Secure Borders and Uncertain Trade

by Coral R. Snodgrass, Canisius College
and Guy H. Gessner, Canisius College

Abstract

The events of September 11, 2001 have resulted in a substantial change in the intent of US government policies concerning the Canadian-US border, away from an open border perspective toward the intent to highly control and secure the border. For managers on both sides of the border tasked with overseeing the functioning of the supply chains connecting their cross border operations, this change in border policies has led to a rethinking of supply chain strategies.

INTRODUCTION

The theme of this conference is “Access, Boundaries and Cooperation.” Our project looks at the functioning of supply chains across the Canada-US border. Unfortunately, this has been an area of decreasing access, thickening boundaries and, until recently, very little meaningful cooperation. This state of affairs represents a 180 degree shift in thinking about the Canada-US border and the importance of its smooth functioning to the economies of these two partners in what is still the largest bi-lateral trade relationship in the world. This change in perspective, especially on the part of US policy makers, can be viewed primarily as the result of the terrorist attacks of September 11. 2001.

Our project examines the decision making of managers who make the day-to-day decisions supporting this trade relationship. There has been much work done on the macro level of broad national policies and gross trade figures to describe the health of the relationship between Canada and the United States in general. This project is designed to examine the micro level of one very specific aspect of that relationship, i.e., the decisions made by the buyers and sellers in the links of the supply chains that support this massive movement of goods and, to a growing extent, services across what used to be the “longest undefended international border in the world”.

OVERVIEW OF THE CANADA-US RELATIONSHIP

Trade between Canada and the United States

This research project is designed to examine the functioning of supply chains across the Canada-US border. In order to begin, a few statistics about this trade will provide some context. First of all, it is important to note that the trade between Canada and the US is massive. In 2010, $645.7 billion (Canadian) in goods and services crossed the border. That breaks down to about $1.8 billion each day. The Canadian government estimates that 1 in 7 Canadian jobs depends on the trade with the US. On the US side, 8 million jobs depend on this trade. The trade figures for 2010, while slightly off the all-time highs seen in 2008, are on the rebound. There also seems to be a decline in the dependence of Canada on trade with the US as the percentage of total Canadian imports and exports with the US declined from 75% in 2005 to 68% in 2009. (all figures from www.statcan.gc.ca).

The content of that trade is fairly stable. The US sends Canada vehicles, machinery and electrical equipment. Excluding energy, Canada sends the US the same. Much of that can be explained by the fact that approximately 45% of the trade is intrafirm, i.e., subsidiaries of the same firms sending subcomponents back and forth across the border. This is very characteristic of the supply chains linking industries across the two countries, especially the highly integrated supply chains in the automotive industry, located primarily in Ontario, Michigan, Ohio and New York. These interdependent linkages have grown substantially since the Auto Pact went into effect in the 1960’s. The sheer intensity of the interdependency of these supply chains can be understood by noting that some of the components in the assembly of an automobile can cross the border as many as seven times before final assembly (Canadian Chamber of Commerce, 2009). This is clearly an area where managers might feel the need to make some changes in the design of these supply chains.

There are also examples of intrafirm trade in other industries, such as processed foods. From the manager’s perspective, the degree to which the links in their supply chains are part of the same corporate family may decrease the flexibility of their choices and impact the nature of the choices made. As an example, while the Ontario apple growers may choose to find new customers, an assembly plant in Windsor making subcomponents in the auto industry may not be able to choose to sell those subassemblies to a different “buyer”. But the buyer might choose to impose some cost or delivery constraints. At that point the manager in Windsor might decide it is time to move to Michigan or at least to build a warehouse in Michigan.

Another aspect of the trade relationship that is often mentioned as a critical element is the fact that Canada is the largest provider of energy to the United States. Canada is the largest supplier of foreign oil, electricity, natural gas and nuclear fuel. This fact combined with the importance of the automotive industry helps to explain the variations in the value of Canada-US trade. It is thought that the year-to-year changes in the value of Canada-US trade can in large part be accounted for by noting the weakening of the automotive sector and volatile energy prices. Thus the changes would not reflect the results of strategic shifts in the design of the supply chains.

The Political Environment of Canada-US Trade

The history of the political relationship between Canada and the United States throughout the 20th century is one of close cooperation and integrated views of appropriate international involvement. As examples, Canada and the United States were early members of the United Nations and the North Atlantic Treaty Organization. Canada and the United States developed NORAD in 1958 to provide for the security of North America. The political atmosphere of trust and mutual regard for the future set the stage for the economic integration through the Canada-US Free Trade Agreement in 1988 and the North American Free Trade Agreement (NAFTA) in 1994. All signals from the political arena were that cozy economic and commercial networks were in no danger of being outlawed.

Unfortunately, the events of September 11, 2001 marked a change in the thinking of policy makers in the US. Specifically as this thinking applied to Canada, the fears of the chance of any future attacks and the mistaken belief that the 9/11 terrorists had come from Canada led to a very dramatic change in how the US policy makers viewed the border and anything that crosses it. Statements such as the much quoted one by then US Ambassador Paul Cellucci that “Security will trump trade” seemed to sum up the US attitude about the border. It appears that this was not just rhetoric. Under George W. Bush, the Department of Homeland Security was formed. The Department has undertaken a series of measures aimed at “thickening” the border around the United States.

In reaction to the need to provide for better security at the border while still facilitating cross border activity, a number of programs were established. The Smart Border Accord established a series of steps designed to keep the border working. It provided for programs such as Free and Secure Trade (FAST) to certify truck drivers across the border and NEXUS for trusted travelers crossing by car, truck or train. Customs-Trade Partnership Against Terrorism (C-TPAT) would provide clearance for goods. These programs all came at substantial costs. The Atlantic Provinces Trucking Association estimates that the trucking industry in Canada is paying $1 billion per year to comply with these new programs. They estimate that C-TPAT compliance alone can cost a company as much as $300,000 (Penty, 2009). Balanced against this are estimates from the Canadian government that inefficiencies at the Canada-US border account for a 1% decline in Canadian GDP or $1.6 billion in 2010.

Although border security seems to dominate the discussion about Canada-US trade, there are other important political issues to consider. As an example, labeling laws continue to be a problem under the “rules of origin” requirements of NAFTA. The result of these rules is an onerous documentation requirement for all those goods crossing the border. This becomes exacerbated when one considers those automotive subcomponents that cross the border seven times. Similarly, the US Department of Agriculture requires country of origin labels for imported food products. This has resulted in a decrease in the exports of Canadian cattle and hogs to the United States. In this case, it is not because the meat is considered “unsafe” (as it was during the “mad cow” scare). It is because US importers do not want to do the paperwork. For them, it is easier to find a domestic supplier (Armstrong, 2009).

The Socio-Economic Environment

Changes in cross border trade cannot be understood just in terms of increased border security. The good news is that a number of studies indicate that the changes in trade are not related to increased border security (Burt, 2007; Goldfarb, 2007). While it is not the intent of this project to provide an exhaustive discussion of all aspects of the external environment of decision makers in global supply chains, it is important to note two aspects of the socio-economic environment that form an important backdrop. First of all, the United States is in a recession. According to a study sponsored by the Conference Board of Canada, the decline in US household spending has actually led to a contraction in global trade – the first in 60 years (Atunes, 2009)! As was noted, a vast majority of Canadian exports to the United States are in automotive, food and wood products. These three sectors have been very negatively impacted by the decline in the US economy. One way this decline has shown up in consumption figures is a precipitous drop in household spending. As residents in the United States are cutting back, they are buying less expensive food, not buying new cars and not building new houses. Taking the drop in housing starts as an example, this has led to a drop in the demand of wood and wood products. Canada is a major supplier of these products when housing is being built. So, they suffer substantially when houses are not being built. As a matter of fact, the Conference Board predicted that the declines in domestic demand coupled with the decrease in exports would lead to a 1.7% decrease in real GDP in 2009.

The second point to make concerns the strength of the Canadian dollar. The Canadian dollar has strengthened against the US dollar over the early part of the 21st century. Some preliminary economic research has indicated that these changes have not had a negative impact on cross border trade (Sundell & Shane, 2006). However, managers often cite exchange rates as a major factor in their decisions concerning supply chain partners (Gessner & Snodgrass, 2005). Consequently, the impact of the changes in the exchange rate should be kept in mind as behaviors of supply chain managers are studied.

The “Reality” of the Border

Both the recession and the exchange rate are outside the control of individual managers and for most managers consideration of them is not part of their daily reality. What is real is the border. Anyone who lives within a few miles of any of the important border crossings between Canada and the United States is very familiar with the headlines and stories about what is happening at the border. “Border Crossings Slide” declares Buffalo Business First in an article decrying the decline in US customers at Niagara Falls, Ontario hotels, casinos and theater (Fink, 2009). “New Rules Crimp Canada Ties” laments The Buffalo News in an article on the impact of the new border rules that have led to a drop in trips across the Peace Bridge – conceivably for the first time in its 82 year history (Fairbanks & Hayden, 2009). The article does go on to say that the recession and lousy weather may also have had an impact. “Border laws taking toll on business, groups say” reports on the joint efforts of the Canadian and American Chambers of Commerce to influence US policy makers (Zremski, 2009).

But it is not just the owners of bed & breakfasts, restaurants and tourist attractions who are seeing the negative impact of border security. Supply chain managers are also feeling the impact. As mentioned before, the costs of compliance with the border management programs such as FAST and C-TPAT are significant. It is also necessary for shippers to be members of programs on both sides of the border. These requirements plus the costs of border delays can cost a company as much as $1 million per year. The costs of the border are also combined with the paperwork burden that comes from such requirements as the “rules of origin” under NAFTA. Some transportation companies such as Purolator Corporation publish white papers to try and help customers prepare for the challenges of dealing with the Canada-US border. Other transportation companies have added accessorial charges to cover the additional costs of crossing the border. A study by the Canadian and American Chambers of Commerce (2009) cites the example of automotive industry and its integrated supply chains in North America. They compare the paperwork burden for a shipment of 4,000 fully assembled foreign cars into the United States. That shipment would require one customs clearance form. A shipment of 4,000 vehicles that are assembled in Canada and the United States – therefore crossing the Canada-US border as many as seven times until final assembly – would require as many as 28,000 customs and security clearance forms. And the cost burden of that does not even count the costs of border delays!

The point is that the core of the relationship between Canada and the United States seems to be defined in terms of the border. Changes in that relationship are manifest in changes in border policy. Changes in cross border business result from these changes in border policy. These changes are critical for Canadian managers. As an example, in 2005 as much as 38% of Canadian GDP was exports and 34% of GDP was imports. Canada is an exporting nation and exports mean there is a border. But historically the United States is not really a trading nation. So, the decision variables of US managers in cross border supply chains are not necessarily the same as those of their Canadian partners. The next part of this paper will explore the US side of the supply chains.

US PURCHASING MANAGERS AND THEIR CANADIAN SUPPLIERS

In the supply chains that cross the Canada-US border, many of the decisions about managing the relationships are made by the US Purchasing Managers who represent the large customers assembling subcomponents from their Canadian suppliers. One of the issues for Canadian suppliers in their relationship with their US customers is the fear that increased border security would negatively impact their "attractiveness" as suppliers because the costs of compliance with border security programs are so high and the delays at the border would lead to volatility in their delivery schedules. Macro level research on variations of trade volumes as a function of increased border security indicates there has not been a negative impact on trade between Canada and the United States (Burt, 2007).

Another study examined the question of whether or not the impact of heightened border security has just not shown up yet (Goldfarb, 2007). This study also indicated that there had not been a decrease in Canada-US trade related to increased border security. However, the report also indicated that the Canadian firms in the study had seen increased costs related to the need to comply with new border security programs and they had assumed those costs internally. Thus the US customers had not seen an increase in their costs of supplying out of Canada and were therefore not motivated to change suppliers. However, the Canadian suppliers were realizing lower profit margins.

Our study examined the decision making of US Purchasing Managers regarding their Canadian suppliers (Gessner & Snodgrass, 2005). Their responses indicate that exchange rates were their most important factor in deciding to use Canadian suppliers (45% of respondents). Clearly costs are paramount on their minds. Their second reason is the opportunity to develop new business (34% of respondents). These US Purchasing Managers view their supply chain partners as assets to be used for their long term viability. Traffic problems (11%) and security issues (3%) were not viewed as problems for the US managers.

The US Purchasing Managers were also asked about their perceived impact of increased border security. Only 24% reported a noticeable impact and 3% a great impact on their cross border business. They were also asked about the cost impact of increased border security. Their responses show that 53% thought the impact was less than 1% or none while another 18% of the respondents didn't know. When asked about specific problems related to the border, 59% of the respondents cited longer wait times as the number one problem. When asked what they planned to do to solve any problems related to the functioning of their cross border supply chains, 35% of the respondents indicated they would seek a domestic supplier. The triggers for their decisions indicate that 59% of the respondents were concerned that longer waiting times at the border would lead to difficulty in maintaining Just-In-Time schedules and would increase inventory costs.

The conclusions to be drawn from these studies for Canadian Managers are not discouraging but they do indicate the need for some strategic rethinking. Clearly, there has not been an immediate change in the supply chains across the Canada-US border related to the increased border security requirements. Trade between the two countries is still robust. Changes in the volume of trade seem to be related more to the wider economic forces related to the recession in the United States and the wider impact of that economic decline. Further, it is the case that much of the trade across the border is intrafirm trade supported by supply chains that are not expected to change quickly. However, there are concerns that even those supply chains may hit a “tipping point” at which changes would be made. Further, it seems that one of the reasons that US Purchasing Managers have not made changes is because their Canadian suppliers are bearing the costs of compliance with border security programs.

It would appear from this research that US Purchasing Managers are concerned about timely delivery as well as total delivered cost. Both of those variables are subject to negative impact from border issues in terms of both border delays and costly compliance. If those two variables become problems, it is clear that US Purchasing Managers will seek domestic suppliers. It also can be deduced from these studies that US Purchasing Managers believe it is the task of the Canadian Suppliers to make this work.

The implications for Canadian firms are that they need to begin to develop strategies to secure their place in their supply chains. This might include actions designed to integrate them further into North American supply chains. Or it might require a rethinking.

CANADIAN SUPPLIERS AND THEIR US CUSTOMERS

In order to examine the reactions of Canadian managers, we undertook a small study to ask about their relationships with their US customers. The size of the data base does not allow for rigorous statistical testing. However, there are some interesting findings that are worth mentioning. First of all, the responses confirm the importance of total delivered costs to their success. All of the respondents indicated that total delivered costs were either critical (70%) or very important (30%) to their ability to maintain their customers. Timely deliveries across the border did not seem as important.

The second interesting result is that there does not seem to be much movement in the geographic makeup of these firms' supply chains. By and large, they are located and competing in Canada and the United States. There was very little indication that even Mexico was figuring into their decision making. The respondents do, however, find the threat of low cost competition to be either critical (9%) or very important (64%) to their ability to compete globally.

The third interesting result is the fact that the respondents found Canadian government regulations – either the multiple jurisdictions within Canada or the differences between Canada and other countries – to be critical (45% and 36%) or very important (19% and 27% respectively).

It may be speculated that some of these results are a function of the fact that the respondents are firms dealing directly at the Canada-US border and they have a constrained market reach. Nonetheless, they provide some direction for future research.

DIRECTIONS FOR FUTURE RESEARCH

During the development of the background research for this project, a number of key events occurred. On February 4, 2011 Barack Obama and Stephen Harper issued a joint declaration on a "Shared Vision for Perimeter Security and Economic Competitiveness." The declaration affirmed the importance of trade to the Canadian and US economies and recognized the need to find ways to make the border work. On December 7, 2011, these same two gentlemen announced the agreement on two action plans: The Action Plan on Perimeter Security and Economic Competitiveness and the Action Plan on Regulatory Cooperation. The first Action Plan addresses key problems at the border and aims to facilitate legitimate border crossings while also increasing security. The first key element of this action plan designed to alleviate problems at the border are new screening procedures for international shipments at the first port of entry under the "Cleared once, accepted twice" concept. This would eliminate the present requirement to rescreen shipments. The second feature calls for expanded membership in such trusted traveler and trader programs as NEXUS and FAST. The third calls for infrastructure improvements to help make these programs work – such as expanded number of NEXUS lanes. Action plans such as those proposed should take much of the burden off of the actual Canada-US border crossing and move the border out to the perimeter of North America.

CONCLUSION

Our study was undertaken to examine the decision making of US and Canadian managers concerning their global supply chains in the face of increased security at the Canada-US border. The results from the US managers indicate that they are shifting the burdens of security compliance to their Canadian suppliers. The problem for the Canadian Suppliers is that there is no clear answer as to the best course of action they can take to maintain their positions in their existing supply chains or the ones they want to develop. So while policy makers on both sides of the border work out the details of border management routines designed to facilitate trade, Canadian Managers are going ahead with whatever they have to do to stay in business. Two articles from the Buffalo News tell of a logistics firm from Toronto opening a facility in Wheatfield, near Buffalo, New York and of another machine tool company moving its factory from Cambridge, Ontario to Wheatfield (Glynn, 2010; Prohaska, 2009). It is these operational level decisions by the managers in the trenches of global supply chain management that will provide the best information on the shape these supply chains will take in the future.

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