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## OFFICE OF THE CHIEF ECONOMIST: ANALYTICAL REPORT

## **Canadian Performance in the U.S. Market, 1995-2009: Product Mix, Competitiveness and Market Share**

**Mykyta Vesselovsky, Florence Jean-Jacobs, David Boileau  
June 2010**

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### **Executive summary**

Canadian trade with the U.S. is not only the largest bilateral trade relationship in the world, it also serves as the foundation of the present-day Canadian economy. Its importance for Canada is such that several industries are more susceptible to the U.S. economic conditions than to domestic ones. Given that, understanding of the behaviour of our market share in the United States and early recognition of its long-term trends is of great importance.

What these trends show is not very encouraging - since 1995, Canada lost about a quarter of its market share in the United States merchandise import market, a process that seems to have been accelerated by the global recession. Most of that loss occurred after 2000, and most of it was caused by a decrease in competitiveness of our exports. This trend was exacerbated by global recession, with declines both on the product mix side and the competitiveness side of Canadian exports to the United States.

Had the post-2000 loss not occurred, our exports to the U.S. over the 2000-2009 period would have grown by an extra \$92 billion. While competitiveness was the main driver, the effects of the product mix sold to the United States on our export growth were marginal until 2009 - slightly subtracting from the overall growth in the 1995-2000 period, and slightly contributing to it over the 2000-2008 period. However, during the year 2009, the contribution of the product mix to the decline in Canadian exports was stronger than that of competitiveness effect.

Though loss of competitiveness played a primary role in the market share decline, it is not clear whether the appreciation of the Canadian dollar or the rise in competitiveness of East Asian exporters (particularly China) have played the key role. As these factors are likely to persist, this analysis underscores the need for raising Canadian competitiveness through both increased productivity and increased competition through entry of new exporters into the U.S. market – a topic of current intense policy discussion. While maintaining market share in a world of emerging economies may not be within anyone's power, an innovative nation with high productivity, world-class education and forward-looking investment and fiscal policies would be well positioned to succeed in a world that is more economically diversified than in the past. If the changes identified in our market share in the U.S. over the past decade are major and permanent, the recognition of the new trading realities through diversified engagement strategies may be necessary in order to preserve Canada's status as one of the world's foremost trading nations, with an extensive role to play for TCS both in the U.S. and beyond.



## I. The Role of Canada-U.S. trade

The importance of Canada's trading relationship with the United States needs no extensive introduction. It is well-known to be the largest bilateral trade relationship in the world. Since the implementation of the Canada-U.S. Free Trade Agreement (FTA) in 1989, two-way trade has more than tripled. In 2008, our bilateral trade in goods and services was \$742.0 billion, with \$2.0 billion worth of goods and services crossing the border every single day.

Canada's exports of goods and services to the United States are equivalent to nearly 25.5 percent of our GDP. In 2008, the United States received roughly 72.8 per cent of our exports (goods and services) and supplied 62.4 per cent of our imports. The U.S. sells more goods and services to Canada than to Mexico and Japan combined. While a small number of high-profile issues exist, the vast majority of our trade is dispute-free.

The profound effects of this trading relationship constitute the very core of the modern Canadian economy. Large sectors of Canadian resource and manufacturing industries have historically developed in response to demand patterns from the United States. Our logging, mining, construction and automotive industries on occasion are more affected by events in the U.S. than they are by domestic events. U.S. currency fluctuations, unemployment and real estate conditions are frequently cited in terms of their effect on Canadian exports to the United States first and foremost, before Canadian market conditions are considered.

## II. Changes in the Picture Since 2000

Clearly then, any major changes to this trading relationship are of fundamental concern to the Canadian businesses, policymakers and public. And on any scale, the events that have occurred since 2000 qualify as a major change. Growth in Canadian exports of both goods and services to the U.S., well above 10 percent a year in the 1990's, has slowed down to a fraction of a percentage point in the 2000-2008 period (growth of outward investment flows also slowed considerably). As a result, Canada's share of the U.S. goods import market fell from 19.5 percent in 1995 to 16.1 percent in 2008.

In 2009, large declines in merchandise exports and imports from the U.S. (28 and 18 percent, respectively) have occurred. This performance was strongly linked to the global economic crisis and weakened commodity prices. Considering the sluggish trade growth throughout the 2000's, these declines may make the 2008 trade levels (quoted above) a high point in the Canada-U.S. trade relationship for several years. The events associated with the crisis seem to have exacerbated the trend that was already present in the data, bringing our market share in the U.S. down to 14.5 percent. This amounts to a loss of **over one-quarter** of market share in 15 years, most of it in the past decade. So what has happened, and why?

The major part of the explanation certainly has to rest with the U.S. economic performance during this decade. It opened with the high-tech bust of 2000 and the 2001 recession, whose impact was not as strong in Canada, but which seriously affected the high-tech sector with its strong ties to the United States. This was followed by a progressive deterioration of the United



States fiscal position. At the same time, buoyed by the increasing commodity prices, the Canadian dollar started on its long appreciation trend relative to the U.S. dollar, briefly reaching parity and above before moderating in the wake of the global recession. Needless to say, the impact of this nearly 50 percent appreciation on the demand for Canadian exports in the U.S. was considerable. Consider also that continuing U.S. engagement on the bilateral free-trade circuit<sup>1</sup> has opened new opportunities in its internal market for other countries, leading to the relative erosion of the value of CUFTA and NAFTA tariff preferences that fuelled the trade expansion in the 1990's. Last but not least may be cited the expanding economic reach of the emerging markets, whose burgeoning export-oriented economies have predictably cut into the market share of the established trading nations.

### III. General Trends in the Elements of U.S. imports from Canada, 1995-2008

The primary goal of this paper, however, is to examine the causes of this market share loss in greater detail. To gain a greater understanding of our trade performance, we decompose the total change in U.S. imports from Canada into three separate effects: the growth effect (or market size effect), the product mix effect, and the competitiveness effect. This decomposition is a form of **constant market share analysis (CMSA)**, widely used in trade and economic policy research:

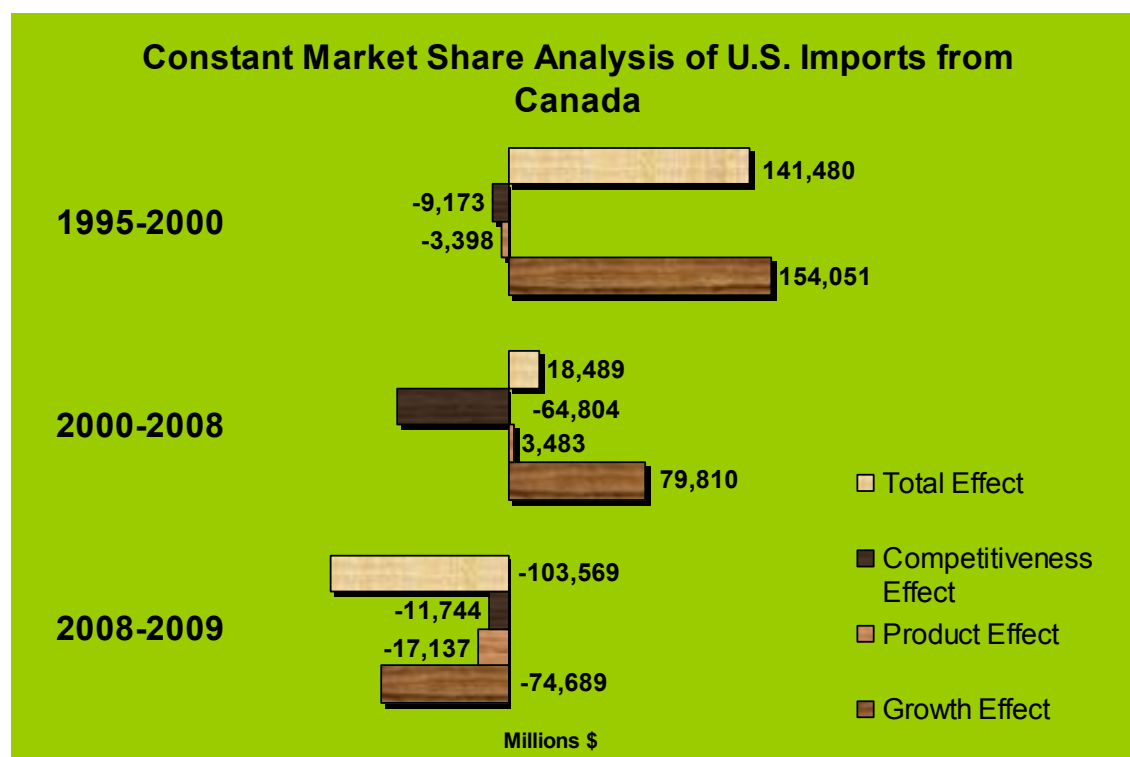
$$\text{Total Effect} = \text{Growth Effect (GE)} + \text{Product Effect (PE)} + \text{Competitiveness Effect (CE)}$$

The growth effect (GE) refers to the potential growth in U.S. imports from Canada, had they grown at the same rate as total U.S. imports from the world over that period. The product effect (PE) indicates how much of the change in U.S. imports from Canada is explained by the rise and fall of particular sectors in U.S. imports, and thus is linked to Canada's export product mix. Our concentration in fast-growing product sectors would mean an increase in U.S. imports from Canada, and vice versa. Finally, competitiveness effect (CE) illustrates the gain/loss in U.S. imports from Canada due to Canada gaining/losing market share in a particular sector over the period. This represents the change in Canada's competitiveness against other sources of U.S. imports.

The results of this procedure provide a number of insights. First of all, in the 1995-2000 period Canada performed well in the U.S. market and saw a \$141 billion increase in U.S. imports from Canada. This was mainly due to a booming U.S. economy - the analysis shows that all of the increase came from rising U.S. import demand, while competitiveness and product mix were a small drag on U.S. imports from Canada (as a result, Canadian share only slightly declined from 19.5 to 18.8 percent over this period). The negative impact of the competitiveness effect was small, costing Canada only \$9 billion in potential U.S. imports. The negative effect of a poor product mix was even smaller with a \$3-billion negative effect. The combined impact of these two negative effects shaved 8 percent off Canada's export growth, but we can consider this a good result for Canada's efforts to maintain its market share in the U.S. over this period.

<sup>1</sup> Other opportunities for U.S. trade became more attractive as well over this period, for example with China joining the WTO.

Figure 1



However, in the 2000-2008 period, the picture changed dramatically. First of all, growth in U.S. demand slowed - the growth effect for this period (\$80 billion over 8 years) was only about half of the previous effect (\$154 billion over 5 years). Secondly, these gains, small as they were, were largely offset by Canada's declining competitiveness and a consequently shrinking market share. The effects of the product mix, positive but small, were not sufficient to influence the outcome to any strong degree (a \$3 billion gain, largely due to growth in commodity prices).

In other words, while in the 1995-2000 period Canada kept its slice of a rapidly growing pie, the picture over the 2000-2008 period shows Canada getting a shrinking slice of a pie that grew at moderate pace (the pie being the U.S. import market).

Finally, the more recent 2009 trade analysis shows that all of these effects contributed negatively to trade, combining for a fall of \$104 billion in Canadian exports to the United States. The 2009 fall in U.S. imports from Canada was due primarily to an overall decline in the U.S. market (costing us \$75 billion in exports), but it was made worse by weakening competitiveness as well as an unfavourable product mix (largely due to moderation in commodity prices, but also to the negative conditions in the automotive sector).

### III. Growth vs. Product vs. Competitiveness Effects

The three effects that add up to the total change in exports can be interpreted in an intuitive way. Suppose that data on U.S. economy arrives with a time lag, so that the first piece of information we receive is that the general increase in U.S. import levels is equal to 5 percent this year. If we were to predict Canadian export growth based on that information alone, the best estimate for every sector would be that of 5 percent growth. This naïve assumption would represent the **growth effect** (assuming away all sectoral adjustments and change in market shares).

A little later, new data on the U.S. economy would come in, indicating that the 5 percent increase in imports was uneven across sectors – suppose that the automotive sector fell 5 percent, but the energy sector grew by 15 percent. This would require us to readjust our forecasts of Canadian exports, according to the shares of our exports in these two sectors. If we are relatively more invested in the energy sector, the resulting **product effect** would cause our exports to be revised up; if we were more exposed to the automotive sector, the product effect would result in a downward overall effect on exports.

At this stage, if there were no market share adjustments, the result jointly predicted by the growth effect and product effect would be final. But when the actual data on U.S. imports from every country arrives, it will indicate changes in market share for various countries. These changes are treated as **competitiveness effect** and can be explained by a number of reasons – from currency fluctuations to technological progress (innovation). The sum of all three effects gives the final change in Canadian exports to the United States over the period under study.

With regard to Canadian policy-making capacity, there is little that can be done about the growth effect – the U.S. import market is generally independent of Canadian actions. The other two effects, however, can be influenced. Addressing competitiveness is widely practised with a number of tools: tax policy, investment policy, labour market regulations etc. Generally, most efforts to promote trade, investment and innovation involve improving the competitive side of this equation.

Product effect can be addressed with industrial policy – if the government believes certain sectors are fated to grow in the long run, over and above market expectations. However, there is considerable uncertainty involved in this process – for example, the information technology sector seemed like the best of investments before 2000. The general consensus in the economic literature is that governments are less capable at picking winners than the markets. For every success story (e.g. the Japanese auto industry) there is a long list of failures. Yet learning about the effects of Canadian product mix on our exports to the U.S. and comparing it with international profile is helpful for the understanding the evolution of Canadian exports. Section V undertakes this task in some detail after we present the main results of our analysis in Section IV, applied to every sector and organized by period.





## IV. Sectoral Analysis of the Elements of U.S. imports from Canada, 1995-2008

## 1995-2000

The total growth in U.S. imports from Canada over this period (\$141 billion) represented a 71 percent increase. This was spread unevenly over sectors, from a low of 35 percent in wood and paper to the highs of 217 percent in the aerospace sector and 149 percent in the energy sector. In pure value terms, several sectors shared the lead: energy, automotives and machinery and electrical equipment sector (MEQ) all grew by over \$25 billion over this period. Miscellaneous manufacturing (MMFG) was a close fourth with \$21 billion growth. Meanwhile, the brisk aerospace percentage growth amounted to less than \$5 billion in value terms.

1995-2000 Change in US imports from Canada					
	Growth Effect (GE)	Product Effect (PE)	Competitiveness Effect (CE)	Total Effect (GE+PE+CE)	Increase in US imports from Canada
Description	(\$M)	(\$M)	(\$M)	(\$M)	%
Agri-Food	7,494	-2,634	1,918	6,778	70.0
Met&Min	16,229	-3,156	-4,877	8,196	39.1
Energy	14,551	12,589	949	28,089	149.3
Chemicals	12,150	120	-2,859	9,411	59.9
Wood&Paper	21,068	-9,610	-1,890	9,568	35.1
Mach&El	21,558	-2,589	6,214	25,183	90.4
Auto	43,178	-2,268	-13,474	27,436	49.2
Aero	1,725	2,968	142	4,835	216.8
Misc Mfg	16,098	1,182	4,704	21,984	105.6
<b>TOTAL</b>	<b>154,051</b>	<b>-3,398</b>	<b>-9,173</b>	<b>141,480</b>	<b>71.0</b>

These different sectors achieved their growth through different means. The unquestioned beneficiary of the growth effect was the automotive sector with a \$43 billion boost from general U.S. import growth, more than double that of any other sector. However, that increase was severely mitigated by the negative competitiveness effect (a \$13 billion loss) and a somewhat negative product effect (\$2 billion loss), for a second-place overall finish behind energy. The fortunes of energy were quite different: a growth effect boost of under \$15 billion was almost doubled by the contribution of the product effect (almost \$13 billion), with a modest help from competitiveness (\$1 billion gain). Lastly, competitiveness (rising market share) was behind the improving fortunes of the MEQ and MMFG sectors, contributing heavily to their total import growth.

## 2000-2008

While Canada still remained fairly competitive in the U.S. import market in the late 90s, holding on to its market share in the vicinity of 20 percent, in the new millennium Canada's performance began to slip. Its share of U.S. imports fell from 19 percent in 2000 to 16 percent in 2008. Although overall U.S. import growth also slowed over this period, weakening competitiveness dragged U.S. imports of Canadian merchandise down further and cost Canada \$65 billion in potential exports (had Canada kept constant share over that period). As it were, the actual gain was just \$18 billion (including a small positive contribution from the product mix).



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2000-2008 Change in US imports from Canada					
Description	Growth Effect (GE) (\$M)	Product Effect (PE) (\$M)	Competitiveness Effect (CE) (\$M)	Total Effect (GE+PE+CE) (\$M)	imports from Canada %
Agri-Food	3,858	1,833	-332	5,359	32.5
Met&Min	6,836	4,207	-424	10,619	36.4
Energy	10,988	64,217	-34	75,171	160.3
Chemicals	5,885	7,901	-3,079	10,707	42.6
Wood&Paper	8,623	-16,275	-7,420	-15,072	-41.0
Mach&El	12,430	-13,689	-18,153	-19,412	-36.6
Auto	19,507	-32,102	-20,405	-33,000	-39.6
Aero	1,656	-2,750	79	-1,016	-14.4
Misc Mfg	10,027	-9,859	-15,035	-14,867	-34.7
<b>TOTAL</b>	<b>79,810</b>	<b>3,483</b>	<b>-64,804</b>	<b>18,489</b>	<b>5.4</b>

The negative competitiveness effect was seen across all sectors over this period with the exception of aerospace (showing a marginally positive CE). The automotive sector exhibited the worst CE of negative \$20 billion, wiping out all the growth effect gains as Canada's share of U.S. auto imports declined from 34 to 24 percent over this time<sup>2</sup>. A large loss of competitiveness also occurred in the MEQ and MMFG sectors, which was even worse than for automotives (50 percent larger than the growth effect gain). To make matters worse, a decline in the relative importance of those sectors in the U.S. import picture resulted in a further hit from the product effect side for all of those industries. The combined declines in U.S. imports from Canada in these sectors were a staggering 35 to 40 percent. Wood and paper exports, while lower in value, were hit even harder by those combined forces for a 41 percent decline.

This woeful picture was somewhat obscured by enormous product effect gains accruing to the energy sector that amounted to a \$64-billion boost to U.S. imports from Canada. Loss of competitiveness in energy, chemicals, agri-food and metals & minerals sectors was much milder, allowing them all to post overall gains – though the energy sector was the only big winner. The increase in that sector was about four times larger than the overall increase in U.S. imports from Canada (which would have declined otherwise).

Overall, the sector mix of U.S. imports from Canada over this period resulted in a positive effect and contributed over \$3 billion to overall growth. Benefits from concentration in the energy sector were almost fully offset by product shift away from automotives, MEQ, MMFG and wood and paper sectors.

### V. International Analysis of Product Effects

We turn now to some of the questions that this paper might provoke: does product effect have a significant role to play in Canada's export performance? If so, can it and should it be affected by government policy in the "right" direction? To help us answer these questions, we examine which of Canada's international competitors benefited from their product mix over this period. Then we compare Canada's sectoral shares in the U.S. import markets (as these control the product mix effects) with Canada's main competitors in that market.

<sup>2</sup> Mexico, Germany, South Korea and China were the countries that gained automotive share in that period.



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Canada has a very diverse product mix, with most sectors supplying around 20-25 percent of U.S. import needs (as of 2008). Nearly every sector shows considerable Canadian influence, corresponding to economic expectations given Canada's proximity to the U.S., industrial structure and consequent propensity to trade. Wood and paper holds a considerably higher than average share, and MEQ/MMFG sectors are considerably lower (below 10 percent). Low exposure to the latter two sectors was probably a major factor behind the overall gain from product mix between 2000 and 2008; exposure to auto and forestry worked the other way, but was counterbalanced by favourable energy exposure.

Top Eight U.S. Import Sources, 2008				
<i>Market shares, 2008</i>	Canada	China	Mexico	Japan
Agri-Food	21.6%	5.8%	12.7%	0.7%
Met&Min	19.1%	16.0%	7.8%	3.2%
Energy	23.5%	0.4%	8.5%	0.1%
Chemicals	14.9%	13.0%	3.0%	5.4%
Wood&Paper	48.5%	17.4%	3.4%	1.6%
Mach&EI	6.3%	29.1%	15.6%	10.1%
Auto	24.4%	3.3%	16.5%	27.0%
Aero	26.6%	0.9%	0.9%	7.8%
Misc Mfg	7.9%	32.9%	8.3%	4.1%
<b>Total Market Share</b>	<b>16.1%</b>	<b>16.1%</b>	<b>10.3%</b>	<b>6.6%</b>
<i>Market shares, 2008</i>	Germany	United Kingdom	Saudi Arabia	Venezuela
Agri-Food	1.5%	2.1%	0.0%	0.1%
Met&Min	3.8%	2.1%	0.0%	0.7%
Energy	0.4%	1.7%	11.0%	10.0%
Chemicals	8.0%	7.1%	0.2%	0.3%
Wood&Paper	3.5%	1.7%	0.0%	0.0%
Mach&EI	5.7%	2.1%	0.0%	0.0%
Auto	11.8%	2.6%	0.0%	0.0%
Aero	5.7%	8.2%	0.0%	0.0%
Misc Mfg	4.2%	2.9%	0.0%	0.0%
<b>Total Market Share</b>	<b>4.6%</b>	<b>2.8%</b>	<b>2.6%</b>	<b>2.4%</b>



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Effect Shares, 2000-2008	Canada		Share of 2008 trade	China		Share of 2008 trade
	\$M	%		\$M	%	
<b>TOTAL EFFECT</b>	<b>18,488</b>	<b>100</b>	<b>5.4%</b>	<b>212,291</b>	<b>100</b>	<b>62.9%</b>
Growth Effect	79,810	432	23.5%	34,885	16	10.3%
Product Effect	3,484	19	1.0%	-22,584	-11	-6.7%
Competitiveness Effect	-64,806	-351	-19.1%	199,990	94	59.2%
Effect Shares, 2000-2008	Germany		Share of 2008 trade	United Kingdom		Share of 2008 trade
	\$M	%		\$M	%	
<b>TOTAL EFFECT</b>	<b>16,241</b>	<b>100</b>	<b>16.7%</b>	<b>-2,437</b>	<b>-100</b>	<b>-4.2%</b>
Growth Effect	20,451	126	21.0%	15,137	621	25.8%
Product Effect	-15,303	-94	-15.7%	1,374	56	2.3%
Competitiveness Effect	11,093	68	11.4%	-18,947	-778	-32.3%
Effect Shares, 2000-2008	Mexico		Share of 2008 trade	Japan		Share of 2008 trade
	\$M	%		\$M	%	
<b>TOTAL EFFECT</b>	<b>27,350</b>	<b>100</b>	<b>12.7%</b>	<b>-70,100</b>	<b>-100</b>	<b>-50.3%</b>
Growth Effect	47,335	173	21.9%	51,047	73	36.7%
Product Effect	-14,731	-54	-6.8%	-50,510	-72	-36.3%
Competitiveness Effect	-5,254	-19	-2.4%	-70,637	-101	-50.7%
Effect Shares, 2000-2008	Saudi Arabia		Share of 2008 trade	Venezuela		Share of 2008 trade
	\$M	%		\$M	%	
<b>TOTAL EFFECT</b>	<b>36,609</b>	<b>100</b>	<b>66.9%</b>	<b>26,383</b>	<b>100</b>	<b>51.3%</b>
Growth Effect	4,952	14	9.0%	6,498	25	12.6%
Product Effect	27,426	75	50.1%	34,399	130	66.9%
Competitiveness Effect	4,231	12	7.7%	-14,514	-55	-28.2%

It is noteworthy that China, Canada's nemesis in the U.S. market, has not benefited at all from product effect over the 2000-2008 period. On the contrary, its product mix subtracted over 10 percent from its enormous competitiveness-driven gains. This is largely due to China's concentration in MEQ and MMFG sectors, whose decline over this period has already been described earlier; China's exposure to the hard-hit wood and paper sectors is also considerable.

The story is much the same for the other main Canadian competitors in the U.S. market. Mexico (3<sup>rd</sup> U.S. import source), Japan (4<sup>th</sup>) and Germany (5<sup>th</sup>) all benefited from the U.S. import growth, but lost heavily (from \$10 to \$50 billion) due to their product mix. Automotive and MEQ sectors exposure are the main culprits behind this results. U.K. (6<sup>th</sup>) has gained a marginal amount of exports (\$1 billion) through its product mix, their strongest positions being in chemicals and aerospace sector.

But there were countries that had a positive product effect with the U.S. just slightly down the list. Saudi Arabia (7<sup>th</sup>) and Venezuela (8<sup>th</sup>) present the most extreme cases of gains from product mix: their exposure to the U.S. import market was largely limited to energy. That allowed them to post colossal product effect gains over the period in question.

Considering the above picture, and the economic crisis experience, it is questionable whether efforts to influence product mix would result in an improved performance. The existing structure of trade is much too delicate to be analyzed at such a high level; certainly China did not suffer overmuch from its poor product mix in this decade, but rather saw its exports to the U.S. grow through superior competitiveness. Addressing the competitive side of trade through improved



innovation and productivity also seems to be the most promising route for improving Canada's performance in the United States – and beyond.

## VI. The Crisis Year: 2009 analysis

2009 was an unusual year, whose experience is best considered separately. Nevertheless, as far as the dynamics of Canadian exports to the United States, the analysis for 2009 shows that the trend of poor Canadian export performance continued and escalated. The Canadian share of U.S. merchandise imports declined to 14.5 percent in 2009 from 16.1 percent in 2008. Over this period, U.S. imports from Canada decreased by \$104 billion and were 28.8 percent below their 2008 level. While a large portion of this drop (\$75 billion) can be attributed to the decline in overall U.S. import demand due to the U.S. recession during this period, this drop was exacerbated by an unfavourable product effect (worth \$17 billion), which exceeded the loss of competitiveness effect (\$12 billion).

The product mix's large contribution to the 2009 declines was rather unusual and represents a combination of special circumstances – sectors with large Canadian concentration have shrank, and vice versa. While over the 2000-2008 period the energy sector benefited tremendously from the commodity prices, these have now come down. Total U.S. energy imports have fallen 41 percent mainly due to declining prices. Automotive and metals and minerals sectors also contributed to the negative product mix effect, though these were partly offset by other sectors (agri-food and chemicals). While recovery began to take hold in the U.S. economy, it was particularly significant in the chemicals, MEQ and MMFG sectors - precisely those sectors where Canadian share is small (see previous section).

2008-2009 Change in US imports from Canada					
	Growth Effect (GE)	Product Effect (PE)	Competitiveness Effect (CE)	Total Effect (GE+PE+CE)	Increase in US imports from Canada
Description	(\$M)	(\$M)	(\$M)	(\$M)	%
Agri-Food	-4,539	3,947	-1,776	-2,368	-10.8
Met&Min	-8,276	-3,993	-1,216	-13,485	-33.9
Energy	-25,388	-24,656	158	-49,886	-40.9
Chemicals	-7,451	4,018	-2,730	-6,162	-17.2
Wood&Paper	-4,520	139	-466	-4,847	-22.3
Mach&El	-6,997	3,259	-2,700	-6,437	-19.1
Auto	-10,452	-3,858	-304	-14,614	-29.1
Aero	-1,258	754	277	-228	-3.8
Misc Mfg	-5,808	3,253	-2,987	-5,542	-19.8
<b>TOTAL</b>	<b>-74,689</b>	<b>-17,137</b>	<b>-11,744</b>	<b>-103,569</b>	<b>-28.8</b>

On the competitiveness side, Canada broke even in energy and aerospace and lost market share in all other sectors<sup>3</sup>. The automotive sector is no longer “leading” Canada's poor competitiveness performance, with the largest competitive losses having occurred in MMFG, chemicals, and machinery and electrical equipment sectors. The total effect, however, is that of massive declines in U.S. imports from Canada from all sources in 2009.

<sup>3</sup> Note that energy and aerospace are showing remarkable market share stability through good and bad times alike (this may be linked to long-term contracts and supply arrangements).

## VII. Conclusions

The growth of Canadian exports to the U.S. slowed down considerably after 2000. Separating total export growth into market growth effect, product mix effect and competitiveness effect allowed us to better understand this process. Pre-2000 growth rates could not be sustained for two main reasons: the growth of the U.S. import market slowed down considerably after 2000, and the competitiveness of Canadian exports declined (which, in turn, is due to several factors, the appreciation of the Canadian dollar looming large among them). Thus largely as a result of this decline in competitiveness, Canada lost over a quarter of its market share in its most important market between 1995 and 2009 (almost all of it between 2000 and 2009).

The margin by which the product mix effect has contributed to this decline was zero overall in the 1995-2008 period (though it has been significant in particular sectors), but became a considerable drag in 2009. This is explained by Canada's close links with the United States and the consequently high market shares in nearly all sectors. Only an exceptional set of circumstances can cause the overall U.S. import product mix to have a significant impact on Canadian exports. It is remarkable that this is largely what occurred in 2009 – U.S. energy import share has declined considerably due to dropping prices, and growth mainly occurred in chemicals, MEQ and MMFG – the precise sectors where Canadian share is low. As a result, product effect negatively affected Canadian exports, driving them even lower than could be expected as a result of the global recession, and reversing the small overall product mix gains made since 2000.

International analysis shows that several countries in the top eight U.S. import sources lost market share as well, most notably Japan, but also the U.K. and Mexico. Nearly all of the U.S. trading partners were hit with a negative product mix effect in 2000-2008, Saudi Arabia and Venezuela excepted. The latter, being nothing but oil suppliers to the U.S., have benefited from the high energy prices in a way that the much more balanced Canadian economy could not possibly hope to.

