



C.D. Howe Institute  
**Commentary**

www.cdhowe.org

No. 236, July 2006

ISSN 0824-8001

# Too Many Eggs in One Basket?

*Evaluating Canada's Need to  
Diversify Trade*

Danielle Goldfarb

***In this issue...***

*Diversifying Canada's trade away from the US has proponents among pundits and politicians. But what are the economic implications of such a strategy? The record suggests that shifting away from the current trade mix could leave Canada worse off economically. Let businesses, not Ottawa, choose new export markets, the author advises.*

## *The Study in Brief*

Commentators and politicians alike continue to argue that Canada should diversify its trade away from the United States, by far its largest trading partner, reasoning that dependence on the US leaves Canada vulnerable. This Commentary represents a modest start at evaluating whether the current state of affairs is an economic problem and whether the government can, and should, attempt to diversify trade for economic reasons. The intention is to provide policymakers and commentators who contemplate geographic diversification — for either political or economic reasons — with a better awareness of the economic implications of such a strategy.

The findings might surprise the proponents of diversification. By loosely borrowing from investment portfolio theory, using export volatility and growth as measures of risk and return, the study assesses Canada's geographic trade mix from both a trade growth and stability perspective. The study does not uncover any evidence that the mix is economically problematic, on either grounds. It finds that concentration in the US market has not been associated with greater export volatility. Canadian exports to the US are relatively stable, have lower overall risk relative to other markets, and have relatively high records of growth. And Canada already benefits from lower risk through diversification across US regions, whose imports from Canada do not behave perfectly in parallel. Moreover, diversifying away from the US is unlikely to reduce overall risk significantly, since US import performance tends to move in parallel with those of Canada's other major trade partners. Policy-led diversification could even increase volatility and lower exports and income, making Canada worse off in economic terms.

Though Canadian businesses overwhelmingly trade and invest in the US market, Canadian trade and investment are less concentrated in the US than is commonly cited — official statistics overstate the concentration, and the share of US exports in overall Canadian production is much lower than their share of Canadian trade. Further, Canada-US trade as a share of Canada's total trade is declining, as trade with other countries rises faster than trade with the US. For example, 79 per cent of Canada's exports of goods and services now go to the US, down from 81 per cent in 1999, and 67 per cent of Canada's imports of goods and services now come from the US, down from 75 per cent in 1999.

The study points out that individuals and businesses — not governments — determine trade patterns. Instead of trying to orchestrate or change their decisions, Ottawa should turn its attention to providing market information not easily accessible to businesses, and addressing barriers to trade and investment where Canadian firms are already significantly engaged — and payoffs are likely to be greatest. Then businesses can expand opportunities, both in the US and in other regions. However, removing remaining barriers to Canada-US trade must remain the top priority for Ottawa, since trade volumes with the US will continue to represent the majority of Canadian trade.

## *The Author of This Issue*

*Danielle Goldfarb* is Senior Policy Analyst at the C.D. Howe Institute.

\* \* \* \* \*

*C.D. Howe Institute Commentary*® is a periodic analysis of, and commentary on, current public policy issues. James Fleming edited the manuscript; Diane King prepared it for publication. As with all Institute publications, the views expressed here are those of the author and do not necessarily reflect the opinions of the Institute's members or Board of Directors. Quotation with appropriate credit is permissible.

To order this publication please contact: Renouf Publishing Company Limited, 5369 Canotek Road, Ottawa, Ontario K1J 9J3; or the C.D. Howe Institute, 67 Yonge St., Suite 300, Toronto, Ontario M5E 1J8. The full text of this publication is also available on the Institute's website at [www.cdhowe.org](http://www.cdhowe.org).

\$12.00; ISBN 0-88806-690-2

ISSN 0824-8001 (print); ISSN 1703-0765 (online)

The hoary question of Canadian trade policy is alive and well; and the answer apparently eludes us still. Should Canada diversify its trade away from the United States to reduce this country's dependence on that market? Does that dependence make Canada politically and economically vulnerable? In recent years, policymakers have discussed "the need to diversify Canada's trade" on Parliament Hill (Standing Senate Committee on Foreign Affairs 2003). Pundits, including several potential Liberal Party leaders (e.g., Ignatieff 2006), have opined in the media about the need to reduce economic dependence on the US. The federal Conservative party's 2004 election platform aimed to diversify both export products and markets, while the party's most recent election platform avoided the term diversification and emphasized "the need to establish trading relationships beyond North America."

There are both political and economic motivations in the desire to diversify trade. Some commentators worry that economic dependence on the US will require Canada to adopt US positions, such as those on marijuana, management of forest resources, and international operations including the war in Iraq. Others are concerned that economic dependence on the US puts Canada in a "vulnerable position...regarding possible US security and trade actions" (Standing Senate Committee on Foreign Affairs 2003). Still others have a more general concern that too much trade with one partner leaves the country economically vulnerable. This paper attempts to more systematically evaluate concerns that the current share of Canada's trade that takes place with the US makes it economically vulnerable. Policymakers evaluating policy options aimed at diversifying trade, including political dimensions, will then have a better understanding of any economic tradeoffs involved.

Since geographic diversification is the main public preoccupation, this paper focuses on that concern, but also briefly addresses the related questions of diversification by sector and within the US. Proposals for geographic diversification tend to lack specific details but they generally refer to reducing Canada-US trade as a proportion of Canada's total trade. Also, public concern tends to focus on export concentration, with a lesser concern about the majority of Canadian imports being from the US. The paper accordingly concentrates on exports with some brief discussion of imports and investment. These are important parts of the same picture, especially with production increasingly fragmented across international borders.

The paper first examines what is meant by diversification, and the reasons why commentators raise it as a goal. Then, the paper examines why growth in trade is important, what has determined Canada's trade patterns to date, and the extent to which Canadian trade and investment are actually concentrated on the United States. The study then assesses whether the current state of affairs is problematic from an economic point of view. I use a rough analogy between risk

---

I would like to thank Wendy Dobson, Yvan Guillemette, Rick Harris, David Laidler, Finn Poschmann, Bill Robson, Gary Sawchuk and Aaron Sydor for comments on a previous draft of this paper. I am grateful to Bill Robson for the idea of applying investment portfolio analysis to the question of trade diversification.

and return in investment portfolios and volatility and export growth in a country's export portfolio to determine whether Canada's export mix — with sales concentrated in the US market — places the country at significant risk or presents a significant economic problem.

The findings should allay fears about Canada's current geographic trade mix. The conclusions include the following:

*1/ While official statistics show that 85 percent of Canadian goods exports go to the US, and Canadian trade is and will continue to be primarily concentrated in the US market, Canada's economic links are more diversified than widely understood.*

- Trade with the US as a share of Canada's total trade has been declining in recent years, and official statistics understate Canada's trade outside the US, while overstating trade with the US.
- Canada's exports are already well diversified across US regions, and those regions' import behaviour is not identical, so growth in one may offset a downturn in another.
- To the extent that Canadian exports are used as inputs into US exports to the world, they are driven by global, and hence more geographically diversified demand.

*2/ Canada's geographic export concentration on the US does not appear to be associated with either greater export or income volatility. Canada's experience over the last 10 to 15 years has put the country in a relatively good position, with exports to the US generally offering the desirable combination of moderate export growth and low volatility, relative to other export markets.*

*3/ The analysis shows that a policy of reducing Canada's trade with the US relative to other trading partners — if effective — would not necessarily make Canada better off and might instead significantly increase volatility without proportionate trade growth.*

*4/ Finally, the efficacy of government efforts to change trade patterns is questionable. Individuals, rather than governments, determine economy-wide trade patterns. This, combined with the fact that geographic proximity drives most trade and that much of what Canada makes is not easily traded outside its immediate neighbourhood, is why past efforts to change trade patterns have failed. As risks and opportunities rise over time in non-US markets, businesses will adjust and take advantage of those opportunities.*

There are significant policy implications. Instead of trying to change trading and investment decisions made by Canadian businesses and individuals, Ottawa should turn its attention to providing market information not easily accessible to businesses, and addressing barriers to trade and investment where Canadian firms are already significantly engaged and payoffs are likely to be greatest. Then businesses can expand opportunities, both in the US and in other regions. The inescapable reality is that Canada's trade is and will be concentrated in the US market for the foreseeable future. The top priority of policymakers must be mitigating risks within the Canada-US economic relationship.

---

---

## **What Do We Mean by Diversification and Why Consider Pursuing It?**

The main reason to diversify is, in simple terms, to reduce the risk of having all of one's eggs in the same basket. According to modern portfolio theory, diversifying one's portfolio of stocks helps spread risks between countries, currencies and markets. Moving from a concentrated portfolio to a diversified one can produce the same returns for less risk. The key to reducing risks for the same return is that the more diversified portfolio contains assets that do not behave exactly alike, and so when one falls, another can offset it.

Though the analogy is imperfect, one can apply this same reasoning to a country's export portfolio. An export mix that is diversified across regions in which imports do not follow exactly the same path could result in lower volatility for a given rate of growth, compared with a concentrated export mix. It seems reasonable to assume that, all else equal, less volatility is better than more, as it allows businesses to plan and not get caught unprepared when exports fluctuate significantly in either direction. Later in the paper, I investigate whether moving from the current trade mix to one that depends less on the US market is likely to actually reduce volatility while achieving comparable export growth.

## **Why Care About Growth in Trade and What Determines Trade Patterns?**

Before investigating whether Canada's current trade mix is problematic, it is useful to briefly consider why trade is important, why Canada's trade patterns are what they are, and why, assuming it were desirable, it would be difficult to change them.

Canadian policymakers should view trade not as an end but as a means for achieving key national economic objectives, such as enhancing Canadian living standards. The boost to trade under the Canada-US Free Trade Agreement greatly enhanced Canadian labour productivity beyond what it would have been, which translated into higher living standards (Trefler 2004). Exports significantly increase the growth potential of a small economy like Canada's, and imports also advance Canadian prosperity. Though import growth may displace some Canadian sales, imports of machinery and equipment can be productivity enhancing. Imports that are used as inputs into goods that are later sold or exported also improve the competitiveness of Canadian companies, and imports increase competition and result in lower prices for consumers. Government may also view mitigating export volatility as an important additional economic objective, insofar as export volatility may affect income volatility.

There are several theories about what determines trading patterns. According to David Ricardo's model of trade, countries specialize in exporting goods and services in which they have a comparative advantage and import those in which other countries have a comparative advantage. An alternative theory, the Heckscher-Ohlin model, proposes that countries' relative capital and labour endowments determine what they trade. According to this theory, countries export

---

products that use their abundant endowments intensively and import those that use their scarce factors intensively.

On the more empirical side, the gravity model of trade shows that the distance between two countries is a major determinant of trading patterns. It predicts that two-country trade will be directly proportional to the size of the economies and inversely proportional to the distance between them. This model describes trading patterns fairly accurately.<sup>1</sup> This explains why Canadian exports tend to be sold primarily in the US.

Presumably, with companies and individuals each determining their most appropriate geographic and sectoral trade mix, the overall market allocates resources to their most efficient uses.

Canadian businesses overwhelmingly trade with the US but are growing their trade elsewhere at a faster rate. This mix reflects individual assessments of risks and payoffs. Businesses may see high potential trade growth in countries like China and may be willing to bear the costs of more uncertainty, different cultures and institutions, and political and economic risk. At the same time, Canadian businesses view the US as low risk, with short trading distances between markets, shared time zones, similar institutions and cultures, and the same language, for the most part. They also see potential for significant reward in the world's largest economy with a solid record of economic growth and considerable purchasing power. Further, Canadian businesses enjoy tariff-free access under NAFTA and have restructured to keep inventories, and therefore costs, low.

Another important reason for the observed concentration in the US includes the types of goods Canadians trade. Canada's top exports are in transportation equipment and other manufacturing, energy and other commodities. The auto sector and other manufactures depend on production that is highly integrated across the Canada-US border. The nature of energy trade is such that some types of energy must be close to market. Other potential reasons for concentration in the US include the limited number of Canadian multinational companies with the resources, experience, and size that allow them to take greater risks; rules of origin under NAFTA that create disincentives to buy inputs globally; and Canada's particular mix of industries that may not match up with demand from large, developing economies.

The next sections build on the discussion of what determines trade patterns and what motivates arguments for diversification by addressing several key questions. Is Canada's export mix as concentrated in the US market as is commonly supposed? Does concentration imply more export and income volatility than if Canada had a smaller share of its total trade with the U.S? Will a policy-driven attempt to reduce Canada's share of its total trade with the US make exports less volatile or risky and therefore make Canada better off? And is it even possible to change Canada's share of trade with the US? To make an economic case for policy-led geographic diversification, the answer to at least the last three of these must be yes.

---

1 Gravity models also find that trade intensities between Canadian provinces have been higher than between similarly close Canadian provinces and US states.

---

---

## To What Degree Are Canada's Economic Links Concentrated in the US?

I describe here the current state of affairs and determine to what degree Canadian economic links are in fact concentrated in the US. Table 1 shows, for the top 10 markets for the country's goods exports, the relative importance of Canadian trade and investment links with different countries, as recorded in official data.

As the first column shows, 84 percent of Canadian goods exports went to, or through, the US in 2005. While the Canada-US free trade agreement is commonly cited as a main reason for this concentration, the US was Canada's dominant export market long before that agreement. In fact, almost four-fifths of Canadian exports went to the US in the mid-1980s, prior to the agreement. According to official statistics, the next most important markets — Japan, the UK and China — each bought only about 2 percent of Canadian goods exports in 2005.<sup>2</sup> This order of top Canadian export recipients changed little over the past decade. The exception: exports to Mexico, which ranked fifth in 2005, up from 15th in 1995. Canadian exports to that country nearly tripled by 2005.

Official data likely overstate Canadian exports to, and imports from, the US, since goods that cross the Canada-US border at various stages of production are counted as a unique export or import each time they cross, so may be double- or triple-counted. To get a more accurate reading of the total value of exports, one would need to subtract out their import content. According to Statistics Canada's input-output division, in 2001 the import content of Canadian exports was just under one-third on average, ranging from a high of one-half for autos and parts to one-tenth for financial services. There is no breakdown of import content in exports by export destination, so there is no readily available adjustment one could make to the trade numbers to account for import content.

Also, export data may record as exports to the US those goods that are shipped through the US to final destinations outside of that country.<sup>3</sup> These caveats aside, official data on goods trade with the US are otherwise likely reasonably accurate since they are reconciled with US import data — and import data are generally more reliable than export data.

Exports to non-US destinations, by contrast, are likely understated and less accurate. Unlike exports to the US, they are not regularly reconciled with other countries' import data. Moreover, Statistics Canada compared customs trade data to transportation data and found that customs data under-covered 2005 exports to non-US destinations by a significant amount: one-fifth of the amount of Canadian exports outside of the US.<sup>4</sup> It is not clear exactly how this under-coverage breaks

---

2 For a deeper investigation of Canada's historical geographic trade breakdown, see Beaulieu and Emery (2006).

3 The Department of Foreign Affairs and International Trade (2003) estimated that these transshipments form roughly one percent of recorded exports to the US. This number seems low but there are no other available estimates of which this author is aware.

4 According to exchanges and phone conversations with Statistics Canada. Under-coverage is distinct from misallocations such as Canadian exports to China that travel through Hong Kong and are recorded as trade with Hong Kong.

---

**Table 1:** *Canadian Trade and Investment, Top 10 Goods Export Recipient Countries*

	Goods Trade			Services Trade		Direct Investment	
	Exports* to country	Imports from country	Average annual export change	Exports to country	Imports from country	Direct investment stock from country in Canada	Canadian direct investment stock in country
	<i>as share of Canadian total</i>			<i>percent</i>		<i>as share of total in Canada</i>	<i>as share of total Canadian direct investment abroad</i>
	2005		2000-2005	2003		Average 2000-2005	Average 2000-2005
United States	84	57	1	59	56	64	45
Japan	2	4	-1	2	4	3	2
United Kingdom	2	3	8	7	5	7	10
China	2	8	20	1	1	0.1	2
Mexico	1	4	12	1	1	0.1	1
Germany	1	3	-1	3	2	2	2
South Korea	1	1	4	1	0.4	0.1	0.2
France	1	0.3	5	2	2	9	2
Belgium	1	0.5	0	0.5	0.3	1	1
Netherlands	0.5	0.4	1	1	1	5	3
Average, all countries			1				

\*Export shares exclude re-exports; i.e., goods that leave Canada in the same condition as they entered.

Sources: Industry Canada Trade Data Online, Statistics Canada and author's calculations.

out by country.<sup>5</sup> The under-coverage estimate has, fortunately, fallen slightly in recent years, which Statistics Canada officials suspect is due to greater incentives to report customs information more accurately and earlier in order to clear customs faster.

Exports of Canadian goods are becoming less concentrated on the US market over time, as exports to countries other than the US are growing more rapidly. Table 1's third column shows that exports to China, Mexico and the UK grew by an annual average (during the period 2000 to 2005) of 20, 12, and 8 percent, respectively. Box 1 describes the areas of fastest growth for Canadian exports to, and imports from, China, in particular, and illustrates that trade with China can also increase trade gains with the US.

As a result of rapid Canadian export growth outside of the US, exports of goods and services to the US as a share of total Canadian exports have fallen in recent years. Figure 1 shows how the share of exports going to the US rose from 71 percent in 1989, the year the Canada-US Free Trade Agreement was signed, to 81

5 Some of the discrepancy is likely due to trade with Mexico. In 2005, Mexico's recorded imports from Canada were \$4.2 billion higher than Canada's recorded exports to Mexico. Canada's recorded imports from Mexico were \$9.5 billion higher than recorded Mexican exports to Canada. The difference is due both to undercoverage and misallocations to other countries (DFAIT 2006).

**Box 1:** *Canada-China Trade*

Which industries are fueling the rapid growth in Canadian exports to China, albeit from a low base? According to Grunau (2006),\* manufactures do not make up an important, or rapidly growing, share of Chinese imports from Canada, since Canadian firms do not specialize in manufacturing machinery or the kinds of components that Chinese factories assemble into finished products. The same study showed that Canadian exports to China of organic chemicals — particularly ethylene glycol used to make polyester — have grown fastest over the 1998-2004 period. The Chinese demand reflects a more than doubling of Chinese apparel exports since Canada, the US and others eliminated apparel quotas at the beginning of 2005.

The study also showed that natural resource sales — particularly of iron ore and nickel, which are inputs for steel production — are also key contributors to the rapid growth in Chinese imports from Canada, while wood pulp is Canada's leading export product. Growing Chinese demand for raw materials has also raised global commodity prices, leading to a much larger gain in the value of exports to the US than in the value of exports to China and elsewhere. Despite significant percentage increases in Chinese imports from Canada, China's imports of Canadian goods only accounted for one percent of China's total imports (Grunau 2006), and Canada's exports to China less than two percent of Canadian exports.

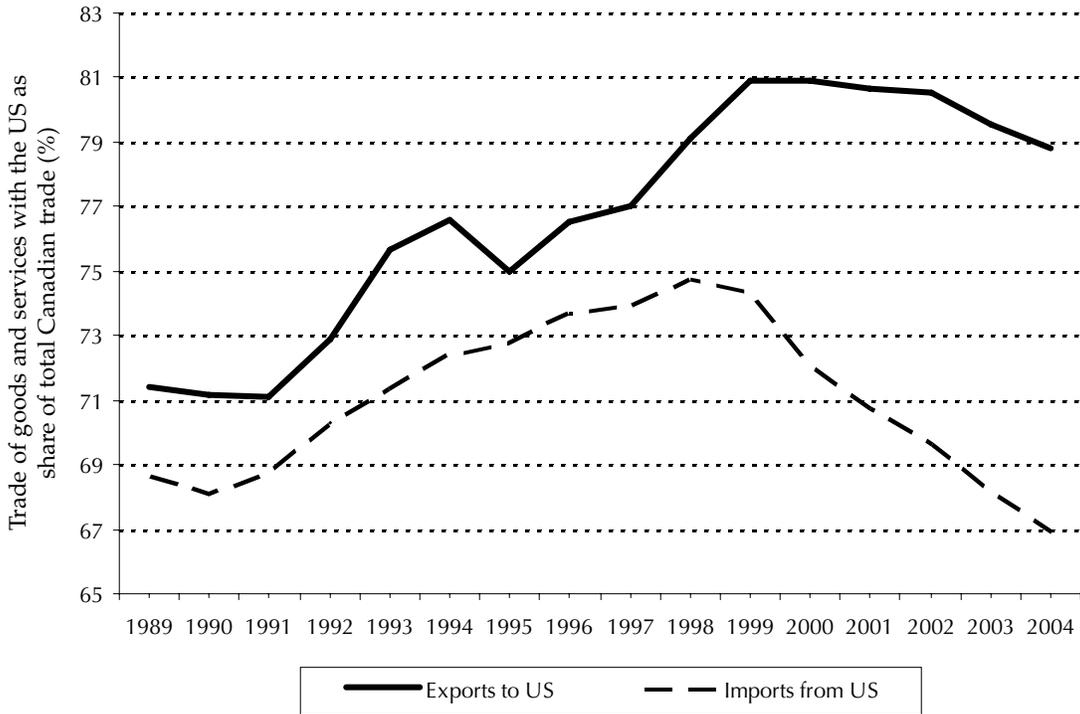
Turning to imports, Canadian imports from China have grown significantly in recent years. Whereas toys and games dominated imports from China in the 1990s, in 2005, machinery and equipment — mostly computer, audio and video equipment — made up the largest share of Canadian imports from China. The fastest growing of Canada's top 20 imports from China over the 2001-2005 period were computer equipment, audio and video equipment, semiconductor and component manufacturing, and wireless communications equipment. Official statistics on Canadian imports from China likely overstate China's importance in Canadian imports relative to its Asian neighbours, since China assembles parts manufactured in the rest of Asia and then exports final products. The growth of imports from China embodies a large content from the rest of Asia (Roy 2006).

\* This study used data from the UN Comtrade database on Chinese imports from Canada rather than Statistics Canada data on Canadian exports to China. Import data are generally more reliable than export data. Further, Canadian exports to China are understated in Canadian statistics, on average, at 30 percent lower than Chinese imports from Canada. This is mostly due to Canadian exports that go through Hong Kong and then to China but are recorded as exports to Hong Kong

percent a decade later, following a period of significant Canada-US economic integration, and has been on a slightly declining trend since.

Possible reasons for a decline in Canada's trade share with the US include: increased competition from other countries in the US marketplace (Sawchuk and Yerger 2005); new border security requirements after the terrorist attacks of September 11, 2001; a large rise in the value of the Canadian dollar relative to the US dollar in recent years; a slowdown in the US market relative to rapid economic growth in large developing economies such as China; and declines in transportation and communications costs that make it attractive to trade intermediate inputs and services globally.<sup>6</sup> The increase in the share of non-US trade also reflects increased global demand for Canadian commodity exports,

<sup>6</sup> It is possible that the US signing of bilateral free trade agreements that erode Canada's preferential access in the US market may be a factor in the future though so far completed agreements are with mostly minor economies that, unlike Canada and Mexico, are geographically distant from the US.

**Figure 1:** *Canadian Trade with US as Share of Total Canadian Trade*

Source: Statistics Canada.

which increased by almost 60 percent over 2001–2005, and by almost 90 percent when US exports are excluded. Manufacturing exports to non-US destinations also increased by about one quarter, compared with a decrease of 2 percent to the US over 2001–2005.

While goods exports are still highly concentrated in the US, services exports are less so (Table 1). According to Statistics Canada data, in 2003 Canada sold over 20 percent of services exports to Europe, and over 8 percent to Asia in 2003. Services represent about 12 percent of overall exports, but are likely underrepresented in traditional trade statistics.

Most sales by Canadian affiliated companies abroad also take place in the US, but much less so than for straight Canadian goods exports. In 2004, the most recent year for which data are available, roughly 40 percent of Canadian affiliate sales of goods and services took place outside of the US, a rise of five percent over the 2000–2004 period.<sup>7</sup>

<sup>7</sup> Sales abroad by Canadian foreign affiliates are not captured in the traditional export data discussed above, but are recorded in a special Statistics Canada series on foreign affiliate trade statistics. This helps give a more complete picture of trade. Affiliate sales are particularly important for services, since services represent over a third of Canadian affiliate sales, much higher than their around one-tenth share of total trade measured by traditional trade statistics. Traditional data on services exports do not include services traded through companies that set up a commercial presence abroad. Unfortunately the data are not fine grained enough to specify by sector which countries account for most of the foreign affiliate sales outside of the US, nor does Statistics Canada collect parallel data on foreign affiliate sales in Canada that would provide a fuller picture on the import side.

Moving to imports, the share of Canadian goods bought from the US is much less than the share of Canadian exports sold in the US. As Table 1 shows, imports from China made up about 8 percent of Canadian imports in 2005, up significantly from 6 percent in 2004. For services, just over half of Canadian imports came from the US in 2003, with roughly 20 percent from Europe and 10 percent from Asia.

Canadian imports are being bought increasingly outside of the US, with the import share from the US declining far faster than the Canadian export share to the US. As Figure 1 shows, almost 70 percent of Canadian imports came from the US in 1989. The share peaked at 75 percent a decade later as the Canadian economy became increasingly integrated with the US, and fell to 67 percent by 2004. Most of that decrease was due to a significant increase in imports from China. There is also a trend for Canadian businesses to increasingly import intermediate inputs of machinery and equipment from outside of the US (Khondaker 2005). For example, Canada imported over \$400 million in gas engine and engine parts from China in 2005, increasing from under \$3 million in 2001.

Canada is also much less concentrated in the US market when viewed in the larger context of overall Canadian production, rather than using the narrower measure of trade. Only about 10 percent of Canadian services production in 2004 was not consumed in Canada, of which about half was exported to the US. For manufacturing, Canadians exported about half of the goods produced in Canada in 2004 to the US, consumed about 35 percent and sent the rest to other countries.<sup>8</sup> Naturally, imports from the US also make up a much smaller share of total Canadian consumption than of total Canadian imports.

Further, as a result of the global fragmentation of production, Canadian trade may be more diversified than the straight export and import statistics indicate. If more Canadian goods are used as inputs into US or another country's exports, and those exports are in turn driven by global — and geographically diversified — market demand that is not perfectly correlated between countries, then the overall risk may be lower even when the US is the export recipient. Overall risk is likely to fall further as globalization of production for services increases.

Inward and outward direct investment — which many studies have found to be complementary to trade (see Hejazi 2004 for a summary) — is also concentrated in the US market but, again, less so than exports, as Table 1 shows. Just under two-thirds of the stock of inward direct investment in Canada was from the US, with large shares from Europe over the 2000–2005 period.<sup>9</sup> When Canadians made direct investments abroad, over the same period, less than half were in the US. About 10 percent went to the UK, and much of the rest to tax havens such as Bermuda, Barbados, Ireland and the Netherlands.

The stock of Canadian direct investment outside of the US also appears to be growing faster than that within the US. While such investment in the US increased by about 50 percent from the 1997–2000 average to the 2001–2004 average, the stock of investment outside of the US grew by almost 70 percent. Financial services

---

8 I calculate shares for manufacturing using Statistics Canada data on shipments and exports. Readers should interpret them with a grain of salt since the numerator and denominator come from different surveys.

9 For FDI calculations I use an average over several years to account for the lumpy nature of such investments.

investment is by far the largest category of Canadian direct investment abroad, and represents 43 percent of such investment outside of the US,<sup>10</sup> versus 35 percent in the US. Much of the former is aimed at tax avoidance. About four-fifths of Canadian companies that already have a presence in Asia intend to increase their investment in Asia over the next five years, according to a 2006 Asia-Pacific Foundation survey.

What is the sectoral makeup of trade? Transportation equipment was the top Canadian export in 2005, followed by oil and gas. Canada's comparative advantage remains in commodity intensive sectors (Beaulieu and Emery 2006), with the share of natural resources in exports increasing and dominating exports to most of Canada's main trading partners (Roy 2006), bolstered by high energy prices. Chemical, paper, metal, wood and machinery manufacturing are the next largest Canadian goods exports.

Looking forward, if present trends continue, by 2010 official trade statistics will show trade with the US representing three-quarters of Canadian exports and three-fifths of Canadian imports. Due to over-coverage of exports to the US and under-coverage to non-US destinations, the shares to the US will, in reality, be lower. So while Canada's share of trade with other markets is rising gradually over time, Canada's trade will still be concentrated in the US market for the foreseeable future. Concentration in the US is much less significant for imports, services, foreign affiliate sales and investment. It is also much less important both in a broader context that considers Canada's domestic market as its primary market, as well as when the demand for US exports that use Canadian inputs is globally diversified.

## **Is There a Problem?**

Is this current state of affairs problematic from an economic point of view? Does it pose risks that are not appropriately compensated for with sufficiently high trade growth? Do a series of individual trade decisions made by Canadians add up to an economy-wide result that is less geographically diversified and more volatile than it ought to be? I start with a general discussion about the degree to which trade disputes, border security, and US economic downturns pose unacceptable risks. I then provide a more systematic description of Canada's trade mix that assesses tradeoffs between volatility and trade.

### *Do Security, Trade Disputes, and US Downturns Pose Significant Economic Risks?*

The Standing Senate Committee on Foreign Affairs (2003) said that Canada's dependence on the US market makes it vulnerable to trade and security actions. Others argue that concentration in the US market makes Canada's economy vulnerable during an economic downturn.

---

10 Data are not available for most countries individually so it is difficult to tell exactly which type of direct investment is going where.

---

Trade disputes are certainly important to specific sectors — mainly natural resources — and regions and receive significant media attention. Nevertheless, they do not appear to represent a significant risk to overall Canadian trade with the US. Recent bilateral trade disputes affect only a small share of overall Canadian exports to the US. American purchases of Canadian softwood lumber, for example, account for less than 3 percent of Canadian exports to the US, and Canada has continued to export large volumes of lumber over recent years despite the ongoing dispute. In fact, since NAFTA's creation, Canada has been subject to far fewer trade penalty investigations and orders by the US relative to trade volume than have other countries (Macrory 2002). This is likely because it is counterproductive to start cross-border trade disputes when production is highly integrated cross-border. Furthermore, Canadian businesses risk trade disputes in their non-US trade as well, so trading elsewhere will not eliminate this problem.

Moreover, risks of disputes and their associated uncertainty are presumably captured in stock prices. If markets are efficient, and capture these risks, individuals and companies can factor them into their decision making so they are already incorporated into the economy-wide result. There is some evidence to suggest that markets are efficient in incorporating the risk of these disputes. One study on the Canada-US softwood lumber dispute finds that markets do factor in trade actions in that sector and negatively discount stock prices of forest products companies based on these possibilities (Zhang and Hussain 2004).

The risk of a decline in Canada-US trade in the event of a US economic downturn seems a reasonable concern. As I will expand on later, however, Canada is well diversified by region in the US market. While there are national risks that apply to all Canadian exports to the US, local or state risks differ between regions, so that overall trade risks are lower than they would be if Canada exported only to one US region. Further, while US regions' imports from Canada<sup>11</sup> have tended to be correlated with each other over the past decade, their correlation is not perfect, as Table 2 shows. This means that Canadian exporters may be able to partially offset a slowdown in one US region with growth in another.

Further, a downturn in the US cannot necessarily be largely offset by diversification. The effects of a US recession usually spread globally, and the path of imports over time is highly correlated across countries. Table 3 shows the almost perfect correlations between the import performances of Canada's main trading partners over the past 15 years. In particular, natural resource demand is global. When demand from one region falls, demand in other regions tends to fall as well, as Beaulieu and Emery (2006) note. Therefore, diversifying geographically is unlikely to do anything more than slightly offset any US downturn, and it is not clear that such a strategy will make Canada better off than being diversified across

---

11 I would ideally like to examine correlations between US regional imports from all countries, rather than just imports from Canada, in order to consider potential import demand. Unfortunately, the US government does not publish data on total US imports by state, deeming them to be too unreliable since the state recorded as destination may not be the actual final destination. Canada, does, however, publish data on Canadian exports — in other words, US imports from Canada — by US state. These data should be interpreted with caution as the state may not be final destination.

**Table 2:** *Cross-region Correlations of US Imports from Canada, 1996–2005*

	Far West	Great Lakes	Mideast	New England	Plains	Rocky Mountain	Southeast	Southwest
Far West		0.97	0.79	0.93	0.91	0.89	0.98	0.95
Great Lakes	0.97		0.74	0.92	0.93	0.91	0.97	0.97
Mideast	0.79	0.74		0.68	0.62	0.57	0.81	0.69
New England	0.93	0.92	0.68		0.98	0.96	0.95	0.93
Plains	0.91	0.93	0.62	0.98		0.99	0.95	0.90
Rocky Mountain	0.89	0.91	0.57	0.96	0.99		0.93	0.89
Southeast	0.98	0.97	0.81	0.95	0.95	0.93		0.93
Southwest	0.95	0.97	0.69	0.93	0.90	0.89	0.93	

Notes: A value of one is a perfect correlation. The regional groupings are Industry Canada's. Not all states are included. Industry Canada has an "other" category that I do not include here as it is not based in one region.

Source: Author's calculations from Industry Canada Trade Data Online.

**Table 3:** *Cross-country Correlations of World Imports for Top Canadian Export Recipients, 1990–2005*

	Canada	US	Japan	UK	China	Mexico	Germany
Canada		0.99	0.93	0.98	0.91	0.98	0.92
US	0.99		0.93	0.98	0.93	0.99	0.93
Japan	0.93	0.93		0.94	0.92	0.87	0.94
UK	0.98	0.98	0.94		0.95	0.94	1.00
China	0.91	0.93	0.92	0.95		0.88	0.97
Mexico	0.98	0.99	0.87	0.94	0.88		0.86
Germany	0.92	0.93	0.94	0.97	0.97	0.86	

Note: A value of one is a perfect correlation.

Source: Author's calculations from WTO Statistics Database.

US regions already does. In any case, Canadian companies will naturally adjust to a US downturn by trading more outside of the US, or in different US regions.

Turning to security matters, potential US border security actions could present real risks to cross-border economic activity. They may create uncertainty at the border, which is likely to worsen in the event of another terrorist attack in North America. Lack of predictability could negatively affect cross-border trade and also investment in Canada to serve the North American market, diminishing Canadian prosperity. A new passport requirement for all entrants to the US may make border crossing more difficult for people and possibly affect services trade.

Still, the US has, in absolute terms, significant trade interests with Canada, meaning that the US is unlikely to completely stop trade. The Canadian and US governments are also attempting to mitigate this risk through programs to fast-track low-risk goods and individuals. And the opportunities in the US are so significant that the high trade volumes may justify the potential risk. Certainly,

diminishing trade with the US simply to avoid future security problems would greatly diminish Canadian prosperity. As well, as with trade disputes, the stock market is likely to factor in these border risks, so they should already be reflected in the overall economy result.

### *Does Canada's Export Mix — with its Concentration of Exports in the US — Result in Too Much Volatility?*

To more systematically describe the current trade mix and consider if it is problematic or too volatile, I take the concept of return versus risk in investment portfolios and apply it to country trade portfolios.<sup>12</sup> In investment portfolios there is a tradeoff between risk and return, and individuals decide on their own best mix of risk and return. As discussed above, the theory is that a diversified portfolio can lower risk for similar rewards as a concentrated one as long as the stocks in the portfolio do not move perfectly in sync.

Applying this framework to a country's trade mix, I use export growth and export value as measures of return and export volatility as a measure of risk. Building on earlier discussion, countries presumably would be best off with an outcome that maximizes export growth as a contributor to higher living standards while minimizing export volatility and any other trade risks.

As exports increase, and a country becomes wealthier, an increase in exports may be less valuable than a proportional reduction in volatility. In that case, if further geographic diversification of Canadian trade reduces volatility while maintaining or only slightly decreasing trade, then such diversification could improve economic welfare.

The analogy of a country's trade profile to an individual's investment portfolio is admittedly imperfect because a country's trade mix is based on many individual risk-return calculations and determined on the basis of a country's comparative advantage. One should not therefore view this framework as providing a definitive answer about Canada's optimal geographic export mix. Instead, it is a starting point to describe and assess the tradeoffs between trade growth and its volatility and identify whether there is a serious problem with Canada's export mix that requires further investigation.

## **Canada's Export Experience Compared with other Countries**

I start by looking at the experience of individual OECD countries over the last 15 years, excluding a few OECD countries for which data are incomplete. Developed economies are likely to have more similar industrial structures to Canada than do developing countries, so they make better comparators here.

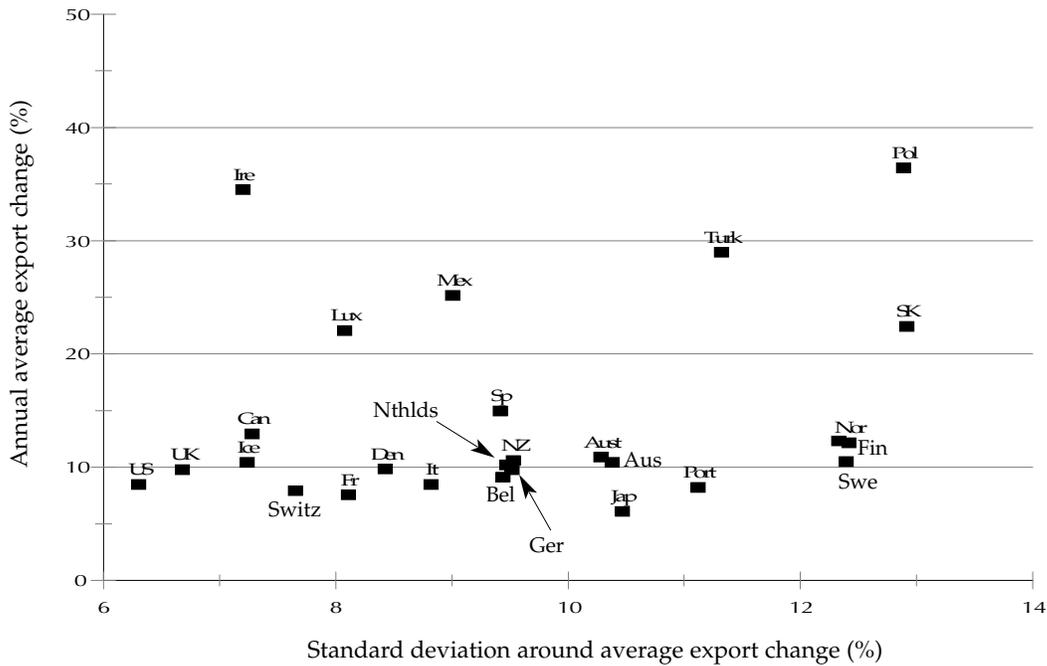
To capture overall export performance, I start by calculating the annual average export growth for goods and services over the 1991–2005 period.<sup>13</sup> As one

---

12 In the same way that investors consider domestic content part of their stock portfolio, a more complete analysis of the risk and return in a country's economic portfolio would include domestic sales of Canadian production in addition to trade.

13 I use nominal values.

**Figure 2:** *Export Change versus Standard Deviation, OECD Countries, 1991–2005*



Source: Author’s calculations based on data from OECD (2005).

Note: For readability’s sake, I exclude Hungary which has both the highest annual average export change and the highest standard deviation around that change.

Legend:	Abbreviation	Country	Abbreviation	Country	Abbreviation	Country
	Aust	Australia	Ice	Iceland	SK	South Korea
	Aus	Austria	It	Italy	Sp	Spain
	Bel	Belgium	Jap	Japan	Swe	Sweden
	Can	Canada	Lux	Luxembourg	Switz	Switzerland
	C.Rep	Czech Republic	Mex	Mexico	Turk	Turkey
	Den	Denmark	Nthlds	Netherlands	UK	United Kingdom
	Fin	Finland	NZ	New Zealand	US	United States
	Ger	Germany	Nor	Norway		
	Gree	Greece	Pol	Poland		
	Hung	Hungary	Port	Portugal		

possible proxy for risk, I calculate the standard deviation of the export growth measure around its average. Such a measure should capture the risks of a decline in exports due to trade penalties and border security measures, if such measures do indeed lead to increased volatility.

Figure 2 shows the results, with average annual export change on the vertical axis and the standard deviation of export changes from the average on the horizontal axis.

The Figure shows that Canada had average annual export growth of about 13 percent over the 1991-to-2005 period, close to the average of 15 percent for the OECD countries. Canada combined this with a much lower than average level of variability in that growth. In fact, Canada had the lowest volatility at that average

growth rate, and, except for Ireland, the highest growth rate for that level of volatility. A number of countries had higher growth than Canada's but also had much higher volatility, and the UK and US had lower volatility but also lower export growth. According to these metrics, therefore, Canada already has a relatively low level of export volatility, even with a significant share of its exports going to the US. If changing the export mix could have somehow reduced volatility further, the experience of other countries suggests this would have required trading off some export growth.

To take into account export performance relative to the size of economies and relative to overall export value, I also look at two alternate measures: average export change as a share of total exports; and average export value as a share of GDP, both over the 1991-to-2005 period. For each, I take the standard deviation of each year's values relative to the average as a measure of volatility. By both metrics, Canada is either at a low, or moderate level of volatility relative to a low-to-moderate ranking on the export measure. Both export measures mapped against their standard deviations show a tradeoff between the greater role of export growth or export value and the greater volatility of that export measure. Trying to decrease Canadian volatility further from its already modest level would likely require a decline in exports relative to GDP. The metrics do not suggest Canada's current position is a major problem relative to its OECD counterparts.

Turning specifically to the question of export concentration in the US, is concentration associated with greater export volatility? Figure 3 shows each OECD country's standard deviation around its average export change for the 1991-to-2005 period on its vertical axis, plotted against an index of geographic export concentration for goods on the horizontal axis.<sup>14</sup> The higher the concentration index value, the more concentrated in a smaller number of countries is the country's goods export mix.

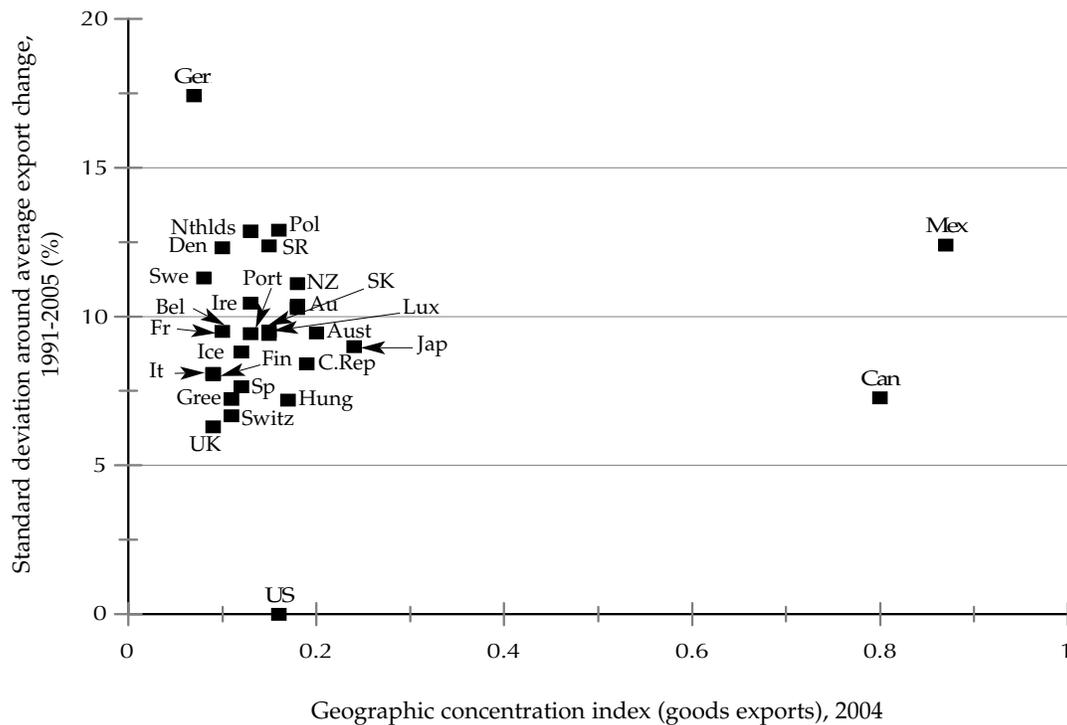
The figure shows that Canada is by far the most concentrated — with the exception of Mexico — of the OECD countries in the sample. Still, Canada ranked at the low end of the volatility scale, lower than most other countries in the sample, even with much higher geographic concentration. At the same time, during this period Canada had moderate-to-high average trade growth and a moderate share of exports to GDP, relative to the OECD countries.<sup>15</sup>

Presumably, the reason governments might care about export volatility is because they are ultimately concerned with income volatility.<sup>16</sup> Beaulieu and Emery (2006) find that Canada's export concentration in the US does not make the country worse off, in terms of either income or export volatility, than would be the

14 The index of concentration is a Herfindahl index calculated by the OECD, which computes the concentration for a particular country's goods exports as the sum of the squares of the market shares held in each country of destination.

15 As a check, I also looked at the concentration index against an alternate measure of volatility — the standard deviation around exports as a share of GDP — and the result looked much the same.

16 A measure related to income volatility would be the volatility of the employment content of trade. The problem with this measure, though, is that if one assumed a greater employment content of trade was better than a lower one, this measure would value labour-intensive trade over capital-intensive trade, and could lead to a policy focus on labour-intensive industries when other industries may have higher productivity growth.

**Figure 3:** *Export Volatility versus Export Concentration, OECD Countries*

Source: OECD; author's calculations. See Legend attached to Figure 2.

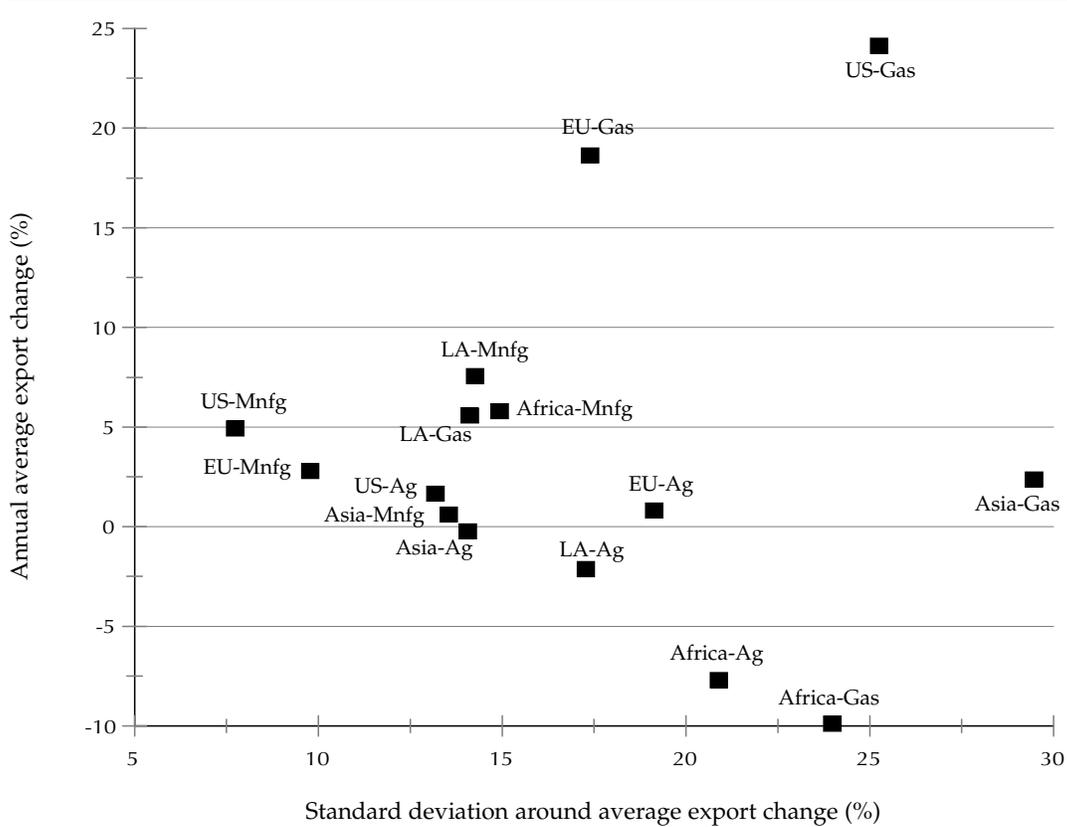
case with a more diversified export orientation. They compare Australian and Canadian export and income volatility since the Second World War, and find that Canadian export dependence on the US did not make for greater export or income volatility than in Australia.

### *Canada's Export Mix by Major Geographic Area and Broad Industry Grouping*

I now look more closely at Canadian exports by region and sector, to assess whether the country has a problematic export mix, either geographically or sectorally. Export breakdowns by industry and country together are only readily available for the most recent 10 years, so I examine Canadian export experience from 1996 to 2005. I separate Canadian exports into five regions — the US, Latin America (including Mexico), Asia, Africa and the European Union. The regions do not cover all countries, but they cover most Canadian trade. I further separate out trade into three industry categories at the North American Industrial Classification System (NAICS) 2-digit level<sup>17</sup> — agriculture, forestry, fishing and hunting;

<sup>17</sup> Note that the three NAICS categories are not of comparable size. I drop the fourth 2-digit NAICS goods category of utilities, as trade is negligible.

**Figure 4:** *Export Change versus Standard Deviation, Canadian Exports by Destination and Industry, 1996–2005*



Source: Author's calculations based on data from Industry Canada Trade Data Online.

Legend: Ag = agriculture, fishing, fishing and hunting

Gas = mining and oil and gas extraction

Mnfg = manufacturing

LA = Latin America

mining and oil and gas extraction; and manufacturing. Unfortunately, services trade data broken out along both sectoral and regional lines are not readily available, limiting possible conclusions from this analysis.

Following the same methodology as the previous section, I calculate the average export growth over the period and the standard deviation of that value. I exclude re-exports, i.e., goods that leave Canada in the same condition as they entered. Figure 4 shows the result, with annual average export growth on the vertical axis and the standard deviation of that growth on the horizontal axis. Each label lists the export destination followed by the industry.

According to Figure 4, Canadian mining and oil and gas exports to the US had the highest volatility of all groupings, but also the highest export growth over the period. Exports to Latin America had slightly lower volatility but significantly less growth, while exports to Asia had higher volatility and even lower growth than Latin America, and exports to Africa had slightly less volatility but abysmal growth. Trying to shift oil and gas exports away from the US towards other

destinations would have likely meant a significant decrease in export growth and would not necessarily have even decreased volatility.

With respect to agriculture, the figure shows that exports to the US had the highest average annual growth over the period and the lowest standard deviation of all other destinations. For manufacturing, exports to the US had higher growth and lower volatility than exports to Asia or Europe, and slightly less growth but much less volatility than exports to the Latin America and Africa. Overall, then, by these metrics, a focus on Canadian exports to the US put Canada in a relatively desirable position, both in terms of export growth and its volatility. Using export change as a share of exports to the country and the standard deviation of that measure leads to a relatively similar conclusion.

What about the sectoral allocation of Canada's export mix? Presumably Canada's comparative advantage in production, combined with foreign demand, determined the sectoral export mix, as it did the geographic mix. According to the mapping of Canadian exports in Figure 4, decreasing the relative share of exports of mining and oil and gas might have reduced volatility over the past decade, but at the expense of large returns in most regions. Manufacturing exports were relatively stable with strong trade growth for the most part. So it seems that trying to change Canada's sectoral mix of goods exports would not necessarily have made Canada better off and could have made the country worse off.<sup>18</sup>

All in all, this mapping exercise suggests that, over the past decade, Canadian exports to the US have been less volatile on average than have exports to most other regions. Where they have been more volatile, they have been accompanied by significant trade growth. Shifting exports away from the US over the past decade would likely have increased volatility and decreased trade growth, making Canada worse off, assuming all else was equal.

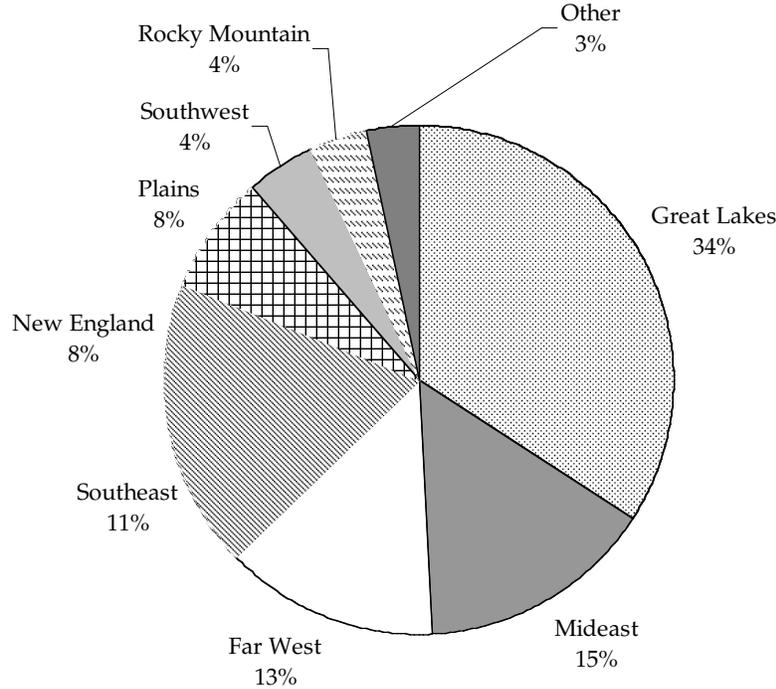
### *Canada's Export Mix by Major US regions*

Some worry that trade concentration "creates vulnerability, much the same as a company that makes most of its sales to a single buyer" (Winham and Ostry 2003). The US, however, is not a single buyer. Its economy is made up of more than 300 million individual consumers. Most state economies are larger than many other country economies and represent significant opportunities. In 2005, Canada had higher exports to each of 10 different states (Michigan, New York, Illinois, California, Ohio, Washington, Pennsylvania, Minnesota, Texas and Tennessee) than to the country of Japan, Canada's next largest export market.

Since Canadian trade is diversified across different US states and regions, the country may already have captured the risk-reducing benefits of diversification, especially since states' import behaviour is not perfectly in sync, as shown earlier

---

18 A study by Hausmann et al (2005) shows that Canada's sectoral mix of goods exports mix is likely to lead to high productivity and economic growth, with better performance than all natural resource exporting countries, assuming all other factors are constant. As well, over an earlier period, Canada also ranked highest on what Feenstra and Rose (1999) call export sophistication indices. In their study, goods exported to the US earliest were considered more sophisticated than goods exported later. Canada's proximity to the US likely accounts for the country's high ranking.

**Figure 5:** *Share of Canadian Exports to US by US Region, 2005*

Source: Author's calculations based on data from Industry Canada Trade Data Online.

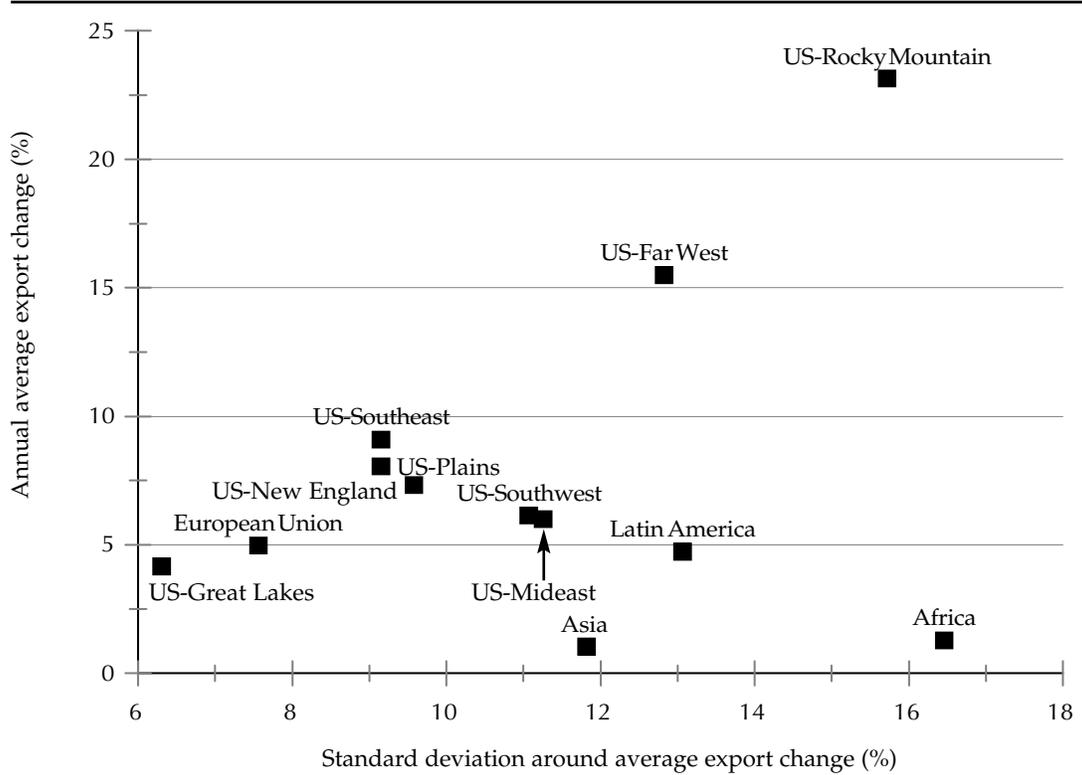
Note: The regional groupings are Industry Canada's and are not of equal economic size. Also note that one should exercise caution with these data since the region indicated may not be the final destination region.

in Table 3. Figure 5 illustrates that Canada's export presence in the US extends to all regions. The same is true for imports.

Turning to Canada's export mix by sector, absent a reason for Canada not to be pursuing trade in sectors in which it has a comparative advantage, one would have to assume that Canada's current sectoral export mix is optimal. Trade is somewhat diversified by sector but there is also some specialization. In 2004, over one-quarter of Canadian exports to the US were in transportation equipment, followed by oil and gas exports at 14 percent. Next were a number of manufactured goods (food, wood, paper, chemicals, petroleum, plastics, primary metal, computers and machinery) and services (commercial and tourism) that comprised between 3 and 6 percent of exports to the US. On the import side, one-quarter of imports were in transportation equipment, with commercial services, chemicals and machinery manufacturing representing roughly 10 percent each in 2004.

Canada's export and import concentration in the auto sector raises the question of whether there is a tradeoff between the benefits of lower volatility from diversifying and the benefits of export and income gains from specialization. Recall here that the decision to specialize is made at the company level, and the overall Canadian export mix with a specialization in the auto sector reflects those

**Figure 6:** *Export Change versus Standard Deviation, Canadian Exports by Country and US Region, 1996–2005*



Source: Author’s calculations from Industry Canada Trade Data Online.

many individual decisions. There are large gains from company specialization. As Trefler (2004) shows, removing Canada-US tariffs — a policy change that spurred plant specialization (Baldwin and Gu 2005) — led to a remarkable 6 percent increase in manufacturing productivity. Beaulieu and Emery (2006) argue that the benefits of specialization in production and trade flows have been realized in higher Canadian incomes and employment. These benefits can offset the increased risk associated with increased specialization. Put differently, a more diversified export mix by sector might mean large reductions in Canadian incomes and employment.

Moving to a closer look at the geographic breakdown of Canadian exports, Figure 6 maps another trade-volatility profile, this time grouping Canadian exports by destination, both for US regions and world regions over 1996-2005.

Over the period, Canadian exports to the US ranged from lower growth and low volatility for exports to the Great Lakes, to high growth and high volatility for exports to the Rocky Mountain region, with exports to most other US regions in the moderate growth, low-to-moderate volatility category. Exports to Latin America, Asia and Africa, on the other hand, had higher standard deviations than exports to almost all US regions, yet growth rates lower than almost all those US regions. Exports to the European Union had average growth higher than those to the Great Lakes, but slightly higher volatility. Using export change as a share of

export value yields a similar result — exports to the US ranked higher in terms of growth and lower on volatility than did other regions. By that metric, exports to the Great Lakes saw the same growth as exports to Asia but at a much lower volatility level. So a focus on Canadian exports to the US placed Canada in a relatively good position by these metrics. If Canada had forgone trade with any US region in favour of greater trade with another non-US region, its overall volatility would likely have risen, accompanied by a decrease in export growth, making Canada unambiguously worse off. Since, as Table 3 showed, exports across regions are correlated, but imperfectly so, diversified exports by region within the US should result in lower risk and similar returns than exports that are more concentrated in a particular region.

### *Alternative Risk Measures*

The export volatility metrics discussed above measure only a particular type of risk. One alternative is to look at country-risk ratings. These ratings are imperfect for assessing trade risk as they generally measure investor risk rather than exporter risk. They also do not take into account differences in risk specific to Canada; i.e., it seems less risky for Canadians to sell in the US market than it would be for, say, the Chinese, given that Canada and the US share a common language and similar institutions. Despite these caveats, such risk ratings can be helpful proxies for export risk, and may help explain why Canadians continue to export predominantly to the US.

As Table 4 shows, the US ranks low in terms of country risk, whereas countries like China are considered much higher risk. So a smaller share of trade outside of the US, rather than reflecting a geographic trade mix that is too risky, likely reflects to some degree the higher risks for Canadians outside of the US. Trying to change that export pattern by diversifying away from the US might therefore increase risk instead of decreasing it. This could only make Canada better off if it was accompanied by significant trade potential.

Risk assessments could, and very well might, change over time. This could, in turn, change individuals' calculations, and possibly lead to Canada having increased trade with rapidly growing emerging economies relative to trade with the US.

According to this mapping of trade expansion and volatility in recent history and comparison with Canada's OECD counterparts, Canada's export mix does not appear problematic in that it leads to greater export or income volatility. It may be that Canada's current export mix is already diversified to the point that it benefits from a lower overall level of volatility and similar export growth than a more concentrated mix. The evidence from the recent past suggests that further geographic diversification is unlikely to have made the country significantly better off, and it could have made it worse off by increasing volatility and reducing trade. All in all, this analysis does not reveal a major economic problem with the export mix of the recent past.

Of course this analysis hinges on the assumption that the past is a reasonable indicator of the future, and that the standard deviations of various export measures and country-risk indicators are reasonable proxies for risk. Export

**Table 4:** *Top 10 Canadian Export Recipients and Country-risk Rankings*

	Canadian goods export value, 2005 (\$ billions)	Country-risk rating, March 2006 (lower is less risky)
United States	343	4
Japan	9	16
United Kingdom	8	11
China	7	52
Mexico	3	49
Germany	3	17
South Korea	3	37
Belgium	2	13
France	2	18
Italy	2	22

Sources: Trade Data Online; *Euromoney* March 2006 country-risk rankings.

growth prospects in Asia may be higher over the next 10 years than they were for the previous 10, and volatility or risk outside of the US may decline over time.

### *Policy Implications*

There are several ways in which the share of Canada's exports going to the US could decline. This could happen if Canada's exports to the US:

1. fall and trade with other countries stays the same;
2. fall and trade with other countries also falls, but not by as much;
3. stay the same or rise, but by less than they rise with other countries;
4. fall and exports to other countries rise.

In terms of Canadian prosperity, what really matters is exports to all countries combined (a broader exposition would also include sales to Canadian consumers). So a proportionate decline in Canada-US trade that came about through either 1 or 2 would make Canada worse off, while option 3 would make the country better off, and alternative 4 could make it either better or worse off.

While an outcome like option 3 would be desirable, a policy-led effort for a blanket decrease in the share of Canada's exports flowing to the US could make the country worse off. And, according to the trade-volatility mapping exercise in previous sections, a policy-led effort to decrease the share of trade with the US in an effort to reduce volatility might in fact make exports more volatile and reduce both export and income growth.

It would also be counterproductive to try to diminish the proportion of trade with the US in order to avoid disputes in a small subset of that trade. There may also be unintended consequences of a directed attempt to reduce Canada's concentration in the US market. Such a push could serve to reduce trade in other markets as well if it is the case that experience in the US market is a precursor or requirement for trade elsewhere. For example, some Canadian exports to the US

**Box 2:** *The Third Option*

In 1972, under Prime Minister Pierre Trudeau, secretary of state for external affairs Mitchell Sharp set out three choices for conducting Canada-US relations: maintaining the Canada-US relationship as it existed, integrating more closely with the United States, or reducing Canada's vulnerability to the US by strengthening its self-reliance and seeking closer economic links elsewhere.

The government decided to pursue the third option. Ottawa negotiated a "contractual link" with the European Community (EC) in 1976, setting out general commitments for Canada and the EC to consult and establish working groups to examine the scope for investment and other cooperative ventures. As Hart (2002) notes, the agreement was largely symbolic because Canada already had access to the EC markets on the same terms as other countries and did not want better terms under a free trade agreement. Canada also signed a similar framework agreement with Japan, reportedly for geographic balance.

The agreements failed to change trading patterns, which, in fact, became even more entrenched. As former Canadian ambassador to the US Allan Gotlieb (2003) points out, whereas 65 percent of Canadian exports went to the US when the government announced "the third option," almost 80 percent of Canadian exports went to the US at the end of Trudeau's mandate. Historian Robert Bothwell (1977) described the third option as "an attempt to secure the triumph of politics over geography." Some commentators (e.g., Campbell 2003) have called for Canada to revisit this option to diversify economic relationships beyond the US.

depend on inputs imported from outside of the US. Restricting export success in the US might therefore limit future opportunities in the US and elsewhere. Moreover, a seamless North American economy will likely be an advantage in competing globally. Another unintended consequence of trying to decrease Canada's share of trade with the US is that it may increase dependence on natural resources that can be sold globally.

Turning to the sectoral mix of exports, a more diversified mix might mean large reductions in Canadian incomes and employment, because specialization in production and trade flows has resulted in higher Canadian incomes and employment. These benefits can offset the risk associated with increased specialization.

The last condition required to make a convincing economic case for policy-led geographic diversification is that policymakers can change trading patterns. Even if it were desirable to do so, governments have not been very successful at changing trade patterns, as became apparent under Pierre Trudeau's ill-fated "third option" during the 1970s (Box 2). Though conditions are different today with the rapid economic rise of countries like China and India, what has not changed is that i) Canada is next to the US; ii) businesses — not governments — ultimately make Canada's trade and investment decisions; and iii) Canada's major exports (oil, natural gas and highly integrated manufacturing) can not be easily sold outside of the US.

In any case, regardless of Ottawa's actions, businesses respond to market signals about risk and export opportunities and will adapt naturally to pursue new trade opportunities as these signals change. If the current rise in the Canada-US exchange rate is sustained, for example, this will create incentives to export

outside of the US. And new opportunities outside of the US may arise as services are increasingly tradable internationally.

Instead of worrying about reducing Canada's share of trade with the US, policymakers should focus on tools within their control. Given that trade with the US will continue to be responsible for the majority of Canada's trade, maintaining a smooth, predictable, border should be the top priority. Canada's ability to attract investment from the US and elsewhere on the basis of its access to the US market depends on low-cost and predictable border crossings. Policymakers should improve infrastructure at ports and borders, and ensure that border security takes into account the reality of the highly integrated cross-border space.

Beyond the US, removing trade and investment barriers in the multilateral arena will yield the biggest gains, but progress on that front has been glacial. Ottawa might in the interim aim to supply information about country markets that anticipate or respond to private sector needs,<sup>19</sup> and try and remove barriers to trading and investing abroad.

The focus of Ottawa's efforts should be on regions where Canadians are already engaged in notable economic activity and are therefore likely to do more of it in the future. Resources should not be devoted to negotiating bilateral free trade agreements with relatively minor trade partners as has been the case over the past decade, and any new free trade deals should consider the problems such proliferating deals create (see Goldfarb 2005 for a summary of these). The reunification of the ministry of foreign affairs with its international trade counterpart should enable a more coherent approach rather than the aimless approach of the last decade (also see Goldfarb 2005). Since Canadians' main customers are other Canadians, provincial governments should also remove remaining interprovincial barriers to trade in goods and services. Policymakers should also use tools that allow Canadians to better adapt to global changes. This means focusing more on education policies and less on trade penalties, continued tariff and non-tariff barriers, or outdated rules of origin, all of which may protect a small set of jobs in the short-term while in the long-run penalizing Canadians who must pay more for consumer goods. Ottawa should also work to improve the quality of its trade statistics, including increased coverage of foreign affiliate sales and services trade, and working to further reduce the underestimation of Canada exports to non-US destinations and the overestimation of Canadian exports to the US.

If governments would like to mitigate their citizens' income and employment volatility, Beaulieu and Emery (2006) note that employment insurance and other income-smoothing policies such as national or provincial stabilization funds are likely to be both more appropriate and more effective than trade policy.

In June 2006, Trade Minister David Emerson announced that Canada's international priorities should be: improving the Canada-US relationship, fostering more competitive North America and "reaching out to the most promising global markets, particularly in Asia" (DFAIT 2006). This represents a good start, providing it means concentrating on barriers to Canada-US trade first, not pursuing opportunities elsewhere at the expense of that relationship, and not

---

19 The government's trade and investment barriers database introduced in June 2006 is a good start.

---

attempting to change private sector decisions about where to trade and invest. Such a strategy is an improvement over the previous government's international policy statement that failed to adequately identify priorities.

## Conclusions

A number of commentators argue that Canada's dependence on the US market is risky or problematic. The solution, in their view, is to reduce the proportion of Canada's trade that takes place with the US. This paper is a modest beginning at more systematically assessing this issue from an economic point of view.

Canadian businesses and individuals overwhelmingly trade with, and invest in, the US market. This will not change for the foreseeable future. Canadian trade and investment is, however, less concentrated in the US market than is commonly cited, official statistics overstate the concentration, and the proportion of trade with the US market is declining over time as trade with other countries rises faster than trade with the US. Further, when Canada supplies inputs for US exports for which demand is more globally diversified, Canadian export markets are, in essence, more diversified across countries. As well, most Canadian production is consumed in Canada, so Canadian production is less concentrated in the US market than export statistics imply.

This study does not uncover any evidence of a significant economic problem with Canada's geographic export mix, either from a trade or stability perspective. In fact, Canadian exports to the US have been relatively stable, have lower overall risk relative to other markets, and have relatively high records of growth. Concentration has not been associated with greater export volatility. The benefit of diversifying trade is that, if imports in different countries or regions do not go up and down on a similar cycle, then diversifying can lower overall risk for the same trade or trade growth than a more concentrated trade mix. But Canada already benefits from diversifying its risk across US regions with imperfectly correlated import performance. And since import performance across top Canadian export destinations is fairly closely correlated, diversifying away from the US to these markets is unlikely to reduce overall risks in a significant way. If Canada had decreased its exposure to the US in the past, this may have increased volatility rather than decreased it, and possibly even reduced exports and income. Greater sectoral diversification would mean giving up the export and income gains from company specialization. Of course, as businesses reevaluate risk and opportunities over time, they may choose to further diversify their exports globally, and nothing in this analysis suggests that they should not.

The Trade Minister, like his predecessors, will no doubt face pressure to take action to reduce Canada's dependence on the US market. Though this study is neither exhaustive nor the final word, it shows that there is no compelling economic reason for the Minister to take action to reduce Canada's share of trade with the US. Those who advocate government-led geographic diversification must, at a minimum, show why the status quo is economically or otherwise problematic, explain convincingly why thousands of individual and company decisions do not result in the appropriate mix, and recognize that changing the

outcome could yield negative economic consequences in the form of an increase in volatility and reduction in trade.

Individuals and businesses — not governments — determine trade patterns. For now, businesses continue to solidify their economic links in the US, while growing them at a faster rate outside of the US as opportunities arise and relative risks fall.

Instead of trying to change trading and investment decisions made by Canadian businesses and individuals, Ottawa should turn its attention to providing market information not easily accessible to businesses, and addressing barriers to trade and investment where Canadian firms are already significantly engaged and payoffs are likely to be greatest. Then businesses can expand opportunities in the US and in other regions. However, removing remaining barriers to Canada-US trade must remain the top priority since trade volumes with the US will continue to represent the majority of Canadian trade.

---

---

## References

- Asia-Pacific Foundation of Canada. 2006. "2006 Asian Investment Intentions Survey." Vancouver. February.
- Baldwin, John, and Wulong Gu. 2005. *Responses to Trade Liberalization: Changes in Product Diversification in Foreign- and Domestic-controlled Plants*. Micro-economic Analysis Division. Statistics Canada. Ottawa.
- Bothwell, Robert. 1977. "The Canadian Connection: Canada and Europe", in Norman Hillmer and Garth Stevenson, *Foremost Nation: Canadian Foreign Policy and a Changing World*. 24-36.
- Campbell, Bruce. 2003. "From Deep Integration to Reclaiming Sovereignty: Managing Canada-US Economic Relations under NAFTA." Canadian Centre for Policy Alternatives. June.
- Chen, Duanjie, and Jack Mintz. 2003. "How Canada's Tax System Discourages Investment." C.D. Howe Institute Backgrounder 68. Toronto. January.
- Department of Foreign Affairs and International Trade. 2003 (DFAIT). "NAFTA@10 — A Preliminary Report." Ottawa.
- . 2006. "Seventh Annual Report on Canada's State of Trade: Trade Update." Ottawa. June.
- Feenstra, Robert C., and Andrew K. Rose. 1999. "Putting Things in Order: Trade Dynamics and Product Cycles." November 12. Accessed at: <http://faculty.haas.berkeley.edu/arose/fr2doc.ps.pdf>
- Goldfarb, Danielle. 2005. *US Bilateral Free Trade Accords: Why Canada Should Be Cautious About Going the Same Route*. C.D. Howe Institute Commentary 214. Toronto. August.
- Gotlieb, Allan. 2003. "A North American Community of Law." Speech to the Borderlines Conference at the Woodrow Wilson Centre for International Scholars. Washington, D.C. February.
- Grunau, Steve. 2006. "Feeding the Dragon: Canadian exporters and a booming China." Statistics Canada. Ottawa.
- Hart, Michael. 2002. *A Trading Nation: Canadian Trade Policy from Colonialism to Globalization*. UBC Press. Vancouver.
- Hausmann, Ricardo, Jason Hwang and Dani Rodrik. 2005. "What You Export Matters." Working paper 11905. National Bureau of Economic Research. Cambridge. December.
- Hejazi, Walid. 2004. "The Impact of Trade Agreements on Canada's Foreign Direct Investment Performance." Paper prepared for DFAIT NAFTA@10. July 14.
- Ignatieff, Michael. 2006. "Putting our House in Order." *Globe and Mail*. March 31.
- Khondaker, Jafar. 2005. "Key trends in Canada's international trade in machinery and transport equipment, 1980 to 2003." Analytical paper. Statistics Canada. Ottawa. June.
- Macrory, Patrick. 2002. *NAFTA Chapter 19: A Successful Experiment in International Trade Dispute Resolution*. C.D. Howe Institute Commentary. The Border Papers. Toronto. September.
- McFetridge, Donald G. 2004. "Evaluation of Current Policy towards Inbound FDI." Paper prepared for the Centre for Trade Policy and Law Trade and Investment Conference. November 19. Revised December 2004.
- Organisation for Economic Co-operation and Development (OECD). 2005. *Economic Outlook 78*. Paris. December.
- Ostry, Sylvia, and Gilbert R. Winham (2003) "The Second Trade Crisis," *Globe and Mail*. June 17.
- Roy, Francine. 2006. "Canada's Place in World Trade, 1990-2005." *Canadian Economic Observer*. Statistics Canada: Ottawa. March.
- Sawchuk, Gary, and David Yerger. 2005. "Who Does Canada Compete With in the US Marketplace? Consequences of Shifting US Import Market Shares and China's Export Growth." Preliminary draft. Paper Presented at the 2005 Canadian Economics Association Meetings. May.
-

- Standing Senate Committee on Foreign Affairs. 2003. *Uncertain Access: The Consequences of US Security and Trade Actions for Canadian Trade Policy. Volume 1.*
- Trefler, Daniel. 2004. "The Long and Short of the Canada-US Free Trade Agreement." *The American Economic Review*. Vol. 94, Issue 4; pg. 870, 26 pgs. Nashville: September.
- Zhang, Daowei, and Anwar Hussain. 2004. "Impact of US-Canada Softwood Lumber Trade Dispute on Forest Products Companies: A Stock Market Perspective." August 5. Unpublished.
-

## Recent C.D. Howe Institute Publications

- June 2006 Robson, William B.P. "Many Happy Returns: Guarding the Integrity of the CPP Investment Board." C.D. Howe Institute e-brief.
- June 2006 Chen, Duanjie, and Jack M. Mintz. "Business Tax Reform: More Progress Needed." C.D. Howe Institute e-brief.
- June 2006 Robson, William B.P. and Danielle Goldfarb. "Canadian Workers Need Better Tools: Rating Canada's Performance in the Global Investment Race." C.D. Howe Institute e-brief.
- June 2006 Poschmann, Finn. "Federal White Paper Should Address Declining Productivity in Financial Services." C.D. Howe Institute e-brief.
- June 2006 Dobson, Wendy. *The Indian Elephant Sheds its Past: The Implications for Canada*. C.D. Howe Institute Commentary 235.
- May 2006 Jaccard, Mark, Nic Rivers, Christopher Bataille, Rose Murphy, John Nyboer and Bryn Sadownik. "Burning Our Money to Warm the Planet: Canada's Ineffective Efforts to Reduce Greenhouse Gas Emissions." C.D. Howe Institute Commentary 234.
- May 2006 Guillemette, Yvan. *The Case for Income-Contingent Repayment of Student Loans*. C.D. Howe Institute Commentary 233.
- May 2006 Guillemette, Yvan, and William Robson. "Le conte de deux provinces : Le dépassement des dépenses en Ontario et au Québec signale des difficultés budgétaires." C.D. Howe Institute e-brief.
- May 2006 Guillemette, Yvan, and William Robson. "A Tale of Two Provinces: Spending Overruns in Ontario and Quebec Spell Fiscal Trouble." C.D. Howe Institute e-brief.
- May 2006 Alexandroff, Alan S. "Investor Protection in the NAFTA and Beyond: Private Interest and Public Purpose." Policy Study 44.
- April 2006 Mintz, Jack, and Thomas A. Wilson. "Removing the Shackles: Deferring Capital Gains Taxes on Asset Rollovers." C.D. Howe Institute Backgrounder 94.
- April 2006 Poschmann, Finn, and William B.P. Robson. "Lower Taxes, Focused Spending, Stronger Federation: A Shadow Federal Budget for 2006." C.D. Howe Institute Backgrounder 93.
- April 2006 Poschmann, Finn. "Ready for Relief: There's More to a Lower GST Than Meets the Eye." C.D. Howe Institute e-brief.
- April 2006 Goldfarb, Danielle, and Stephen Tapp. *How Canada Can Improve Its Development Aid: Lessons from Other Aid Agencies*. C.D. Howe Institute Commentary 232.
- April 2006 Richards, John. *Can Aid Work? Thinking about Development Strategy*. C.D. Howe Institute Commentary 231.
- March 2006 Robson, William B.P. *Beating the Odds: A New Framework for Prudent Federal Budgeting*. C.D. Howe Institute Commentary 230.
- March 2006 Hart, Michael. *Steer or Drift? Taking Charge of Canada-US Regulatory Convergence*. C.D. Howe Institute Commentary 229.
- March 2006 Trebilcock, Michael J., Richard J. Pierce and Evan Thomas. *Beyond Gridlock: The Case for Greater Integration of Regional Electricity Markets*. C.D. Howe Institute Commentary 228.
- February 2006 Richards, John. *Creating Choices: Rethinking Aboriginal Policy*. Policy Study 43.
- February 2006 Pakravan, Payam. *The Future Is Not What It Used to Be: Re-examining Provincial Postsecondary Funding Mechanisms in Canada*. C.D. Howe Institute Commentary 227.
- February 2006 Jack M. Mintz and Tom Roberts. *Running on Empty: A Proposal to Improve City Finances*. C.D. Howe Institute Commentary 226.
- February 2006 Baker, Michael, Jonathan Gruber and Kevin Milligan. "What Can We Learn from Quebec's Universal Childcare Program?" C.D. Howe Institute e-brief.
- January 2006 Chen, Duanjie and Jack M. Mintz. "Ranking the Parties' Tax-Cut Promises." C.D. Howe Institute e-brief.
- January 2006 Harris, Richard G., Stephen T. Easton and Nicolas Schmitt. *Brains on the Move: Essays on Human Capital Mobility in a Globalizing World and Implications for the Canadian Economy*. Policy Study 42.

**C.D. Howe Institute**  
67 Yonge Street Suite 300  
Toronto, Ontario  
M5E 1J8