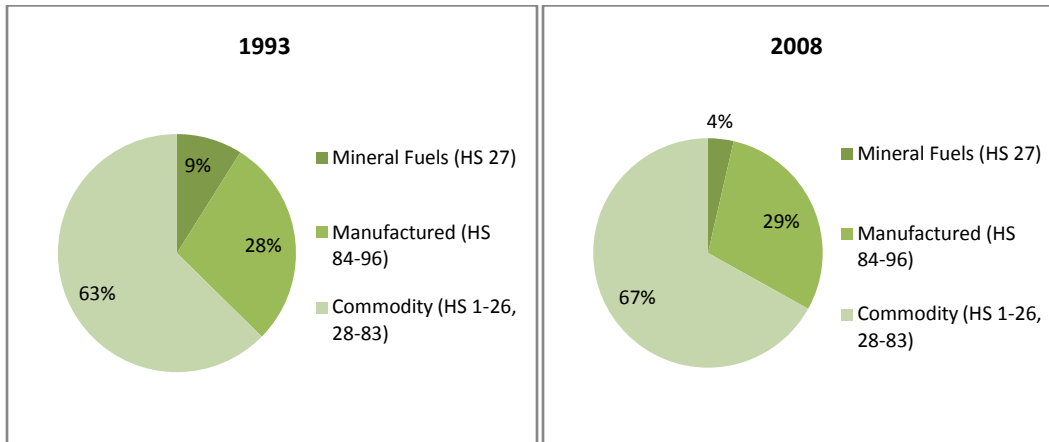
Table 3 (below) shows that since 1993 of the four Western provinces only Saskatchewan saw an increase in the share of its goods exports to the EU, with the result that overall Western Canada has become a less significant source of goods exports to the EU. While Canada as a whole increased the share of total such exports to the EU, this does not hold for the total of the four Western provinces. Why is the provincial export experience vis-à-vis the EU so different and diverse?

Table 3: Share of Total Exports Destined for the EU (%)

| Year | Alberta | British Columbia | Saskatchewan | Manitoba | Western Canada | Canada |
|----------------------------------|----------------|-------------------------|---------------------|-----------------|-----------------------|---------------|
| 1993 | 2.5% | 8.0% | 5.9% | 7.5% | 5.5% | 6.3% |
| 1994 | 3.4% | 8.4% | 8.2% | 7.5% | 6.3% | 5.7% |
| 1995 | 3.9% | 10.3% | 10.1% | 7.1% | 7.5% | 6.5% |
| 1996 | 3.2% | 7.7% | 6.4% | 5.9% | 5.4% | 5.9% |
| 1997 | 3.0% | 7.8% | 6.5% | 5.5% | 5.4% | 5.4% |
| 1998 | 3.5% | 7.7% | 6.3% | 5.3% | 5.5% | 5.3% |
| 1999 | 2.8% | 6.6% | 6.0% | 3.8% | 4.6% | 4.8% |
| 2000 | 2.0% | 7.5% | 4.9% | 3.8% | 4.2% | 4.7% |
| 2001 | 1.7% | 6.7% | 6.3% | 3.9% | 3.8% | 4.6% |
| 2002 | 1.9% | 6.2% | 6.4% | 3.8% | 3.9% | 4.5% |
| 2003 | 1.8% | 6.7% | 8.0% | 4.6% | 4.0% | 5.3% |
| 2004 | 2.0% | 7.2% | 5.6% | 4.0% | 4.0% | 5.6% |
| 2005 | 1.8% | 7.3% | 5.9% | 4.2% | 3.8% | 5.7% |
| 2006 | 1.7% | 6.9% | 7.4% | 3.4% | 3.8% | 6.6% |
| 2007 | 2.2% | 7.5% | 10.2% | 4.0% | 4.6% | 7.7% |
| 2008 | 1.2% | 8.0% | 6.5% | 3.3% | 3.4% | 7.5% |
| Change in Share 1993-2008 | -52% | 0% | 9% | -56% | -38% | 20% |

The key reason for the relative decline of the EU as an export destination for Alberta is found in Alberta's strong growth of energy exports to the US. Higher prices, coupled with the existing and growing infrastructure of pipelines, resulted in export levels for energy to the US that depressed the EU's market share of Alberta's exports and, therefore, hide the growth of 162% (Table 2) in value since 1993. Alberta is essentially an exporter of commodity products and to a lesser extent of manufactured products to the EU, with energy products playing a minor role. Figure 1 (below) shows the composition of exports from Alberta to the EU in 1993 and 2008, revealing the growing importance of commodity-type and processed products found in chapters 1-26 and 28-83 of the Harmonized System (HS) that is commonly used for trade statistics.

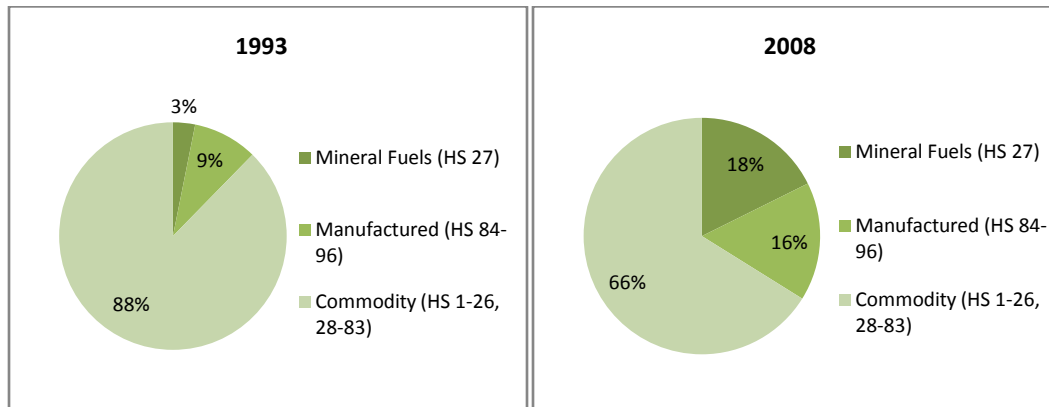
Figure 1: The Composition of Alberta's Exports to the EU*



*Export compositions are based on the top 25 exports from Alberta and Western Canada to the EU.

The composition of goods shipped to the EU shows the strength of commodity exports and a growing share, from a low base, for exports of manufactured products in HS-chapters 84-96 (Figure 2, below). The mineral fuel exports consist mainly of coal.

Figure 2: The Composition of Western Canada's Exports to the EU*



*Export compositions are based on the top 25 exports from Alberta and Western Canada to the EU.

The commodity-type and processed products that Alberta exports to the EU are predominately nickel and wheat. Some specialty products show strong export growth, e.g. Nickel Powders and Flakes, Pet Food, Specialty Compounds, and Polyethylene, as shown in Table 4 (below). Among exports of manufactured products the highest growth is found for gas turbines and navigational apparatus, with Specialty Instruments and Machinery also gaining strength, as shown in Table 5. There seem to be evolving clusters of specialty manufacturing products, albeit from a small base. For Alberta, the EU-27 accounted for only 1.2% of total goods exports in 2008. The following section will explore what a free trade agreement with the EU could mean for Alberta.

Table 4: Alberta's Top 10 Commodity/Processed Products Exported to the EU, 4-digit HS-level (millions \$CAN)

| 2008 Rank | HS | Description | 1993 | 1998 | 2003 | 2008 | %Change 1993-2008 |
|-----------|------|------------------------------|------|-------|-------|-------|-------------------|
| 1 | 7502 | Unwrought Nickel | 35.0 | 126.8 | 286.2 | 361.4 | 932% |
| 2 | 1001 | Wheat | 30.0 | 89.0 | 184.2 | 157.1 | 424% |
| 3 | 8105 | Cobalt and Products | 16.1 | 78.0 | 30.3 | 51.6 | 221% |
| 4 | 4705 | Semi-chemical Wood-pulp | 75.6 | 75.9 | 67.1 | 39.2 | -48% |
| 5 | 7504 | Nickel Powders and Flakes | 3.5 | 11.0 | 9.3 | 33.9 | 879% |
| 6 | 2803 | Carbon | 10.4 | 20.0 | 18.3 | 27.2 | 162% |
| 7 | 2309 | Pet Food | 0.0 | 0.2 | 6.6 | 21.9 | 11,8947% |
| 8 | 0205 | Meat of Horses | 20.9 | 32.0 | 22.2 | 21.3 | 2% |
| 9 | 2933 | Heterocyclic Compounds | 0.8 | 7.1 | 1.9 | 18.6 | 2,207% |
| 10 | 3824 | Prepared Binders for Foundry | 0.0 | 0.1 | 0.0 | 13.8 | N/A |

Table 5: Alberta's Top 10 Manufactured Products Exported to the EU, 4-digit HS-level (millions \$CAN)

| 2008 Rank | HS | Description | 1993 | 1998 | 2003 | 2008 | %Change 1993-2008 |
|-----------|------|--|------|------|------|------|-------------------|
| 1 | 8411 | Gas Turbines | 1.1 | 0.7 | 17.6 | 86.5 | 7,869% |
| 2 | 8431 | Machinery Parts | 13.5 | 19.8 | 12.8 | 27.4 | 103% |
| 3 | 9027 | Instruments for Chemical/Physical Analysis | 2.2 | 3.1 | 15.1 | 23.9 | 993% |
| 4 | 8481 | Taps, Cocks, and Valves | 5.3 | 12.8 | 8.0 | 23.6 | 348% |
| 5 | 8479 | Machines with Individual Functions | 2.8 | 10.5 | 9.4 | 22.3 | 691% |
| 6 | 8517 | Telephone Sets | 45.3 | 22.9 | 21.8 | 22.0 | -51% |
| 7 | 9015 | Surveying Instruments | 3.8 | 7.6 | 8.1 | 15.5 | 312% |
| 8 | 8526 | Radar and Navigational Apparatus | 0.1 | 1.3 | 3.0 | 11.4 | 17,466% |
| 9 | 8471 | Computers and Peripherals | 1.9 | 4.0 | 4.9 | 10.3 | 440% |
| 10 | 8802 | Helicopters, Airplanes, Spacecraft (parts) | 0.1 | 44.8 | 0.4 | 8.3 | 8633% |

3. What a Free Trade Agreement Could Mean for Alberta

While exports from Alberta to the EU have grown at a reasonable rate (162% over 15 years), in many cases trade is certainly not free. As mentioned earlier, the weighted average import duty on Canadian exports to the EU is only 2.7%. From product to product, however, tariffs vary greatly, and in some instances they may hinder trade volumes significantly.

In the Ricardian model of international trade, countries export those goods for which they possess a comparative production advantage. Proximity and preferential trade agreements, such as the NAFTA, also have some bearing. In the case of Alberta-EU trade, geography imposes shipping costs, and there does not (yet) exist preferential access.

When we consider global exports from the province and find a relatively small volume of products shipped to the EU, several factors may be at work. First, EU nations may produce the good themselves, in which case there may be no unexploited trade opportunities. Second, transportation costs may diminish or completely eliminate any benefits from trade. Third, the EU may obtain the good in question from countries with which they share a preferential trade agreement. And fourth, therefore, even a relatively small tariff could put Alberta goods at a competitive disadvantage in the EU-market. Such is possibly the case for some of Alberta's exports to the EU.

In 2008, Alberta exported \$990.3 million of Polyethylene (HS 390120) worldwide, of which only \$21,041 (0.02%) went to the EU. Yet the EU is a big importer of this product. Tariffs on this product in importing jurisdictions range from 0% to the bound maximum of 6.5% (2.25% for the Russian Federation), Canada faces an ad valorem tariff of 4.87% in the EU. Similarly, Alberta's total Urea (HS 310210) exports were valued at \$628.8 million, but only 0.24% (\$1.5 million) went to the EU. For this product, exports from Canada to the EU face the maximum bound tariff of 6.5%. Ethylene Glycol (HS 290531) exports to the EU were valued at a paltry \$16,883 in 2008, compared to over one billion dollars worldwide. The tariff imposed by the EU on Canadian exports of this product is again the maximum bound rate of 5%, whereas for most other countries it is only 2%. For Sulfur exports (HS 250300) the same holds true. Alberta's 2008 exports to the EU of \$63,758 constituted only 0.003% of the export total value of almost two billion dollars. While the EU's bound tariff rate on Sulfur is 1.7%, Canadian exports face only the applied rate of 0.85%. Shipments to the EU of Rape and Colza Seeds (HS 120510) were also a minute 0.03% of total exports of the kind in 2008. For this commodity, however, the applied tariff rate on Canadian exports is 0%. Here, a non-tariff barrier in the form of product standards, relating to the genetically modified nature of Canadian Rape and Colza Seeds, is the likely reason for such a low export share to the EU.

Removal of tariff and non-tariff barriers has the potential to significantly increase trade between Canada and the EU. Hopefully, either via multilateral negotiation under the auspices of the WTO or by means of bilateral talks between Canada and the EU, trade will be further liberalized with the reduction

or removal of these tariffs. Increased trading activity and economic welfare for both Alberta and the EU would likely result.

In fact, assuming a rather conservative range of price elasticities of demand from -2.0 to -3.0³ and using 2008 values, volumes, and the average of the \$CAD/Euro exchange rate that prevailed over the years 2007-2009 (\$1.54CAD/Euro), removal of the above tariffs could potentially increase Alberta exports to the EU by \$197,400 to \$296,000⁴. Expansion of Urea (HS310210) exports would, by far, constitute the bulk of this increase, which is modest relative to the overall value of Alberta exports to the EU (\$1.3B in 2008). However, if Alberta were to gain 25% (50%) of the EU import market for these commodities, exports from the province could potentially increase by \$938.9 million (\$1,879.3 million). While such penetration of the EU market is likely unattainable, this analysis shows the range of the export potential for these products and the impact existing tariffs may exert on trade.

Furthermore, just as exports of these products to the EU make up only a small proportion of Alberta's total exports, they constitute a very small proportion of the EU's total imports of the kind. For example, EU Polyethylene imports from Alberta are only 0.0015% of total imports. For Urea, Ethylene Glycol, and Sulfur the corresponding figures are 0.088%, 0.004%, and 0.035%, respectively. Obviously, there is ample room for Alberta to enhance its export profile to the EU for these goods. Indeed, if Alberta were to gain 25% of the EU's import market share for these four products alone, overall exports to the EU from Alberta would increase by approximately 70% over total exports in 2008. Here, increased market access for Urea and Polyethylene would contribute roughly 83% to the overall gain.

Without making conjectures about possible gains for Alberta's exporters of services (management, R&D, engineering), better access to the EU for the exports of a few products suggests a considerable expansion of output is possible for several products that are currently facing modest tariff barriers. Canola Oil is another product where exports could increase substantially if regulatory barriers were overcome but this is beyond the scope of this paper.

³ These values likely represent the upper and lower bounds of the import price elasticities of demand for these commodities, based on prior research. The estimated elasticity for imports of plastic, a proxy for polyurethane, is -2.30 to -2.38 for the U.S., whereas that for glycerin, a reasonable proxy for ethylene glycol, is -1.61 - 2.35. Similarly, cement, a rough proxy for sulfur, has an estimated elasticity of -1.71 to -4.41. Overall, averaging over 176 commodity imports, the price elasticities of demand are estimated to be between -2.23 and -2.74. Source: de Vries, A. B. (1950). "Price Elasticities of Demand for Individual Commodities Imported into the United States." *Staff Papers – International Monetary Fund* (1). pp 397-419.

Furthermore, the estimated import price elasticity of demand for urea is -2.0, according to: Vandebussche, H. (1995). "Is European Antidumping Protection Against Central Europe Too High?" Working Paper. University of Antwerp.

⁴ EU import statistics provided by the Market Access Database. Exchange rate data is courtesy of the European Central Bank Statistical Data Warehouse. See Appendix 2 for a more detailed analysis.

4. Conclusion

Our review and analysis of Alberta-EU exports has shown that there is potential for expanded trade, certainly in a few key export products that face low but likely prohibitive tariffs. The potential additional exports of Urea are a case in point. For Alberta's emerging manufacturing sector better access to the EU market would also be beneficial. In light of Canada's and Alberta's continuing productivity problems and well-documented heavy reliance on the US market, expansion of trade with Europe should also bring access to lower priced inputs, helping productivity growth.

It should also provide better access to commercial services that are integrated into international value chains. The benefit of better access to the huge market for commercial services in the EU will, of course, also accrue to Alberta's service providers. Another spur to Alberta's exports and economic growth should derive from improved cooperation in technology transfer that would be a key part of a comprehensive economic cooperation agreement with the EU-27.

Finally, another productivity-enhancing result of the agreement with the EU would derive from freer internal Canadian trade. If the provinces grant free access to European products and services, it will imply that interprovincial barriers will also be eliminated.

Appendix 1: Top 20 World Exports and EU Shares, HS 2-digit (millions \$CAN)

Western Canada

| HS | Description | 1993 | | 2008 | | Export Growth (%) 1993-2008 | Contribution to Total Export Growth (%) 1993-2008 | % EU Share | |
|-----------------------------|-----------------------------|-----------------|--------------|------------------|--------------|-----------------------------|---|------------|------------|
| | | Export Value | % of Total | Export Value | % of Total | | | 1993 | 2008 |
| 27 | Mineral Fuel, Oil, Etc. | 16,355.4 | 32.7 | 102,392.6 | 54.7 | 526.0 | 62.7 | 0.2 | 0.0 |
| 10 | Cereals | 3,380.3 | 6.8 | 8,392.5 | 4.5 | 148.3 | 3.7 | 5.6 | 0.1 |
| 84 | Machinery | 1,631.5 | 3.3 | 7,620.5 | 4.1 | 367.1 | 4.4 | 4.9 | 0.1 |
| 31 | Fertilizers | 1,385.7 | 2.8 | 7,104.2 | 3.8 | 412.7 | 4.2 | 0.9 | 0.0 |
| 44 | Wood | 8,185.6 | 16.4 | 6,050.5 | 3.2 | -26.1 | -1.6 | 5.1 | 0.1 |
| 12 | Misc. Grain, Seed, Fruit | 1,052.7 | 2.1 | 4,948.4 | 2.6 | 370.1 | 2.8 | 21.9 | 0.1 |
| 39 | Plastic | 664.5 | 1.3 | 4,563.9 | 2.4 | 586.8 | 2.8 | 0.5 | 0.0 |
| 47 | Woodpulp, Etc. | 2,913.3 | 5.8 | 4,556.2 | 2.4 | 56.4 | 1.2 | 29.3 | 0.1 |
| 02 | Meat | 609.9 | 1.2 | 2,834.9 | 1.5 | 364.8 | 1.6 | 3.6 | 0.0 |
| 28 | Inorganic Chemicals | 494.4 | 1.0 | 2,822.2 | 1.5 | 470.8 | 1.7 | 5.4 | 0.4 |
| 29 | Organic Chemicals | 725.3 | 1.5 | 2,587.4 | 1.4 | 256.7 | 1.4 | 0.7 | 0.0 |
| 48 | Paper, Paperboard | 1,903.8 | 3.8 | 2,248.1 | 1.2 | 18.1 | 0.3 | 6.9 | 0.0 |
| 25 | Salt, Sulfur, Earths, Stone | 277.0 | 0.6 | 2,148.0 | 1.1 | 675.5 | 1.4 | 2.1 | 0.0 |
| 07 | Vegetables | 280.1 | 0.6 | 2,074.0 | 1.1 | 640.5 | 1.3 | 48.2 | 0.1 |
| 85 | Electrical Machinery | 818.6 | 1.6 | 2,056.3 | 1.1 | 151.2 | 0.9 | 9.3 | 0.1 |
| 75 | Nickel and Products | 221.4 | 0.4 | 1,821.2 | 1.0 | 722.6 | 1.2 | 43.6 | 0.2 |
| 73 | Iron and Steel Products | 282.8 | 0.6 | 1,595.9 | 0.9 | 464.4 | 1.0 | 1.4 | 0.0 |
| 87 | Vehicles, not Railway | 758.9 | 1.5 | 1,389.0 | 0.7 | 83.0 | 0.5 | 1.5 | 0.0 |
| 90 | Precision Instruments | 314.4 | 0.6 | 1,157.1 | 0.6 | 268.1 | 0.6 | 16.9 | 0.1 |
| 03 | Fish and Seafood | 708.2 | 1.4 | 881.3 | 0.5 | 24.5 | 0.1 | 2.7 | 0.0 |
| Top 20 | | 42,963.5 | 85.9 | 169,244.2 | 90.4 | 293.9 | 92.1 | 5.6 | 3.3 |
| Total Western Canada | | 50,007.1 | 100.0 | 187,167.4 | 100.0 | 274.3 | 100.0 | 5.4 | 3.4 |

Alberta

| HS | Description | 1993 | | 2008 | | Export Growth (%) 1993-2008 | Contribution to Total Export Growth (%) 1993-2008 | % EU Share | |
|----------------------|------------------------------|-----------------|--------------|------------------|--------------|-----------------------------|---|------------|------------|
| | | Export Value | % of Total | Export Value | % of Total | | | 1993 | 2008 |
| 27 | Mineral Fuels, Oil, Etc. | 12,891.4 | 63.9 | 80,148.7 | 72.5 | 521.7 | 74.4 | 0.3 | 0.1 |
| 84 | Machinery | 481.8 | 2.4 | 4,445.2 | 4.0 | 822.7 | 4.4 | 7.8 | 5.1 |
| 39 | Plastics | 524.3 | 2.6 | 3,779.3 | 3.4 | 620.8 | 3.6 | 0.2 | 0.4 |
| 29 | Organic Chemicals | 721.0 | 3.6 | 2,564.7 | 2.3 | 255.7 | 2.0 | 0.7 | 1.1 |
| 10 | Cereals | 884.8 | 4.4 | 2,415.3 | 2.2 | 173.0 | 1.7 | 3.7 | 6.6 |
| 25 | Salt, Sulfur, Earths, Stone, | 171.5 | 0.9 | 1,947.7 | 1.8 | 1,035.6 | 2.0 | 2.7 | 0.0 |
| 12 | Misc. Grains, Seeds,Fruits | 335.9 | 1.7 | 1,782.5 | 1.6 | 430.6 | 1.6 | 16.4 | 1.1 |
| 02 | Meat | 443.8 | 2.2 | 1,487.8 | 1.3 | 235.2 | 1.2 | 4.8 | 1.8 |
| 47 | Woodpulp | 412.9 | 2.0 | 1,429.0 | 1.3 | 246.1 | 1.1 | 23.6 | 3.0 |
| 73 | Iron and Steel Products | 77.6 | 0.4 | 885.2 | 0.8 | 1,040.9 | 0.9 | 4.2 | 1.1 |
| 31 | Fertilizers | 218.8 | 1.1 | 823.5 | 0.7 | 276.4 | 0.7 | 0.0 | 0.3 |
| 75 | Nickel and Products | 56.8 | 0.3 | 784.1 | 0.7 | 1,280.5 | 0.8 | 74.5 | 50.4 |
| 28 | Inorganic Chemicals | 136.3 | 0.7 | 771.9 | 0.7 | 466.2 | 0.7 | 7.7 | 3.6 |
| 85 | Electrical machinery | 372.7 | 1.8 | 747.3 | 0.7 | 100.5 | 0.4 | 15.4 | 7.4 |
| 90 | Precision Instruments | 136.9 | 0.7 | 644.7 | 0.6 | 370.9 | 0.6 | 28.7 | 11.0 |
| 01 | Live Animals | 551.8 | 2.7 | 627.8 | 0.6 | 13.8 | 0.1 | 0.0 | 0.1 |
| 15 | Fats, Oils, Waxes | 82.4 | 0.4 | 582.4 | 0.5 | 606.9 | 0.6 | 0.2 | 0.0 |
| 44 | Wood | 315.2 | 1.6 | 556.4 | 0.5 | 76.5 | 0.3 | 1.3 | 0.1 |
| 81 | Base Metals, Cements | 27.2 | 0.1 | 316.9 | 0.3 | 1,066.3 | 0.3 | 59.3 | 16.4 |
| 11 | Milling Products | 61.8 | 0.3 | 302.7 | 0.3 | 389.4 | 0.3 | 0.4 | 0.0 |
| Top 20 | | 18,905.0 | 93.7 | 107,043.1 | 96.8 | 466.2 | 97.4 | 2.5 | 1.1 |
| Total Alberta | | 20,168.0 | 100.0 | 110,625.7 | 100.0 | 448.5 | 100.0 | 2.5 | 1.2 |

British Columbia

| HS | Description | 1993 | | 2008 | | Export Growth (%) 1993-2008 | Contribution to Total Export Growth (%) 1993-2008 | % EU Share | |
|-------------------------------|---------------------------|-----------------|--------------|-----------------|-------------|-----------------------------|---|------------|------------|
| | | Export Value | % of Total | Export Value | % of Total | | | 1993 | 2008 |
| 27 | Mineral Fuels, Oils, Etc. | 1,844.7 | 9.3 | 9,729.8 | 28.9 | 427.4 | 57.1 | 2.2 | 10.8 |
| 44 | Wood | 7,675.8 | 38.7 | 5,252.9 | 15.6 | -31.6 | -17.6 | 5.5 | 7.0 |
| 47 | Woodpulp, Etc. | 2,353.9 | 11.9 | 2,924.7 | 8.7 | 24.2 | 4.1 | 30.5 | 10.1 |
| 26 | Ores, Slag and Ash | 658.3 | 3.3 | 1,776.5 | 5.3 | 169.9 | 8.1 | 8.1 | 8.9 |
| 48 | Paper, Paperboard | 1,732.3 | 8.7 | 1,774.6 | 5.3 | 2.4 | 0.3 | 7.6 | 3.2 |
| 84 | Machinery | 756.4 | 3.8 | 1,585.4 | 4.7 | 109.6 | 6.0 | 4.4 | 11.6 |
| 76 | Aluminum | 434.6 | 2.2 | 988.7 | 2.9 | 127.5 | 4.0 | 0.0 | 0.0 |
| 85 | Electrical Machinery | 300.0 | 1.5 | 884.1 | 2.6 | 194.7 | 4.2 | 4.2 | 20.7 |
| 03 | Fish | 708.2 | 3.6 | 881.3 | 2.6 | 24.5 | 1.3 | 2.7 | 3.2 |
| 28 | Inorganic Chemicals | 105.1 | 0.5 | 665.1 | 2.0 | 532.8 | 4.1 | 12.2 | 11.9 |
| 79 | Zinc and Products | 210.9 | 1.1 | 566.8 | 1.7 | 168.8 | 2.6 | 0.6 | 1.6 |
| 72 | 72 - Iron and Steel | 99.4 | 0.5 | 465.3 | 1.4 | 368.0 | 2.7 | 0.0 | 0.2 |
| 90 | Precision Instruments | 127.3 | 0.6 | 408.3 | 1.2 | 220.8 | 2.0 | 10.1 | 19.4 |
| 39 | Plastics | 73.6 | 0.4 | 406.5 | 1.2 | 452.0 | 2.4 | 1.8 | 2.2 |
| 73 | Iron or Steel Products | 148.2 | 0.7 | 348.9 | 1.0 | 135.4 | 1.5 | 0.3 | 2.0 |
| 87 | Vehicles, not Railway | 315.6 | 1.6 | 296.8 | 0.9 | -6.0 | -0.1 | 2.1 | 4.5 |
| 94 | Furniture | 97.5 | 0.5 | 294.6 | 0.9 | 202.2 | 1.4 | 3.5 | 3.3 |
| 88 | Aircrafts/Spacecrafts | 33.4 | 0.2 | 224.5 | 0.7 | 572.7 | 1.4 | 25.7 | 6.5 |
| 07 | Vegetables | 44.5 | 0.2 | 222.2 | 0.7 | 399.7 | 1.3 | 3.0 | 1.7 |
| 08 | Fruits and Nuts | 71.4 | 0.4 | 216.9 | 0.6 | 203.7 | 1.1 | 3.2 | 3.3 |
| Top 20 | | 17,791.1 | 89.8 | 29,914.1 | 89.0 | 68.1 | 87.9 | 8.3 | 8.5 |
| Total British Columbia | | 19,820.6 | 100.0 | 33,618.4 | 100 | 69.6 | 100.0 | 8.0 | 8.0 |

Saskatchewan

| HS | Description | 1993 | | 2008 | | Export Growth (%) 1993-2008 | Contribution to Total Export Growth (%) 1993-2008 | % EU Share | |
|---------------------------|--------------------------|----------------|--------------|-----------------|--------------|-----------------------------|---|------------|------------|
| | | Export Value | % of Total | Export Value | % of Total | | | 1993 | 2008 |
| 27 | Mineral Fuels, Oil, Etc. | 1,218.1 | 19.8 | 11,209.0 | 37.3 | 820.2 | 41.9 | 0.0 | 0.0 |
| 31 | Fertilizers | 1,143.6 | 18.6 | 6,064.8 | 20.2 | 430.3 | 20.6 | 1.1 | 0.3 |
| 10 | Cereals | 1,899.9 | 30.9 | 4,653.9 | 15.5 | 145.0 | 11.5 | 6.7 | 8.2 |
| 12 | Misc. Grain, Seed, Fruit | 416.2 | 6.8 | 1,997.3 | 6.7 | 379.9 | 6.6 | 23.3 | 15.9 |
| 07 | Vegetables | 135.0 | 2.2 | 1,636.9 | 5.5 | 1,112.5 | 6.3 | 60.2 | 8.2 |
| 28 | Inorganic Chemicals | 193.0 | 3.1 | 1,243.2 | 4.1 | 544.0 | 4.4 | 0.0 | 80.0 |
| 15 | Fats, Oils, Waxes | 13.9 | 0.2 | 637.7 | 2.1 | 4,491.4 | 2.6 | 0.1 | 0.1 |
| 84 | Machinery | 108.0 | 1.8 | 617.3 | 2.1 | 471.4 | 2.1 | 1.4 | 4.7 |
| 01 | Live Animals | 268.6 | 4.4 | 340.9 | 1.1 | 26.9 | 0.3 | 0.0 | 0.1 |
| 73 | Iron or Steel Products | 38.8 | 0.6 | 243.8 | 0.8 | 528.6 | 0.9 | 0.3 | 2.7 |
| 47 | Woodpulp, Etc. | 145.5 | 2.4 | 195.8 | 0.7 | 34.6 | 0.2 | 25.4 | 0.9 |
| 11 | Milling Products | 39.7 | 0.6 | 190.6 | 0.6 | 380.2 | 0.6 | 0.0 | 0.0 |
| 85 | Electrical Machinery | 37.5 | 0.6 | 189.6 | 0.6 | 405.5 | 0.6 | 1.5 | 1.5 |
| 23 | Animal Feed | 20.4 | 0.3 | 119.6 | 0.4 | 485.4 | 0.4 | 7.0 | 2.0 |
| 02 | Meat | 71.7 | 1.2 | 76.0 | 0.3 | 6.0 | 0.0 | 0.2 | 27.8 |
| 39 | Plastics | 9.6 | 0.2 | 58.8 | 0.2 | 513.0 | 0.2 | 0.2 | 1.5 |
| 44 | Wood | 74.4 | 1.2 | 58.1 | 0.2 | -22.0 | -0.1 | 0.2 | 0.4 |
| 38 | Chemical Products | 28.8 | 0.5 | 54.7 | 0.2 | 90.0 | 0.1 | 0.0 | 4.2 |
| 72 | Iron and Steel | 53.9 | 0.9 | 52.2 | 0.2 | -3.3 | 0.0 | 0.0 | 0.1 |
| 87 | Vehicles, not Railway | 21.7 | 0.4 | 45.3 | 0.2 | 108.4 | 0.1 | 0.3 | 3.3 |
| Top 20 | | 5,938.4 | 96.5 | 29,685.5 | 98.9 | 399.9 | 99.5 | 6.0 | 6.5 |
| Total Saskatchewan | | 6,154.9 | 100.0 | 30,027.0 | 100.0 | 387.9 | 100.0 | 5.9 | 6.5 |

Manitoba

| HS | Description | 1993 | | 2008 | | Export Growth (%) 1993-2008 | Contribution to Total Export Growth (%) 1993-2008 | % EU Share | |
|-----------------------|---------------------------|----------------|--------------|-----------------|--------------|-----------------------------|---|------------|------------|
| | | Export Value | % of Total | Export Value | % of Total | | | 1993 | 2008 |
| 10 | Cereals | 595.5 | 15.4 | 1,323.3 | 10.3 | 122.2 | 8.1 | 4.9 | 5.5 |
| 27 | Mineral Fuels, Oil, Etc. | 401.2 | 10.4 | 1,305.0 | 10.1 | 225.3 | 10.0 | 0.0 | 0.0 |
| 12 | Misc. Grain, Seed, Fruit | 300.5 | 7.8 | 1,168.6 | 9.1 | 288.9 | 9.6 | 26.1 | 7.0 |
| 75 | Nickel and Products | 164.6 | 4.3 | 1,035.8 | 8.0 | 529.3 | 9.6 | 32.9 | 2.0 |
| 84 | Machinery | 285.3 | 7.4 | 972.6 | 7.5 | 240.9 | 7.6 | 2.6 | 4.3 |
| 87 | Vehicles, not Railway | 346.0 | 9.0 | 758.7 | 5.9 | 119.2 | 4.6 | 0.8 | 0.8 |
| 74 | Copper and Products | 4.7 | 0.1 | 637.2 | 4.9 | 13,584.3 | 7.0 | 1.7 | 0.0 |
| 01 | Live Animals | 234.0 | 6.1 | 595.4 | 4.6 | 154.4 | 4.0 | 0.0 | 0.0 |
| 15 | Fats, Oils, Waxes | 66.9 | 1.7 | 501.6 | 3.9 | 649.7 | 4.8 | 12.1 | 0.1 |
| 02 | Meat | 71.1 | 1.8 | 389.7 | 3.0 | 447.8 | 3.5 | 0.9 | 0.0 |
| 39 | Plastics | 57.0 | 1.5 | 319.3 | 2.5 | 460.4 | 2.9 | 1.7 | 2.8 |
| 20 | Preserved Plants | 8.1 | 0.2 | 294.3 | 2.3 | 3,534.2 | 3.2 | 0.0 | 0.0 |
| 48 | Paper and Paperboard | 89.1 | 2.3 | 282.3 | 2.2 | 216.9 | 2.1 | 1.5 | 1.1 |
| 88 | Aircrafts and Spacecrafts | 129.9 | 3.4 | 272.8 | 2.1 | 109.9 | 1.6 | 5.4 | 3.1 |
| 85 | Electrical Machinery | 108.4 | 2.8 | 235.4 | 1.8 | 117.0 | 1.4 | 4.8 | 7.0 |
| 31 | Fertilizers | 23.3 | 0.6 | 215.9 | 1.7 | 825.5 | 2.1 | 0.3 | 0.0 |
| 30 | Pharmaceutical Products | 1.1 | 0.0 | 191.7 | 1.5 | 17,175.6 | 2.1 | 81.0 | 4.0 |
| 44 | Wood | 120.2 | 3.1 | 183.2 | 1.4 | 52.4 | 0.7 | 0.1 | 0.2 |
| 72 | Iron and Steel | 52.4 | 1.4 | 171.9 | 1.3 | 228.3 | 1.3 | 0.1 | 5.2 |
| 94 | Furniture, non Medical | 70.7 | 1.8 | 167.0 | 1.3 | 136.0 | 1.1 | 0.9 | 1.9 |
| Top 20 | | 3,130.2 | 81.0 | 11,021.6 | 85.5 | 252.1 | 87.4 | 6.3 | 2.5 |
| Total Manitoba | | 3,863.6 | 100.0 | 12,896.3 | 100.0 | 233.8 | 100.0 | 7.5 | 3.3 |

Appendix 2: Trade Liberalization Analysis

| Product | 2008 EU Import Value (million Euro) | 2008 EU Import Value (million \$CAN) | 2008 EU Import Volume (million kg) | \$CAN/kg | AB Total Exports (million \$CAN) | AB EU Exports (\$CAN) | AB Export Volume (kg) | Share of AB Exports | Share of EU Imports |
|---------|-------------------------------------|--------------------------------------|------------------------------------|----------|----------------------------------|-----------------------|-----------------------|---------------------|---------------------|
| 390120 | 925.7 | 1,423.3 | 840.0 | 1.69 | 990.3 | 21,041.0 | 12,418.3 | 0.002% | 0.0015% |
| 310210 | 1,098.3 | 1,688.6 | 3,341.7 | 0.51 | 628.8 | 1,481,126.0 | 2,931,052.1 | 0.236% | 0.0877% |
| 290531 | 302.7 | 465.4 | 403.2 | 1.15 | 1,237.1 | 16,833.0 | 14,583.3 | 0.001% | 0.0036% |
| 250300 | 120.0 | 184.5 | 459.5 | 0.40 | 1,896.6 | 63,758.0 | 158,790.3 | 0.003% | 0.0346% |

| Product | Gain from Obtaining 25% of EU Import Market (million \$CAN) | Gain from Obtaining 50% EU Import Market (million \$CAN) | Ad Valorem Tariff Rate | Increase in Quantity if Tariff removed (€= 2.0) | Increase in Quantity if Tariff Removed (€= 3.0) | Increase in Volume €= 2.0 (kg) | Increase in volume €= 3.0 (kg) | Gain from Removal of Tariffs €= 2.0 (1000's \$CAN) | Gain from Removal of Tariffs €= 3.0 (1000's \$CAN) |
|--------------|---|--|------------------------|--|--|--------------------------------|--------------------------------|--|--|
| 390120 | 355.8 | 711.6 | 4.87% | 9.7% | 14.6% | 1,209.5 | 1,814.3 | 2.0 | 3.1 |
| 310210 | 420.7 | 842.8 | 6.50% | 13.0% | 19.5% | 381,036.8 | 571,555.2 | 192.5 | 288.8 |
| 290531 | 116.3 | 232.7 | 5.00% | 10.0% | 15.0% | 1458.3 | 2,187.5 | 1.7 | 2.5 |
| 250300 | 46.1 | 92.2 | 0.85% | 1.7% | 2.6% | 2,699.4 | 4,049.2 | 1.1 | 1.6 |
| Total | 938.9 | 1,879.3 | - | - | - | - | - | 197.4 | 296.0 |