## ABSTRACT

We conduct a survey of the effects of 9/11 on the costs of trading between Canada and the U.S. for 64 firms representing 102 instances of trade (38 firms trading both ways; 26 trading one way). After presenting general results, we analyze how costs varied relative to three factors: the destination of shipments, the size of firms and the volumes of trade. Our data reveals that the new security measures at the Canadian-American border have strongly and quite equally impacted the activities of exporters and importers on both sides of the border. Hence, a significant number of firms on both side of the border saw their different categories of costs (e.g. transportation, insurance etc.) increase due to new security measures. Also, we obtain that larger importers and exporters: i) were more likely to experience increased costs and; ii) had greater cost variations than smaller ones. Finally, we show that traders with higher volumes of trade were more likely to experience cost increases after 9/11 and also that the higher the trade volume, the more important the cost increase.

# THE IMPACT OF 9/11 ON TRADE COSTS: A SURVEY*

GEORGES TANGUAY
MARIE-CHRISTINE THERRIEN

## I. INTRODUCTION

The trade partnership between Canada and the United States is known to be one of the strongest economic partnerships in the world. Its importance has been growing rapidly during the last decade due to the Canada-U.S. Free Trade Agreement (FTA) of 1989 and the North American Free Trade Agreement (NAFTA) of 1994. Since 1989, trade between Canada and the United States has more than tripled, from \$192.4B to \$680B in 2004.[1] Today this partnership yields close to \$1.8B in trade turnover every day.[2] Therefore, many consider both economies as very much integrated and it is widely believed that *ceteris paribus* any inter-provincial trade is as provinces trading with states. However, this is not the reality: the Canada-U.S. border trade between both countries has never been frictionless.

Numerous studies have shown that the border and border policies have caused important costs and negatively affected firms trading between both countries. For instance, McCallum (1995), Helliwell (1996, 1998), Anderson *et al.* (1999) and Brown *et al.* (2002) show that the mere existence of the border causes important trade frictions between the U.S. and Canada. This is what has been called the *border effect.* Hence, trade between two regions (provinces or states) can be explained by factors such as distance, economic size (GDP) and the existence of trade barriers (e.g. tariffs) but also by the mere existence of the border itself. For instance McCallum (1995) showed that *ceteris paribus* trade between provinces was 20 times more likely than trade between a province and a state. The existence of the border effect has been explained by factors such as differences in national institutions and cultures.

---

Professor Tanguay holds a Ph.D. in economics from Laval University in Quebec City. After completing his Ph.D. he joined McGill University in Montreal as a post-doctoral fellow at the Institute for the Canadian Studies and at the Department of Economics. Professor Tanguay is now a professor of urban and regional economics at the *Université du Québec a Montréal.* Professor Tanguay's main areas of research are applied microeconomics and public sector economics. Some representative publications are: "Food Prices and the Timing of Social Welfare Payments: A Canadian Study" (with G. Hunt and N. Marceau), *Canadian Public Policy/Analyses de Politiques* (2005); "Environmental Policies, Public Interest and the Political Market" (with P. Lanoie and J. Moreau), *Public Choice* (2004); "Centralized versus Decentralized Taxation of Mobile Polluting Firms" (with N. Marceau), *Resource and Energy Economics* (2001); "Strategic Environmental Policies under International Duopolistic Competition," *International Tax and Public Finance* (2001); "Factors Leading to Green Profitability: Ten Case Studies" (with P. Lanoie), *Greener Management International* (2001); "Protecting Canada and the U.S. against Terrorism: A Common Security Perimeter?" (with M-C Therrien) in Alan M. Rugman (ed.) *North American Economics and Financial Integration: Research in Global Strategic Management* (2003).

Marie-Christine Therrien teaches at the National Graduate Public Administration School in Montreal, Quebec. A graduate of the Ecole des Mines de Paris, her research interests are in crisis management, danger sciences, and organizational learning and networks. Among her publications: "Modeling Systemic Learning after Crisis", *Journal of International Emergency Management,* Vol. 2, No. 3 (2004); "The American Red Cross and the Liberty Fund: Ethically Stuck Between Accountability and Development". *International Business and Economics Research Journal.* Vol. 2, No. 12 (2003), "The Canada-U.S. Border: Achieving an Efficient Interorganizational Policy Coordination," *Canadian-American Public Policy, 54* (2003); "Optimal Border Policy Cooperation" (with G. A. Tanguay), in Alan M. Rugman, ed., *North American Economic and Financial Integration,* (2003); "Formalization and Use of Experience in Forest Fire Management", *Journal of Contingencies and Crisis Management,* Fall, (2001). E-mail: mctherrien@enap.ca

Also, Taylor *et al.* (2004) estimated that the border management system and trade policies cost the United States and Canadian economies $10.3B in 2002. Given these costs, it is not surprising that before September 11, 2001 there was a movement to make the Canadian-American border more open, facilitating travel for business and other parties.[3] The tragic events shifted the focus in both countries to border security and led to border policy changes. As a result, initiatives have been coordinated to combine increased security under new policy regulations with less restrictive border crossing procedures for pre-approved business partners. This is to mitigate the potential negative effects which increased security may have on trade. As illustrated in Golob (2002) "both sides have long recognized that it is in the interest of neighbors with highly interdependent economies to facilitate legal trade, but now there is an added reason to cooperate to keep out illegal cross-border flows."

The emergence of new border policies has led some authors to evaluate the policies' effects. Like our study, those studies have indicated that tightened border security has had a negative influence on Canada-U.S. trade. As a matter of fact, to our knowledge no study based on hard data and statistics found that the border worked better and led to lower costs after 9/11. For instance, two reports prepared by the Ontario Chamber of Commerce (2004, 2005) show among others that: i) the United States absorbs 40% of the border delays totaling USD $4.13 billion per year; ii) if nothing changes concerning border issues, the US will lose 17, 345 jobs by 2020; iii) border delays represent a cost of more than CDN $1,100 a year for each Ontario taxpayer; iv) delays at the border are costing the Canadian and US economies over CDN $13.6 billion per year. Hufbauer and Vega-Canovas (2003) wrote: "The long-term impact of new and permanently higher levels of border security would be much greater transaction costs, acting like an added tariff on North American trade, a new tax on direct investment, and an obstacle to business and pleasure travelers. Until NAFTA countries come to grips with this new reality, the progressive rise in economic integration achieved between 1989 and 2002 could simply grind to a halt." Dobson (2002) also argues that the potential long-term impact of a permanent increase in border security would present an added tariff on two-way trade. In a recent study, Lee *et al.* (2005) support those views. They analyzed how costs and border wait time have varied due to security measures implemented after 9/11, for goods exported by truck from the province of Quebec to the United States. Their findings indicate an average increase in cost of $50 per border crossing per truck. These cost increases are often absorbed by firms to maintain their prices by reducing salaries and / or loss of jobs. This same study estimates the cost of adjustments of firms to the new security policy C-TPAT at 17% of the value of sales to low volume trading firms, at 0.79% of the value of sales to mid-volume trading firms and 0.10% to high volume.

The current paper adds to the previous literature by looking at how firms have been affected by the new border policies in the North American North East. To do so, we conducted a survey in 2004 of 64 firms trading in the New England states and provinces of Atlantic Canada and Quebec. We present a general portrait of how surveyed firms' costs varied due to the implemented security measures. We then show how costs varied relative to the destination of shipments, the size of the firms and the firms' volumes of trade. A priori, we expect that 1) costs will be higher for firms shipping to the U.S. as border security policies seem stricter; 2) larger firms will more easily absorb adjustment costs to the new policies; 3) smaller firms will adapt more easily to changes but would incur higher costs; and finally, 4) firms with higher volumes of trade will more easily absorb higher costs due to changes in border policies.

We obtain that close to half of all goods were traded at higher costs and the magnitude of the cost increases was quite important. Hence, we argue the implementation of various additional security regulations at the Canadian-American border has strongly impacted the routine activities of exporters and importers. It impacted their business activity on all levels: preparation of goods for shipment, staff training, obtaining additional security clearances, dealing with increased disturbances at the border (such as increased wait times), internal adjustments, new distribution tactics and delivery timing plans. Moreover, our data reveals that the new security measures at the Canadian-American border have strongly and quite equally impacted the activities of exporters and importers on both sides of the border. First, a significant number of firms on both sides of the border saw their different categories of costs (e.g. transportation, insurance etc.) increase due to new security measures. Second, very generally, our results reveal that small firms adjusted more easily than larger ones to the new security measures. Our data shows that larger firms were more likely to experience increased costs following 9/11 and that among firms that saw their costs increase, larger firms had greater cost variations than smaller ones. Third, our results show that for any given firm, the higher the volume of trade, the more likely costs were to increase after 9/11. Also, the higher the trade volume, the more important the cost increases.

In the next section, we explain the methodology developed to conduct the survey. In section three, we show how trade costs varied relative to destination of shipments, size of the firms and firms' trade volumes. The conclusion follows.

## II. METHODOLOGY AND SAMPLE INFORMATION

### 1. Survey Development

A "sweeping in" process was used. This methodology allowed us to start our research by first understanding what are the major issues which firms face with border policy changes. The next step was then to build a mail survey by questionnaire around those issues.

Therefore, to better understand the issues related with the new border security regulations, we met in the spring of 2004 with four firms engaged in trading and one trade association. The collected information was analyzed to determine key questions to be included in the survey. Also, in this first step we conducted a general research of the Canadian-American trade partnership and border security policies. Data was collected on the history and current trends in the development of Canadian-American economic cooperation. In particular, we looked at border policies before and after 9/11. A questionnaire was developed based on the acquired information (see Appendix 1). Various issues were considered, such as costs variations, transportation, border wait times, internal firm strategies, firms' economic indicators before and after 9/11 and feedback from firms on new border policies.

### 2.2 Data

Our objective for this research was to obtain a non-probable purposive sample of 50 firms (25 in Canada and 25 in the U.S.). We therefore chose a sampling frame by random assignment of 300 firms (150 in Canada and 150 in the U.S.). For each state and province, approximately 30 questionnaires were sent in the summer of 2004. The questionnaire included questions on costs, volumes of trade, organizational structure and other issues. The firms included in the sampling frame were all private firms and were also all involved in trading according to information obtained from the web sites of International Trade Canada and the U.S. Department of Commerce. We also made sure that firms were chosen in different industry sectors as we eventually would need to organize our non-probable purposive sample for simple statistic calculations. The questionnaire was sent directly to the manager identified as being responsible for trade in their firm, based on information obtained from the previously mentioned websites. In order to increase the survey response rate, we sent out a postcard reminder to firms who had not returned the survey by August 31, 2004. The postcard indicated that firms could eventually fill out the questionnaire on our website.

In the end, our non-probable purposive sample is of 64 firms, for a final 21.3% participation rate.[4] This rate is acceptable for this study as our objective is to gain insight for a first study based on trade in the North American North East. This rate is also normal considering two elements. First, as researchers we were not geographically close to our respondents. Second, we were dealing with private firms. They understandingly were reluctant to reveal their exact actual costs variations due to the new policies. Therefore, firms answered by choosing different ranges of costs on the questionnaire. However, this could have still made some managers uncomfortable in responding to the questionnaire.

The independent variable being costs, the sample was then organized based on the three following dependent variables.

1) *Trade volume*: Obviously surveyed firms had to trade across the border on a regular basis. Thirty-eight firms were both exporters and importers while 26 exported or imported only. Therefore, although the number of participants is 64, they account for 102 instances of trade. Table 1 gives some basic statistics for the 64 surveyed firms while Table 2 shows details of the 102 importers-exporters.

2) *Geography*: New England states in the U.S., Atlantic Provinces and Quebec in Canada. In order to attain a representative sample, we surveyed firms in the states of Maine, New Hampshire, Connecticut, Massachusetts, Vermont and the provinces of Nova Scotia, Newfoundland and Labrador, New Brunswick, Quebec and Prince Edward Island. The distribution of firms in the sample is based on their country of location. In the end, we obtained a well-balanced sample with 30 firms located in the U.S. and 34 located in Canada. That ensured proper representation of both countries (47% for the U.S. and 53% for Canada). Finally, note that a balanced sample of firms also led

to a fairly equal representation of the instances of trade with 56 firms exporting to Canada or importing to Canada (for 55%) and 46 firms exporting to the U.S. or importing to the U.S. (45%).

3) *Sectors*: We aimed for a certain diversity of represented sectors and firms were divided into four main sectors: *Manufacturing, Agriculture/Forestry/Fishing/Hunting, Wholesale/Retail,* and *Other*. The final distribution in each sector is: 58.8% *Manufacturing*, 12.5% *Agriculture*, 15% *Wholesale/Retail* and 13.7% covered multiple sectors.

Table 1: Average Exports, Imports and Number of Employees[5]

| | |
|---|---|
| Exports volume | $2,527,966 |
| Imports volume | $3,375,581 |
| Number of employees | 87 |

Table 2: Number of Importers and Exporters by Destination

| | | | |
|---|---|---|---|
| Canadian importers | 29 | Canadian exporters | 32 |
| U.S. exporters | 27 | U.S. importers | 14 |
| **Total Shipping to Canada** | **56** | **Total Shipping to the U.S.** | **46** |

### 2.2.1 FAST and NEXUS Programs and Border Wait Times

The Free and Secure Trade (FAST) program is a joint Canada-U.S. initiative involving the Canada Customs and Revenue Agency, Citizenship and Immigration Canada, the United States Bureau of Customs and Border Protection (CBP). FAST supports moving pre-approved eligible goods across the border quickly and verifying trade compliance away from the border.[6] The NEXUS alternative inspection program allows pre-screened, low-risk travelers to be processed with little or no delay by United States and Canadian border officials. Approved applicants are issued photo-identification and a proximity card. Participants cross the border in a dedicated lane, where they present their identification, and make a declaration. They are then released, unless chosen for a selective or random secondary referral.[7] Only a small percentage of the surveyed firms participate in these programs (FAST participants 9.38%, NEXUS participants 1.56%). This could be explained by the fact that few border crossing had such programs fully operational at the time of our survey.

Finally, Canada Border Services Agency provides a convenient online service that allows traders to check current border wait times at the Canadian-American border crossings. The majority of the firms use trucks as their main mean of transportation for trade. Other means include air, ship, rail and other (e.g. pipeline). In the end: 54.7% use trucks only, 31.3% use trucks and other means, and 14% use other means only. Surveyed firms were asked whether they used the online service: 6.25% of firms answered *yes*, 92.19% of firms answered *no*. Such a small percentage of firms utilizing this service might be explained by the fact that they were unaware of the service, or by the fact that if the firm had frequently experienced longer border waits at certain crossings, it might have opted for changing its delivery route or incorporated the potential wait time in the estimated delivery time period.

Now that we have presented our sample's main characteristics, we now turn to the analysis of cost variations.

## III. TRADE COSTS VARIATIONS

As mentioned earlier, our sample includes 102 instances of trade. Given that our goal is to analyze how 9/11 affected the costs of trading, we decided to look at the data from an "import-export" point of view. Therefore we based our calculations on those 102 importers and exporters. To simplify the text, from now on we will call these 102 importers-exporters *traders*. In section 3.1, we first present general trends regarding transportation costs, freight insurance and organizational adjustments (e.g. additional preparation of documents). In sections 3.2 to 3.4, we discuss relationships between cost changes relative to the following specific factors: destination of shipments, the size of firms and the firms' trade volumes.

### 3.1 General Trends

Considering changes in policy and increased risk following 9/11, firms were asked in which areas their costs changed. As shown in Figures 1 and 2, 43% of all traders reported higher transportation costs for an average increase of 2.65%. 24% reported higher freight insurance costs which averaged 4.18%.[8]

**Figure 1: Percentage of Traders Reporting Transportation and Freight Insurance Cost Increases**

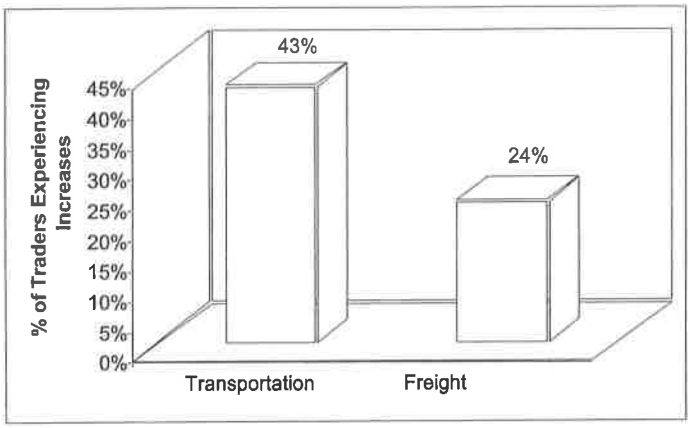
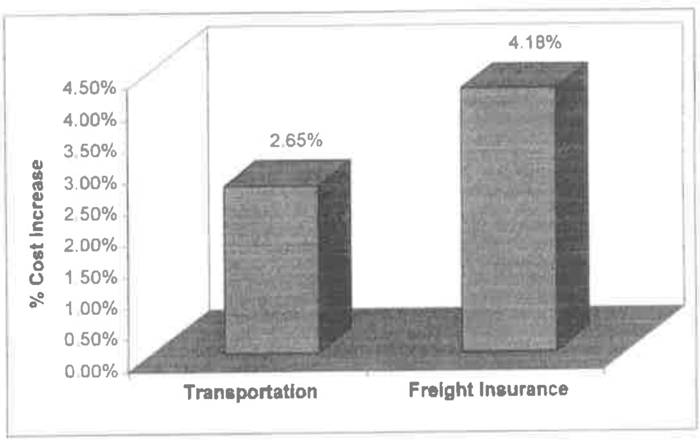



**Figure 2: Transportation and Freight Insurance Cost Increases**




As shown in Figures 3 and 4, firms also reported higher costs due to required organizational changes. Forty-seven percent of firms reported increases because they had to educate staff to new border policies, and 31% indicated having to plan deliveries differently. In the case of increased wait times at the border and document preparation to comply with new security rules, 53% reported increases in wait time which averaged 17.78% and 47% said they had to take more time to prepare the documentation accompanying shipments for an average increase of 9.5%.

**Figure 3: Percentage of Traders Reporting "Other" Cost Increases**

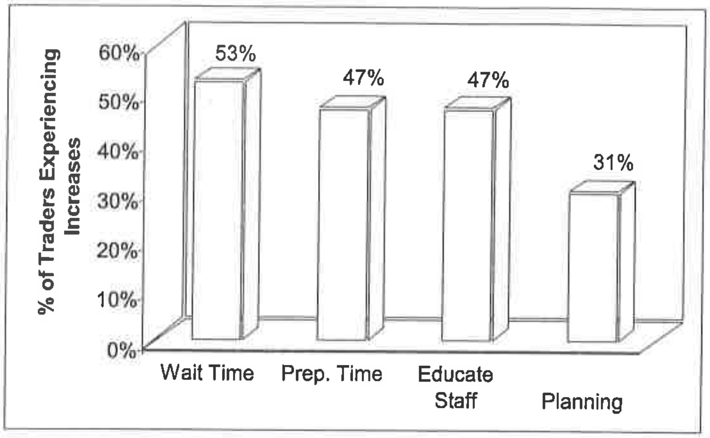
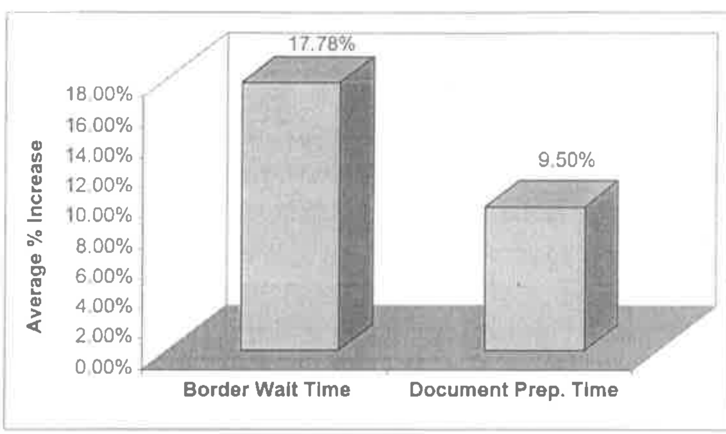



**Figure 4: Border Wait Time and Document Prep. Time Increases**

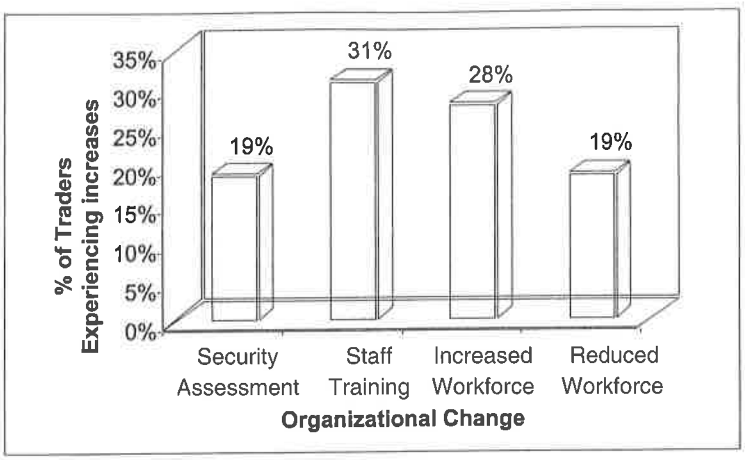


### 3.1.1 Organizational Changes

Certain measures were taken by firms to improve their organizational structures under the new conditions. These organizational changes are illustrated in Figure 5. First, 19% of all traders conducted security assessments while 31% implemented additional staff training.

Second, there were also changes in human resources. In the process of adjusting to new conditions, some traders had to hire additional workers to help manage trade (28%), and others reduced their workforce in order to cut costs (19%).

**Figure 5: Organizational Changes**



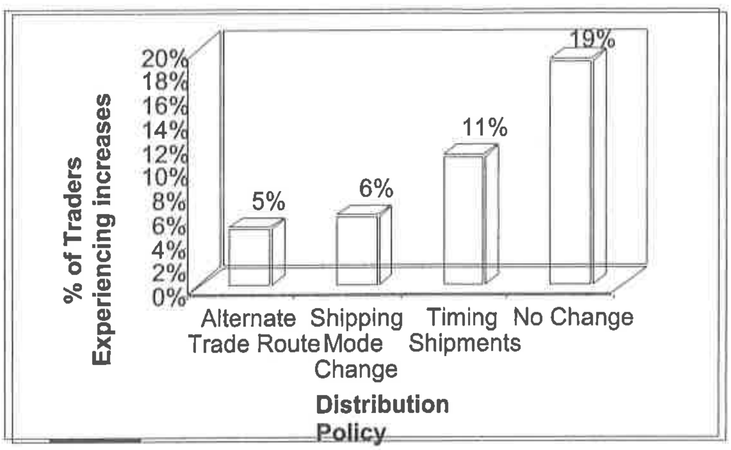

Most of these changes are not surprising given the increased time for preparing accompanying documentation. Indeed, more time was needed for the staff of the exporting/importing companies to learn about new regulations, new requirements imposed, and new ways to document shipments. Finally, this additional time has translated into additional costs for the firms (designated as *other costs* in the earlier parts of this report).

### 3.1.2 Changes in Distribution Policies

Our survey revealed that increased uncertainty has caused problems for many exporters and importers after 9/11. For instance, not knowing exactly the required time for border crossings caused problems in planning deliveries efficiently, with the *just-in-time* deliveries becoming more difficult (or highly risky to rely on).

In order to cope with these new problems, firms utilized different shipment tactics. As shown in Figure 6, these tactics included moving shipments to border crossings where wait times were lower, changing the mode of shipment and timing shipments when wait times were lower.

**Figure 6: Changes in Distribution Policies**




We now present how costs varied relative to the destination of shipments, the size of firms and the volumes of trade.

### 3.2 Cost Variations Relative to Destination of Shipments

When we started analyzing cost variations relative to destination, we assumed that due to a higher increase in security awareness in the U.S. compared to Canada, there had been an asymmetric development of border security regulation system at the Canadian-American border. In other words, we thought that goods entering the U.S. were more subject to problems than goods entering Canada. Therefore, firms exporting to the United States (or importing from) were more likely to be subject to cost increases than their Canadian counterpart.[9]

It was somewhat surprising to find there were insignificant differences in terms of number of traders by destination affected and that the cost increases were quite minimal.[10] More precisely, we see from graphs

7 and 8 that all importers and exporters experienced similar increases of their transportation and freight insurance costs. The percentages of increased costs by destination are also almost similar.

Tanguay *et al.* (2004) show a possible explanation. First, assume the Unites States believes its best strategy is to increase border security regardless of what Canada does (for instance because it believes it is the main target for terrorists). In this case, it will generate positive externalities for Canada because the increased U.S. border security should reduce the overall level of terrorism in both Canada and in the U.S. However, increased American border security could also generate negative externalities for Canada. This could be the case for two reasons. First, increased security could disrupt trade flows, and in turn increase costs given that 87% of Canadian exports are destined for the U.S. Second, since increasing U.S. border security changes the relative costs of conducting terrorist activities in both countries (the relative costs of hitting both targets), this change could then shift terrorist activities to Canada.[11] This in turn could lead to Canada increasing its own border security. Hence, it is possible that if the U.S. has the motivation to increase border security so will Canada. Canada may be aware that not doing so would have negative effects on its exports to the U.S. and that terrorists might be more attracted to attacking Canada given the higher difficulty (costs) of hitting the U.S.

**Figure 7: Percentage of Traders Reporting Transportation and Freight Insurance Cost Increases**

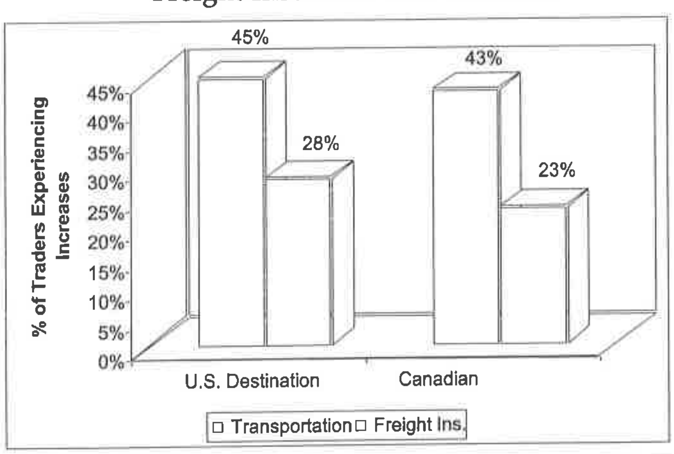
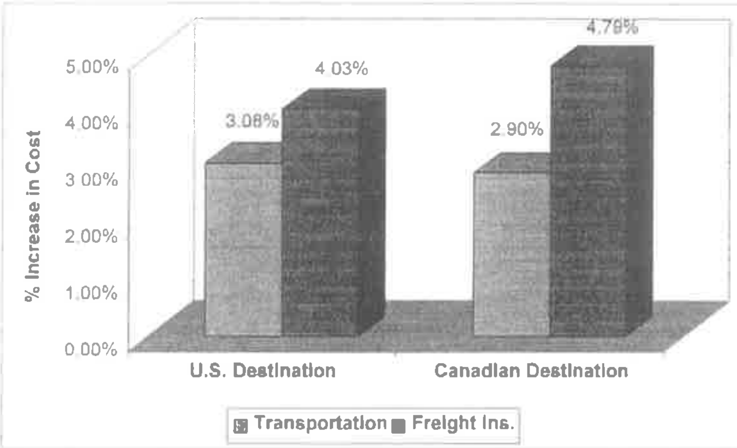


**Figure 8:—Transportation and Freight Insurance Cost Increases by Destination**




Finally, again looking at Figures 7 and 8, we should note that if we did not find the expected asymmetry between goods shipped to the U.S. compared to those shipped to Canada, almost half of all goods were traded at higher costs and the magnitude of the cost increases were quite important. Hence, the implementation of various additional security regulations at the Canadian-American border has strongly impacted the routine activities of exporters and importers. It impacted their business activity on all levels, from the preparation of goods for shipment, training staff about new border regulations, obtaining additional security clearances, dealing with increased disturbances at the border (such as increased wait times), to the ensuing changes that they had to make in their business strategies. They had to adjust internally, change their distribution policies, pricing strategies (considering increased costs of cross-border trade) and delivery timing plans.

We now look at two aspects for which goods entering the U.S. were affected more than those entering Canada: border wait time and document preparation.

### 3.2.1 Border Wait Time

One of the issues which affect firms shipping goods is border wait time because they have a meaningful impact on costs. About one third of all goods traded have been subject to increased border waiting times following 9/11. Forty-one percent of all shipments to the U.S. were delayed as were 28.57% to Canada.

### 3.2.2 Document Preparation

Another problem encountered by the surveyed firms was the difficulty of preparing all the required papers for cross-border shipments. Confusion about the new regulations has led to drastic increases in the time for document preparation in some of the surveyed firms. [12] Firms also complained that errors in document preparation after 9/11 increased the possibility of stalling one's cargo at the border and delay the delivery. The percentage of traders whose time for preparing accompanying documentation for shipments has increased for the ones shipping to the U.S. is noticeably higher than the percentage for the ones shipping to Canada (34.78% versus 25%).

### 3.3 Costs Variations Relative to the Size of Firms

The capacity of a firm to adjust more or less rapidly to changes can be related to its size. It is generally recognized that smaller firms can adjust to changes in their environment with more ease than larger firms (for instance see Johnson and Conway, 1999). Therefore, we were expecting smaller firms to be less affected than larger ones by the changes in border policies. To study this *stylized* fact, we looked at the variations in trade costs relative to firms' size. The firms were split into two categories, *small* and *large*. 41 small firms were defined to contain no more than 49 total employees while 23 large ones were defined to contain 50 employees or more. Figure 9 shows the percentage increase in trade costs among small and large traders while Figure 10 shows the percentage of increase in cost for both categories.

**Figure 9: Percentage of Traders Reporting Transportation and Freight Insurance Cost Increases**

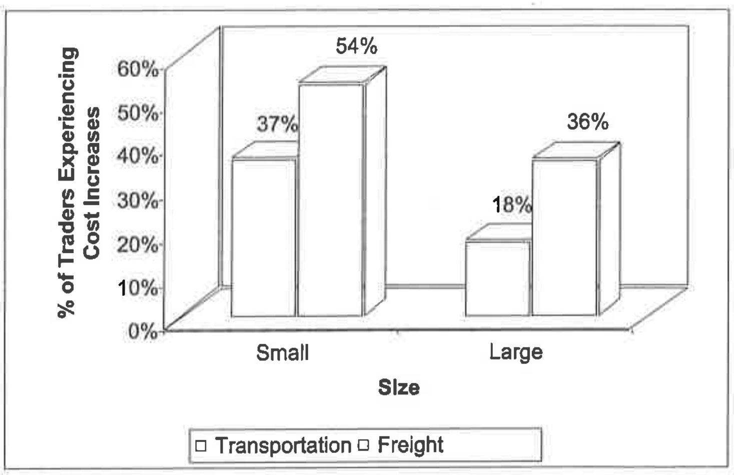
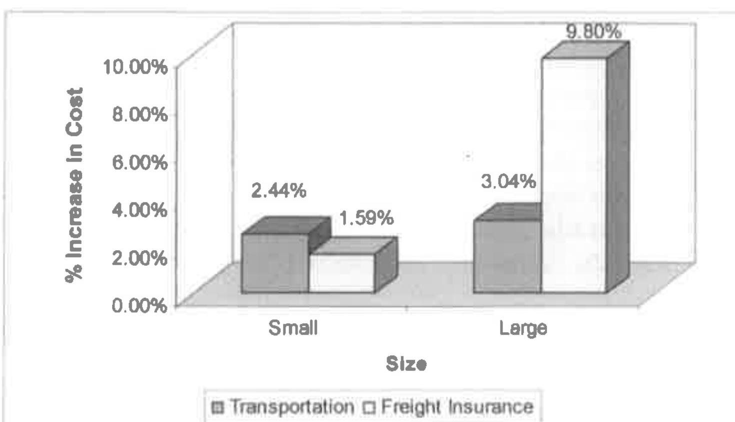


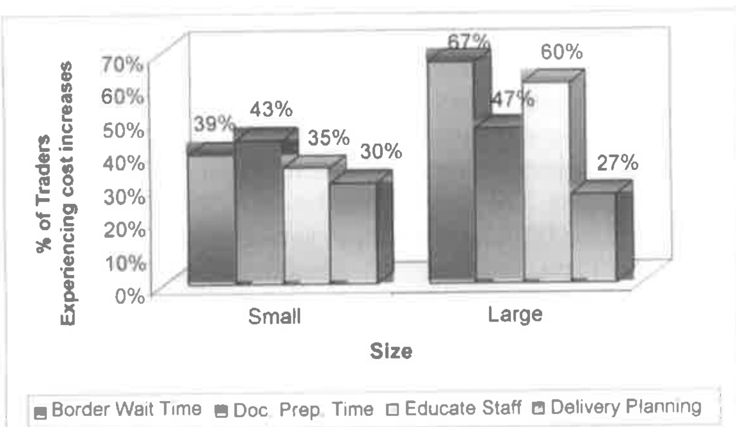

**Figure 10: Transportation and Freight Insurance Costs Increases**




It is somewhat surprising to note from these graphs that a substantially higher percentage of small traders were negatively affected than large ones for both transportation and freight insurance costs. However, among affected firms, the cost increases were higher for larger ones. For transportation costs, 37% of small traders reported higher costs compared to 18% for large ones. However, the average percentage of increase in cost was higher for large traders (3.04%) than for small ones (2.44%). For freight insurance, 54% of small traders reported an increase in freight insurance costs while 36% of large traders reported this increase. However, many large traders reported well above a 50% increase in freight insurance costs. That resulted in a much higher average increase for larger traders: 9.8% overall compared to 1.59% for smaller ones.

Figure 11 depicts the numbers of small and large traders reporting increases in all categories of "other" costs.

**Figure 11: Percentage of Traders Reporting "Other" Cost Increases**




In the case of *other* costs increases a higher percentage of large traders were affected for all categories except *delivery planning*. In particular, we noted that *border wait time* and *staff education* seemed a relatively more frequent problem for larger traders. For instance, 39% of small traders reported longer *border wait time* leading to an average cost increase of 17.17%. On the other hand, 67% of large traders reported longer *border wait time* causing an average cost increase of 16.33%.

So generally, our results validate that small firms adjust more easily than large ones to changes in their environment. Our data shows that larger firms were more likely to experience costs increases following 9/11. Moreover, among firms that saw their costs increase, larger firms had greater cost variations than smaller ones.

Other than the fact that smaller firms adjust better to changes than larger ones, we can think of another reason that might explain our results. *Ceteris paribus,* larger firms will have higher volumes of trade and therefore will be more likely to face problems at the border leading to increased costs.[13] We discuss that possibility further in section 3.4.

### 3.4 Cost Variations Relative to Trade Volume

By analyzing cost variations relative to the volume of trade (as measured by value of shipments), we are in fact testing two opposite hypotheses. First, one could argue *ceteris paribus,* firms with higher volumes of trade are more likely to be more experienced traders and therefore better at dealing with security changes. On the other hand, another could argue *ceteris paribus,* the higher the volume of trade, the more likely firms are to face problems at the border leading to increased costs. In order to test those possibilities, we divided the firms into three volume categories according to the value of their imports and exports. The *low* volume traders (N=27) are the firms with less than $150,000 in total trade per year, the *mid* volume traders (N=30) are the firms with trade volumes between $150,001 and $3,000,000 in total trade per year and the *high* volume traders (N=45) are the ones with a trade volume of over $3,000,000 per year. Figure 12 shows the percentage of firms within each category experiencing trade cost increases in transportation and freight insurance with respect to volume. Figure 13 illustrates the average percentage variations in trade costs (within each volume category) for traders reporting an increase in transportation and freight insurance costs.

**Figure 12: Percentage of Traders Reporting Transportation and Freight Insurance Cost Increases**

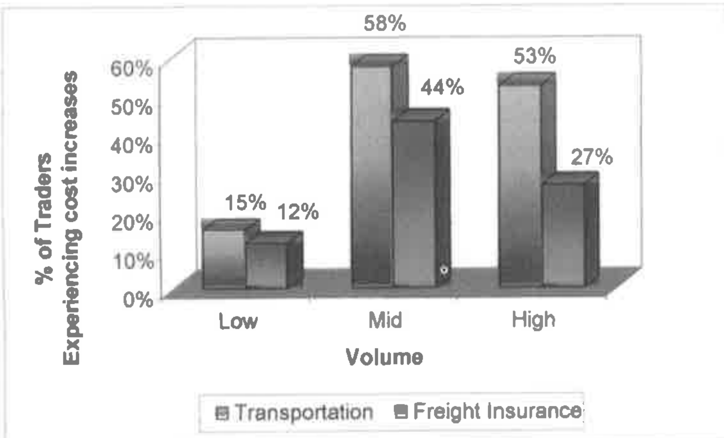
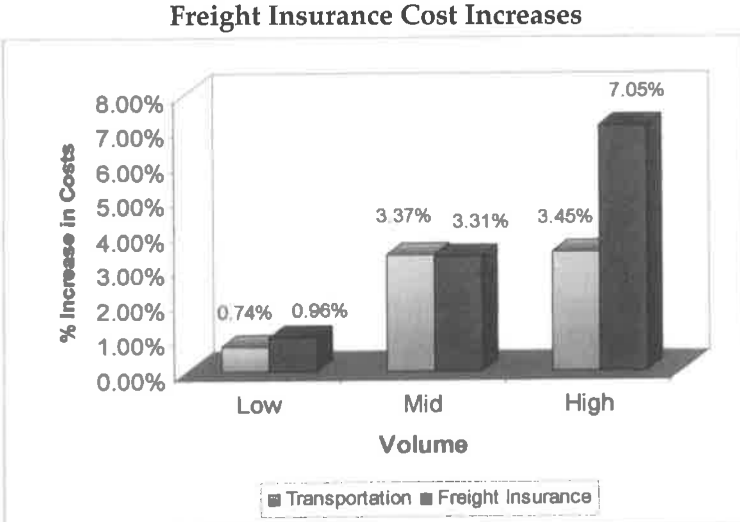



**Figure 13:Percentage of Traders Reporting Transportation and Freight Insurance Cost Increases**




We observe from Figure 12 that approximately 50% of all *mid* and *high* volume traders experienced higher transportation costs while only 15% of *low* volume traders reported the same phenomenon. If the story is somehow less clear for reported increase in freight insurance costs, we can nevertheless state that in general the higher the trade volume, the more likely a firm will declare higher transportation and freight insurance following 9/11.

From Figure 13, we can note that a very similar trend also exists for the magnitude of declared cost increases within each category of trade volumes. Higher volume traders are not only more likely to experience higher costs. They are also more likely when this is the case to face steeper increases.

Therefore, our results validate the hypothesis that *ceteris paribus*, the higher the volumes of trade, the more likely costs were to increase after 9/11 and also the higher the trade volume, the more important the cost increases.

For *border wait time* increase, 10% of *low* volume traders reported an increase, 32% of *mid*-volume traders and 46% of *high* volume traders. For *document preparation time* cost increases, 14% of *low* volume traders were affected, as were 16% of *mid*-volume traders and 38% of *high* volume traders. For *additional staff training*, 14% of *low* volume traders had to do more training, as did 11% of *mid* volume and 50% of *high* volume traders. Finally, 10% of *low* volume traders reported difficulties in *efficiently planning deliveries* due to uncertainty at the border, as did 16% of *mid* volume traders and 25% of *high* volume traders. For these organizational adjustments, the trend is clearly upwards from *low* to *high* volume traders, with the exception of *mid* volume traders in the *additional staff training* category.

## IV. CONCLUSION

The tragic events of 9/11 made both the United States and Canada realize that there were flaws in the North American security system. Immediately after the attacks, the U.S. closed its border with Canada for approximately 24 hours, seriously disturbing cross-border traders. Huge losses incurred as a result of even such a brief border closure reminded Canadians and Americans of how tightly intertwined their economies are. It also reminded everyone that effective management of the border is the key to seamless trade and successful business between the two neighbors.

Many new policy initiatives were developed as a reaction to the new security threat. This has led to increased complexity in crossing the Canada-U.S. border. For instance, consider the increased paperwork that needs to accompany shipments, increased wait time at the border, educating staff to the new policies, delivery planning etc.

We should note that if we did not find the expected asymmetry between goods shipped to the U.S. compared to those shipped to Canada, on the other hand the number of firms affected and the magnitude of the cost increases were quite important. Hence, the implementation of various additional security regulations at the Canadian-American border has strongly impacted the routine activities of exporters and importers. It impacted their business activity on all levels from the preparation of goods for shipment, training staff about new border regulations, obtaining additional security clearances, dealing with increased disturbances at the border (such as increased wait times and high uncertainty), to the ensuing changes that they had to make in their business strategies. These traders needed to adjust internally, change their distribution policies, pricing strategies (considering increased costs of cross-border trade) and delivery timing plans. So very generally, our results validate the contention that small firms adjust more easily than large ones to changes in their environment. Our data shows that larger firms were more likely to experience increased costs following 9/11. Moreover, among firms that saw their costs increase, larger firms had greater cost variations than smaller ones. Therefore, our results validate the hypothesis that *ceteris paribus*, the higher the volumes of trade, the more likely costs were to increase after 9/11. Also, the higher the trade volume, the more important the cost increases.

Although the level of security has definitely improved, the new regulations also imply a higher level of costs for cross-border traders, decreased profitability of business, loss of jobs and frustration for many firms. Considering our results, it becomes obvious that both federal governments need to improve their border management policies. Even if many programs have been put in place on both sides of the border, it is quite clear that costs have increased for firms and eventually could lead to higher prices for consumers. One of the first policy changes that we recommend could be the streamlining of procedures for security clearance of firms. This could be done by committing more resources for security clearance evaluations by border agents (away from the border). Also, this should be more readily available to larger firms and / or larger volumes of trade firms which are the ones who experienced more increases in costs. The second policy change that we recommend could be in the form of a new fiscal policy for firms who have and will receive prior security clearance away from the border. Considering that firms in the U.S. and Canada are almost equally and highly affected by cost increases, both federal governments could issue a tax reduction if firms are undergoing or have received their security clearance. This could have two potential benefits. First, it could encourage more trading firms to adhere to the security clearance programs, eventually helping border trade flows. Second, it would permit firms not to increase the price of theirs goods, therefore benefiting consumers. Both of these policy recommendations go in the direction of helping further trade between the two countries considering that the border will remain, that security needs to be increased, and that trade is increasing and needs to be streamlined.

This paper on regional cross-border trade between the New England states in the U.S. and the Atlantic provinces and Quebec in Canada presents some evidence of the adverse impacts of the 9/11 events (and the ensuing deterioration of the business environment) on firms engaged in trade between Canada and the U.S. Trading firms were subject to increased transportation and freight insurance costs, increased wait times at the border, more complicated paperwork, security certifications, high uncertainty at the border and other troubles hindering their business.

The analysis of the adverse microeconomic impact of 9/11 events on firms reveals areas that governments need to target when developing new border policies. Much remains to be done. This study aims to provide a compelling argument for governments to speed up their work on the improvement of border policies, enhance their cooperation, and devote more attention to the facilitation of border crossing for legitimate shipments and people. As argued by Hart (2001): "there are compelling security and economic reasons for Canada and the United States to pursue a bold and coordinated approach to ensuring that the Canada-US border remains open as a conduit for trade, tourism, and investment between the two countries and less vulnerable to disruption by terrorists and other threats." However, a question remains to whether firms have adapted to the new border policies.

## REFERENCES

Anderson, M.A. and S.L.S. Smith (1999). "Do National Borders Really Matter ? Canada-U.S. Regional Trade Reconsidered", *Review of International Economics*, 7 (2), 219-27.

Brown, M.W. and W.P. Anderson (2002). "Spatial Markets and the Potential for Economic Integration between Canadian and U.S. Regions", *Papers in Regional Sciences*, 81, 99-120.

Canada Border Services Agency (2004). "The Free and Secure Trade (FAST) program" / / *http://www.cbsa-asfc.gc.ca/import/fast/menu-e.html.*

Canada Border Services Agency (2004). "Cross often? Make it simple, use NEXUS" / / *http://www.cbsa-asfc.gc.ca/travel/nexus/menu-e.html.*

Canada Border Services Agency (2004). "The Customs Self Assessment Program" / / *http://www.cbsa-asfc.gc.ca/import/csa/menu-e.html.*

Canada Border Services Agency (2004). "Partners in Protection" / / http: / / www.cbsa-asfc.gc.ca / general / enforcement / partners / menu-e.html

Canada Border Services Agency (2004). "Advance Passenger Information / Passenger Name Record" / / *http://www.cbsa-sfc.gc.ca/newsroom/factsheets/2004/0124passenger-e.html*

Canada Border Services Agency (2001). "Voluntary disclosures" / / *http://www.cbsa.gc.ca/general/vdpclient-e.pdf*

Canadian Embassy in Washington DC, USA (2004). "United States – Canada: the world's largest trading relationship" / / http: / / www.canadianembassy.org / trade / wltr-en.asp

CUSP Forum Report (2000). "Building a Border for the 21st Century".

Dobson, W. (2002). "Shaping the Future of the North American Economic Space: a Framework for Action", *C.D.Howe Institute Commentary*, p.15-16.

Enders, W. and T. Sandler (2004). "What Do We Know about the Substitution Effects in Transnational Terrorism?" In Andrew Silke (Ed.) *Researching Terrorism Trends, Achievements and Failures,* Frank Cass publishers, London, UK, Ch. 7, p. 256.

FedEx Trade Networks (2004). "C-TPAT (Customs-Trade Partnership Against Terrorism)" / / *http://www.fedex.com/us/customersupport/ftn/faq/C-TPAT.html?link=4.*

Golob, S.R. (2002). "North America beyond NAFTA? Sovereignty, Identity, and Security in Canada-U.S. Relations", *Canadian-American Public Policy*, 52, p.19.

Hart, M. and W. Dymond (2001). "Common Borders, Shared Destinies: Canada, the United States and Deepening Integration", Centre for Trade Policy and Law, Norman Paterson School of International Affairs, Faculty of Law, University of Ottawa.

Helliwell, J.F. (1996). "Do National Borders Matter for Quebec's Trade", *Canadian Journal of Economics,* 29 (3), pp. 507-22.

Helliwell, J.F. (1998). "How Much Do Borders Matter?". Brookings Institution Press, Washington, DC.

Hufbauer, G. C. and Vega-Canovas, G. (2003). "Whither NAFTA: A Common Frontier?". In Peter Anderson and Thomas J. Biersteker (Eds.) *The Rebordering of North America? Integration and Exclusion In a New Security Context,* London, UK, Routledge, 128-152.

Im, E.I., Cauley, J. and T. Sandler (1987). "Cycles and Substitutions in Terrorist Activities: A Spectral Approach". *Kyklos*, 2, 40: 223-255.

Johnson, P. and C. Conway. (1999). "Small Business Growth in the Short Run", *Small Business Economics,* 12 (2), pp. 103-13.

Lee, L., Martin, P., Ouellet, E. and F. Vaillancourt (2005). "Les mesures de sécurité aux frontiPres américaines : Impacts économiques potentiels pour le Québec et pistes de solution." Analyse préparée pour la Fédération des chambres de commerce du Québec, Chaire d'études politiques et économiques américaines (CÉPÉA), Université de Montréal.

McCallum, J. (1995). "National Borders Matter: Canada-U.S. Regional Trade Patterns," *American Economic Review*, 85 (3), pp. 615-23.

Ontario Chamber of Commerce (2004). "Cost of Border Delays to Ontario."

Ontario Chamber of Commerce (2005). "Cost of Border Delays to the United States Economy."

Sandler, T., Tschirhart, J. and J.Cauley (1983). "A Theoretical Analysis of Transnational Terrorism." *American Political Science Review*, March: 36-54.

Tanguay, G.A. and Therrien, M.C. (2004). "Protecting Canada and the U.S. against Terrorism: a Common Security Perimeter?" In Alan M. Rugman (Ed.) *North American Economic and Financial Integration: Research in Global Strategic Management*, Volume 10. Oxford: Elsevier, pp. 85-96.

Taylor, J.C., Robideaux, D. and Jackson, G.C. (2004). "U.S.-Canada Transportation and Logistics: Border Impacts and Costs, Causes, and Possible Solutions, " *Transportation Journal*, 43, pp. 1-10.

The Coalition for Secure and Trade-Efficient Borders (2004). "Rethinking our Borders: Beyond the Plan."

The White House (2002). "United States - Canada Nexus Program" // http://www.whitehouse.gov/news/releases/2002/09/20020909-1.html

U.S. Department of Homeland Security (2004). "U.S.-VISIT: Main Page" // *http://www.dhs.gov/dhspublic/interapp/content_multi_image/content_multi_image_0006.xml.*

U.S. Department of State (2002) . "U.S. - Canada Smart Border/30 Point Action Plan Update" // *http://www.state.gov/p/wha/rls/fs/18128.htm*

# APPENDIX 1

## Research Project: Economic Implications of Tightening Security at the Canadian American Border

## Questionnaire

*All financial indicators (e.g. volume of exports) in this questionnaire are given in U.S. dollars.*
*Please answer to the best of your knowledge. Thank you for contributing to this research on Canadian-American border issues.*

### GENERAL INFORMATION:

**1. What industry does your firm represent?:**

☐ Manufacturing ☐ Wholesale/Retail Trade ☐ Construction
☐ Agriculture/Forestry/Fishing/Hunting
☐ Other ____________________

Please indicate your firm's SIC/NAICS codes:

______________________________________________

**2. Number of employees:**

☐ 1-49 ☐ 50-99 ☐ 100-199 ☐ 200-299 ☐ 300-499
☐ 500-1000 ☐ 1000 +

**3. Volume of trade:**

**3.1. Volume of exports to Canada/U.S.:**

☐ zero (not an exporter)
☐ $1- $99,000
☐ $100,000 - $199,999
☐ $200,000 - $499,999
☐ $500,000 - $999,999
☐ $1,000,000 - $4,999,999
☐ $5,000,000 - $14,999,999
☐ $15,000,000 +

**3.2. Volume of imports from Canada/U.S.:**

☐ zero (not an importer)
☐ $1- $99,000
☐ $100,000 - $199,999
☐ $200,000 - $499,999
☐ $500,000 - $999,999
☐ $1,000,000 - $4,999,999
☐ $5,000,000 - $14,999,999
☐ $15,000,000 +

## TRANSPORTATION, BORDER CROSSINGS AND PROGRAMS:

**<u>4. Type of transportation used</u>** (check all that apply):

☐ Truck ☐ Air ☐ Ship ☐ Rail
☐ Other (please specify) ______________________

**Do you regularly check the Canada Customs and Revenue Agency's website to find out about current border wait times?** ☐ yes ☐ no

**<u>5. Does your firm participate in:</u>**
FAST : ☐ yes ☐ no NEXUS: ☐ yes ☐ no

**If yes, how do you estimate the efficiency of the program?**

**Transportation costs for:**

FAST: ☐ increased ☐ decreased ☐ did not change
NEXUS: ☐ increased ☐ decreased ☐ did not change

**Do you have any comments about these programs?**

______________________________________________

______________________________________________

**<u>6. Border crossings used:</u>**

**Maine:** ☐ Bridgewater ☐ Calais ☐ Fort Fairfield ☐ Fort Kent
☐ Houlton ☐ Jackman ☐ Limestone ☐ Madawaska
☐ Portland (ferry crossing) ☐ Van Buren ☐ Vanceboro

**Vermont:** ☐ Beecher Falls ☐ Norton ☐ Richford

**FAST Border Crossings:**

☐ Stanstead (55), Quebec / Derby Line, VT
☐ St. Armand/Philipsburg, Quebec / Highgate Springs, VT
☐ Lacolle, Quebec / Champlain, NY
☐ Lansdowne, Ontario / Alexandria Bay, NY
☐ Queenston, Ontario / Lewiston, NY
☐ Fort Erie, Ontario / Buffalo, NY
☐ Other (please specify) ______________________

☐ Windsor, Ontario / Detroit, MI
☐ Sarnia, Ontario / Port Huron, MI (Designated FAST Lane)
☐ Emerson, Manitoba / Pembina, ND
☐ North Portal, Saskatchewan / Portal, ND
☐ Coutts, Alberta / Sweetgrass, MT
☐ Pacific Highway, British Columbia / Blaine, WA

**COSTS: EXPORTER'S SECTION**

**7. If you are an exporter** (if not, please go to Section 8):

**7.1. What percentage represents production costs in the selling price of your exports?**

Average for all exports:
☐ 1-50% ☐ 50-60% ☐ 60-70% ☐ 70-80% ☐ 80-90%
☐ other ______________ (please specify)

**7.2. What percentage represents transportation costs in the selling price of your exports?**

Average for all exports:
☐ less than 1% ☐ 1-3% ☐ 4-7% ☐ 8-14% ☐ 15-20%
☐ other ______________ (please specify)

**7.3. What percentage represents freight insurance costs in the selling price of your exports?**

Average for all exports:
☐ less than 1% ☐ 1-3% ☐ 4-5% ☐ 6-10% ☐ 11-15%
☐ other ______________ (please specify)

**7.4. Do you incur any other costs?** ☐ yes ☐ no

**If yes, please specify the percentage of these other costs in the selling price of your exports:**

Average for all exports:
☐ less than 1% ☐ 1-3% ☐ 4-6% ☐ 7-10% ☐ 11-15% ☐ 16-20%
☐ other______________ (please specify)

### 7.5. How has 9/11/2001 changed your costs?

Production costs of your exports:

☐ increased by___% ☐ decreased by___% ☐ did not change

Transportation costs of your exports:

☐ increased by___% ☐ decreased by___% ☐ did not change

Freight insurance costs:

☐ increased by___% ☐ decreased by___% ☐ did not change

Other costs:

☐ increased by___% ☐ decreased by___% ☐ did not change

### 7.6. How much has the final selling price of your exports changed after 9/11/2001?

☐ increased by___% ☐ decreased by___% ☐ did not change

## COSTS: IMPORTER'S SECTION

### 8. If you are an importer:

### 8.1. What percentage represents the original price (received by the seller of the goods) in the total costs of your imports?

Average for all imports: ☐ 1-50% ☐ 50-60% ☐ 60-70% ☐ 70-80%
☐ 80-90% ☐ other ____ (please specify)

### 8.2. What percentage represents transportation costs of in the total costs of your imports?

Average for all imports: ☐ < 1% ☐ 1-3% ☐ 4-7% ☐ 8-14%
☐ 15-20% ☐ other ____ (please specify)

### 8.3. What percentage represents freight insurance costs of in the total costs of your imports?

Average for all imports: ☐ < 1% ☐ 1-3% ☐ 4-5% ☐ 6-10%
☐ 11-15% ☐ other ____ (please specify)

**8.4. Do any other costs contribute to the total costs of your imports?**

☐ yes ☐ no

**If yes, please specify the percentage of these other costs in the total costs of your imports:**

Average for all imports:

☐ < 1% ☐ 1-3% ☐ 4-6% ☐ 7-10% ☐ 11-15% ☐ 16-20%

☐ other _____ (please specify)

**8.5.How has 9/11/2001 changed your costs?**

<u>The original prices of imports:</u>

☐ increased by____% ☐ decreased by____% ☐ did not change

<u>Transportation costs of imports:</u>

☐ increased by____% ☐ decreased by____% ☐ did not change

<u>Freight insurance costs:</u>

☐ increased by____% ☐ decreased by____% ☐ did not change

<u>Other costs:</u>

☐ increased by____% ☐ decreased by____% ☐ did not change

**8.6. How much have the total costs of your imports changed after 9/11/2001?**

☐ increased by____% ☐ decreased by____% ☐ did not change

**COSTS: GENERAL**

**<u>9. Costs sharing:</u>**

**<u>If you are exporting goods to Canada /U.S.:</u>**

<u>Transportation costs are paid by:</u>

☐ your company includes delivery

☐ your Canadian (American) partner

☐ costs are shared (e.g. your selling price to the warehouse at the border)

**If you are importing goods from Canada /U.S.:**

Transportation costs are paid by:

☐ your company includes delivery

☐ your Canadian (American) partner

☐ costs are shared (e.g. your selling price to the warehouse at the border)

**10. The nature of other costs : How was your firm affected by the new security measures (policies) at the border?**

☐ Time of waiting at the border has increased. If yes, please specify, by how much (in %) ________

☐ Purchase of new inventory

☐ Time for preparing accompanying documentation for shipments has increased.
If yes, please specify, by how much (in %) ________

☐ Additional time was needed to educate staff about new policies

☐ Had to hire an additional export/import manager(s)

☐ Other (please specify)

________________________________________

________________________________________

________________________________________

________________________________________

IMPACT OF 9/11

**11. How has the firm's performance changed in the last 3 years after 9/11?**

**Volume of exports** (if you are an exporter):
☐ increased by____% ☐ decreased by____% ☐ did not change

**Volume of imports** (if you are an importer):
☐ increased by____% ☐ decreased by____% ☐ did not change

**Profits:**________________________
☐ increased by____% ☐ decreased by____% ☐ did not change

**Other changes** ________________________________

________________________________________

________________________________________

**12.1.Have you experienced a change in demand for the goods you export?** ☐ yes ☐ no ☐ n/a

If yes, please choose: ☐ demand increased ☐ demand decreased

**12.2. Has your demand for the goods you had earlier imported changed after 9/11?** ☐ yes ☐ no ☐ n/a

If yes, please specify the reason: ☐ increased costs ☐ other

______________________________________________

______________________________________________

**13. What organizational changes have been made in the last 3 years in your firm?** (check all that apply)

☐ Security assessment ☐ Staff training ☐ New workers hired
☐ Workers laid off
☐ Other changes (please specify)

______________________________________________

______________________________________________

**14. Did you have to change your distribution policies in order to adjust to the new situation?**

**If yes, please specify the measures taken:**
☐ Purchase of new inventory for the firm
☐ Change of the usual trade route (moving shipments to border crossings that have lower wait times)
☐ Timing cross-border shipments when wait times are lowest
☐ Change of the mode of shipping to minimize wait times
☐ Other changes (please specify)

______________________________________________

______________________________________________

**15. How would you modify/change/develop the existing border policies to make them more efficient for your firm? (Please describe your suggestions)**

______________________________________________

______________________________________________

______________________________________________

______________________________________________

______________________________________________

______________________________________________

______________________________________________

**16. Are there any other comments you would like to share with us?**

**Would you be available to discuss your comments over the phone/ via e-mail?**

If yes, please specify your contact telephone number/e-mail address:

*Thank you for participating in this survey!*

## NOTES

[1] All figures in the text are in U. S. dollars.

[2] http://www.canadianembassy.org/trade/wltr-en.asp

[3] See CUSP Forum Report (2000).

[4] The survey was also made available on a website at www.umaine.edu/canam/

[5] As explained earlier in the methodology, firms answered by choosing ranges. Therefore, the average value for each category was used and then weighted by the number of firms choosing that category. Hence, these numbers are weighted averages.

[6] See Canada Border Services Agency (2004). "The Free and Secure Trade (FAST) program."

[7] See The White House (2002). "United States - Canada Nexus Program."

[8] 52.5% of firms mentioned that transportation costs *did not change* and 4.5% of firms did not answer this question. As for freight insurance costs, 72.3% of firms mentioned *did not change* and 3.7% of them did not answer the question. For the different categories of "Other" costs (see Figure 3), all participants either mentioned unchanged or higher costs or didn't answer.

[9] Since the attacks took place on American soil, it seems natural that the American side is a greater proponent of new security enhancements.

[10] As mentioned in section 2, we aggregated trade flows according to their destination: The *Shipping to the U. S.* group includes Canadian exports and American imports, and, correspondingly the *Shipping to Canada* group includes American exports and Canadian imports Table 2 in section 2 gives the details of these shipments by destination.

[11] For more details on that result see Sandler *et al.* (1983) and Im *et al.* (1987). Also, for a good review on substitution efforts in transnational terrorism see Enders and Sandler (2003).

[12] Some firms in our sample reported more than 100% increases in time needed to prepare documentation.

[13] Also one might argue that the higher cost increase for large firms could be explained not only by the volume of documents but also by their variety. The new security policies require different documents for different types of goods. It is likely that large firms have more different types of products which they trade than small firms. Unfortunately, we do not have data on the variety traded by large and small firms.

## CANADIAN-AMERICAN PUBLIC POLICY

*Occasional papers on a wide range of issues in U.S.-Canadian relations*

CAPP 1: April 1990 — **Canada-U.S. Relations in the Bush Era**
Joseph T. Jockel

CAPP 2: July 1990 — **Transboundary Air-Quality Relations: The Canada-United States Experience**
John E. Carroll

CAPP 3: October 1990 — **Canadian Culture, the Canadian State, and the New Continentalism**
Allan Smith

CAPP 4: December 1990 — **Forests, Timber, and Trade: Emerging Canadian and U.S. Relations under the Free Trade Agreement**
Thomas R. Waggener

CAPP 5: March 1991 — **Change and Continuity in Canada-U.S. Economic Relations**
William Diebold

* CAPP 6: June 1991 — **Trade Liberalization and the Political Economy of Culture: An International Perspective on FTA**
Graham Carr

CAPP 7: September 1991 — **If Canada Breaks Up: Implications for U.S. Policy**
Joseph T. Jockel

* CAPP 8: December 1991 — **Ogdensburg Plus Fifty and Still Counting: Canada-U.S. Defense Relations in the Post-Cold War Era**
Joel J. Sokolsky

* CAPP 9: March 1992 — **The Regulation of U.S.-Canada Air Transportation: Past, Present and Future**
Martin Dresner

* CAPP 10: June 1992 — **Emerging Issues in the U.S.-Canada Agricultural Trade Under the GATT and FTA**
Theodore H. Cohn

* Out of print

CAPP 11: September 1992 — **Settling U.S. - Canada Disputes: Lessons For NAFTA**
Annette Baker Fox

CAPP 12: December 1992 — **Canada-U.S. Electricity Trade and Environmental Politics**
William Averyt

CAPP 13: June 1993 — **Canadian Politics in a Global Economy**
Gordon T. Stewart

CAPP 14: September 1993—**The Intersection of Domestic and Foreign Policy in the NAFTA Agricultural Negotiations**
Theodore H. Cohn

CAPP 15: November 1993—**A New Global Partnership: Canada-U.S. Relations in the Clinton Era**
John Kirton

CAPP 16: December 1993 — **The Impact of Free Trade on Canadian- American Border Cities**
Peter Karl Kresl

CAPP 17: April 1994 — **North American Social Democracy in the 1990s: The NDP in Ontario**
Mildred A. Schwartz

CAPP 18: August 1994 — **The Politics of Health Care Reform in Canada and the United States**
Antonia Maioni

CAPP 19: October 1994 — **Public Policy and NAFTA: The Role of Organized Business Interests and the Labor Movement**
Henry J. Jacek

CAPP 20: December 1994-- **The Secret of Transforming Art Into Gold: Intellectual Property Issues In Canada-U.S. Relations**
Myra J. Tawfik

CAPP 21: January 1995--**Anticipating The Impact of NAFTA on Health And Health Policy**
Pauline V. Rosenau, Russell D. Jones, Julie Reagan Watson and Carl Hacker

CAPP 22: June 1995--**Regulation, Industry Structure, and the North Atlantic Fishing Industry**
Peter B. Doeringer, David G. Terkla and Audrey Watson

* CAPP 23: November 1995--**The Moral Economy of Health and Aging in Canada and the United States**
Phillip G. Clark

CAPP 24: December 1995--**Multilateralism or Bilateralism in the Negotiation of Trade-Related Investment Measures?**
Elizabeth Smythe

CAPP 25: February 1996--**The Abortion Controversy in Canada and the United States**
Raymond Tatalovich

CAPP 26: May 1996—**Health Care Reform or Health Care Rationing? A Comparative Study**
Joan Price Boase

CAPP 27: September 1996—**Resolving The North American Subsidies War**
Peter Morici

* CAPP 28: December 1996—**Calling Maggie's Bluff: The NAFTA Labor Agreement and the Development of an Alternative to Neoliberalism**
Stephen Herzenberg

* CAPP 29: April 1997—**The Long Journey to Free Trade in U.S.-Canada Airline Services**
Michael W. Pustay

CAPP 30: July 1997—**Are Canadian and U.S. Social Assistance Policies Converging?**
Gerard Boychuk

CAPP 31: November 1997—**Observing the Rules: Canada-U.S. Trade and Environmental Relations**
Annette Baker Fox

CAPP 32: December 1997—**Flights of the Phoenix: Explaining The Durability of the Canada-U.S. Softwood Lumber Dispute**
Benjamin Cashore

* Out of print

CAPP 33: February 1998—**Transboundary Fishery Resources and the Canada-United States Pacific Salmon Treaty**
Gordon Munro, Ted McDorman and Robert McKelvey

CAPP 34: April 1998—**Franchising the Candy Store: Split-Run Magazines and a New International Regime for Trade in Culture**
Ted Magder

CAPP 35: September 1998—**Fearful Asymmetries: The Challenge of Analyzing Continental Systems in a Globalizing World**
Stephen Clarkson

CAPP 36: November 1998—**A Not So Magnificent Obsession: The United States, Cuba, and Canada from Revolution to the Helms-Burton Law**
Stephen J. Randall

CAPP 37: February 1999—**Scientists and Environmental Policy: A Canadian-U.S. Perspective**
Leslie R. Alm

CAPP 38: March 1999—**The Mouse That Roared? Lesson Drawing on Tobacco Regulation Across the Canada-United States Border**
Donley T. Studlar

CAPP 39: July 1999—**Unwarranted Hopes and Unfulfilled Expectations: Canadian Media Policy and the CBC**
Joel Smith

CAPP 40: October 1999—**Cross-Border Travel in North America: The Challenge of U.S. Section 110 Legislation**
Theodore H. Cohn

CAPP 41: February 2000—**Who Decides What? Civil-Military Relations in Canada and the United States**
Douglas L. Bland

CAPP 42: July 2000—**Should the Log and Wood Products Trade by Regulated in the Northeastern Borderlands?**
Lloyd C. Irland

CAPP 43: September 2000—**The Comparative Politics of Military Base Closures**
Lilly J. Goren and P. Whitney Lackenbauer

CAPP 44: December 2000—**Doing the Continental: Conceptualizations of the Canadian-American Relationship in the Long Twentieth Century**
Allan Smith

CAPP 45: April 2001—**North American Smog: Science-Policy Linkages Across Multiple Boundaries**
Debora L. VanNijnatten and W. Henry Lambright

CAPP 46: August 2001—**Washington's Response to the Ottawa Land Mines Process**
Christopher Kirkey

CAPP 47: October 2001—**The 1999 Pacific Salmon Agreement: A Sustainable Solution?**
Kathleen A. Miller, Gordon R. Munro, Ted L. McDorman, Robert McKelvey, Peter Tyedmers

CAPP 48: December 2001—**From Public Good to Private Exploitation: GATS and the Restructuring of Canadian Electrical Utilities**
Marjorie Griffin Cohen

CAPP 49: January 2002—**NAFTA 2002: A Cost/Benefit Analysis for the United States, Canada, and Mexico**
Earl H. Fry and Jared Bybee

CAPP 50: April 2002—**North American Transjurisdictional Cooperation: The Gulf of Maine Council on The Marine Environment**
Allen L. Springer

CAPP 51: November 2002—**Fact or Fiction? The Canadian Medicare "Crisis" as Viewed From the U.S.**
Theodore R. Marmor *et al.*

CAPP 52: December 2002—**North America Beyond NAFTA? Sovereignty, Identity, and Security in Canada-U.S. Relations**
Stephanie R. Golob

CAPP 53: March 2003—**Comparing Forest Certification in the U. S. Northeast and the Canadian Maritimes**
Benjamin Cashore and James Lawson

CAPP 54: September 2003—**Perspectives on U.S.-Canada Relations Since 9/11: Four Essays**
Howard Cody, Martin Lubin, Donald Cuccioletta and Marie-Christine Therrien

CAPP 55: November 2003—**Symbolic Tokenism in Canada-U.S. Cultural Sector Trade Relations**
Jason Bristow

CAPP 56: December 2003—**"Internationalization" and the Conservation of Canada's Boreal Ecosystems**
Jeremy Wilson

CAPP 57: August 2004—**Political Economy of the U.S.-Canada Softwood Lumber Dispute**
Joseph A. McKinney

CAPP 58: September 2004—**Comparing Local Cross-Border Relations Under the EU and NAFTA**
Emmanuel Brunet-Jailly

CAPP 59: October 2004—**Toward Deeper North American Integration: A Customs Union?**
Axel Huelsemeyer

CAPP 60: December 2004—**Boundaries and Corridors: Rethinking the Canada-United States Borderlands in the Post-9/11 Era**
Victor Konrad and Heather Nicol

CAPP 61: January 2005—**Federalism Matters: Welfare Reform and the Inter-governmental Balance of Power in Canada and the United States**
John Harles and Jamie Davies

CAPP 62: April 2005—**Municipal Consolidation Quebec Style: A Comparative North American Perspective**
Richard Vengroff and Robert K. Whelan

CAPP 63: July 2005—**Lies, Damned Lies, and Trade Statistics: North American Integration and the Exaggeration of Canadian Exports**
Erin M. K. Weir

CAPP 64: December 2005—**The Impacts of 9/11 On Trade Costs: A Survey**
Georges Tanguay and Marie-Christine Therrien

# CONTENTS

## CANADIAN-AMERICAN PUBLIC POLICY

*Occasional papers on a wide range of issues in U.S.-Canadian relations*




ISSN 1047-107