

Gateways and Canada's Ports Policy: Issues and Impediments

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ABSTRACT

Gateways and trade corridors have occupied North American thinking in recent years as businesses struggle to compete in the global trading environment. In the past year, the issue has come to the fore on the east coast of Canada, and there has been much discussion about the promise of an Atlantic Gateway. This paper begins by examining the issue of gateways and trade corridors in general, and the Atlantic Gateway in particular. It draws on three recently published studies examining the Atlantic Gateway as a potential infrastructure investment, and seeks to explore the issues and impediments surrounding the development of the gateway. It then moves to explore port governance in Canada and, more specifically, the issues of port governance that support or impede the development of gateways, and in particular the Atlantic Gateway. Port governance issues are not the only ones influencing gateway development on the east coast, and the paper will conclude by examining other regulatory barriers and administrative governance structures that influence gateway and corridor effectiveness in global supply chains serving North America.

INTRODUCTION

Gateways and trade corridors have occupied North American thinking in recent years as North American businesses struggle to compete in the global trading environment. Over the past three years, the Washington-based Transportation Research Board's Annual Meetings have prominently featured discussions on the failure of US ports to fully manage the phenomenal growth of Asian trade in the peak shipping season (July to November); speakers repeatedly refer to the meltdown of service at Los Angeles and Long Beach in 2004's peak shipping season as a prime illustration of what the future holds. Wen (2006) reported that ships were unable to offload cargo for up to eight days; the impact of delays in getting to berth was simply untenable in the modern shipping environment, given the capital cost of vessels trapped in waiting. Global Insight (Hackett, 2006) reported on the growth, indicating that North America was more important to China than the reverse and, in setting the scene for the global audience, highlighted the importance of port investments to service this trade. As this paper

is late in this program, by now it is likely that many speakers before me have laid the foundation for understanding that the global trade patterns have shifted dramatically and that North America's access points, or gateways, are under stress to handle the burgeoning growth in import traffic.

In the past year, the efforts of ports and key transport inland networks (corridors) to secure a larger share of Asian trade have finally captured the attention of the Canadian public. The announcements of investments by Prince Rupert's stakeholders in building a new container terminal, by Maersk and Virginia Ports in developing the new APM terminal in Norfolk and its related infrastructure, and by the Panama Canal Authority in building its new locks, among others, have put pressure on transport infrastructure providers to support gateway developments, not just in the western part of Canada but across the continent. Every major city on a potential trade corridor has its vision of offering transload facilities and other value-added activities. The clamour by local development agencies to recognize the needs of their "gateway" or their ability to be a critical node on the trade corridor has become deafening.

The east coast of Canada has found its voice as well, and there has been much discussion about the promise of an Atlantic Gateway. The federal government, having already provided a significant financial contribution to the Pacific Gateway Council—by providing targeted funding in support of the new container terminal facilities at Prince Rupert—has encouraged that voice by providing financial assistance through ACOA to support the APEC (2006) Atlantic Gateway study, and the current "Business Case" project, as well as earlier funding to assist the newly formed Halifax Gateway Council to develop its strategic plan and marketing vision. This paper explores the issue of gateways and trade corridors in general, and the Atlantic Gateway in particular, intending to evaluate the governance issues that foster gateway development. There have been three studies recently published examining the Atlantic Gateway as a potential infrastructure investment, and it is with these studies that the paper begins.

THREE STUDIES ON THE ATLANTIC GATEWAY

Three studies (CPCS Transcom, 2006; McMillan, 2006; and APEC, 2006), each with a particular perspective, have looked at the opportunity for Atlantic Canada to enter a new era as a key gateway for North America's (including Canada's) trade with Asia. These studies have all been released in the last six months. Underpinning all three is the recognition that, in part, the future economic prosperity of Canada will depend upon ensuring that Canadian ports have the ability to serve as access points (or gateways) for continental trade and for Canadian suppliers of transportation services to participate in continental opportunities. It is not as though Canada, on its own, has the population to drive sufficient economic growth; the specialization of the Canadian economy in a globalized world means Canada's fortunes are inextricably tied to those of its southern neighbor—the United States, and to the increasingly specialized trade opportunities with the rest of the world.

Each of these studies casts what is "known" about the Atlantic opportunity in a somewhat different light. APEC (2006) provides a highly balanced view from an Atlantic Canadian perspective, looking at the needs of the region, current and future traffic demands (all modes) and then focusing on the container trade

opportunity in particular. The rest of this paper draws significantly on the findings of the APEC study and so it will be a thread through the paper.

CPCS Transcom (2006) walks a fine political line, making sure that there is something for each of the three port constituencies in Nova Scotia. Funded by the Province of Nova Scotia, it paints the Gateway as broader than just container trade, with sections on cruise and air cargo and air passenger opportunities. It suggests, for example, that Canso (Port Hawkesbury) is a credible container terminal opportunity (even though Halifax's capacity is underutilized) and that the international air policy regulations need to be changed, even though there is good progress on this issue and the regulations are the purview of federal not provincial politicians. It argues that Sydney has the opportunity to develop the cruise business, as so do many other locales. By trying to find something for everyone, it mutes the message that a rising tide lifts all boats (for those who have boats); a "little something for everyone" means a lack of strategic focus. As is clear from Government of Canada (2006), strategic focus is what is needed to secure Canadian gateway and corridor opportunities. CPCS Transcom (2006) also managed to deliver the message that Atlantic Canada cannot agree on what is needed, a message that is simply not true. The regional business community sees the opportunities but realizes that these investment decisions are not local decisions; just as the cargo interests that influence those decisions are not local ones.

One of the CPCS Transcomm (2006: 1-11) conclusions is critical here—the need for government to “create an environment where appropriate actions are encouraged, combined with a commitment to do so consistently over time ... [and] within a predictable, sustainable and fair regulatory framework.” The importance of governance is thus underscored.

McMillan (2006) examines the gateway issues in the context of global supply chains and the decision processes they embody. This further underlines one of the critical factors in gateway development in Atlantic Canada: the principal decision-makers and beneficiaries are located outside the region. While the report touches briefly on the stakeholders' interests in an Atlantic gateway, it stops short of providing guidance on what infrastructure is needed, who will pay for it and where it should be built. It also concludes that universities are strategic partners in the process without detailing a role for them.

The findings of these research projects are not entirely consistent and the public policy perspectives need further development. For example, CPCS Transcom (2006) talks about market-led initiatives, but the decision-makers who control the goods carried are not based in Atlantic Canada, e.g., the “market” in “market-based” is not in Atlantic Canada. There is very little public policy guidance in any of the three studies on how to deal with decisions made elsewhere when the pitch by government is local. Atlantic Canada is a way station on the journey by traded goods, goods that can as easily move through other ports and on other routings that may not include Canada. The customer for supply chain services is a shared customer; all those along the supply chain who touch this shared customer add value to the finished product in the form of traded services.

EAST MEETS WEST: IS THE ATLANTIC GATEWAY REALISTIC?

While Thomas Friedman's (2005) tome, *The World is Flat*, argued that globalization, outsourcing and off-shoring have irrevocably changed the nature of global competition and global supply chains, logisticians know that for transportation infrastructure investments, the world is really still round. Government of Canada (2006), the federal government's illustrated document on its gateway initiative, graphically shows Asian trade being captured by Canada's west coast ports of Prince Rupert and Vancouver. What the illustration does not show is that the Prince Rupert opportunity does not stop at Winnipeg but is really a continental initiative, with the true prizes being Chicago, the heart of the US mid-west, and Canada's golden triangle. Their geographic opposites (in this round world) are India to Singapore.¹ For India, the logical route is definitely east coast; Karen Oldfield (2007) reminded her Toronto audience in February that a change in mental geography by the Canadian Retail Shippers Council to looking west from India rather than east cut 23 days off the transit time for goods to central Canada's dominant market. For Malaysia, Singapore and Thailand, there truly is a choice, a choice dependent on what landside investments are made to facilitate traffic through the gateway and onto the corridors. Halifax via Suez is simply not competitive on transit time against other North American ports for goods originating at the ports of Busan (Republic of Korea), Shanghai (China) or other North Asian ports.

Table 1: Transit Times between Selected Ports in Asia and N. America's East Coast via Suez

Transit Time					
From (days: hours:)	Mumbai (India)	Laem Chabang (Thailand)	Singapore	Port Klang (Malaysia)	Hong Kong (China)
Halifax	14:13	19:20	18:06	17:21	21:00
NY/NJ	15:01	20:18	19:05	18:20	21:23
Norfolk	15:18	21:01	19:12	19:00	22:06

Note: Times are based on 22 nautical miles per hour. Source: World Ports Distances Calculator (<http://www.distances.com>) as cited by APEC (2006: 26, Table 6). Used with permission.

Freight flows like water, taking the most expedient course. A simple example makes the point: it is not about historical patterns but about the dynamic nature of trade flows, and about how infrastructure investment can alter those trading patterns. It is insufficient to look back. Having a small local market, Halifax has long tied its fortunes to the center of the continent and the markets of Ontario and Quebec. The advantages of the US mid-west market became abundantly clear with the infrastructure improvements at Sarnia-Port Huron in 1995. Halifax quickly grew its container traffic to the US mid-west from 4 percent in 1994 to 11 percent in

¹ These are opposites as measured by longitude. Mark Page of Drewry Shipping Consultants, in a 2005 presentation to the Halifax Smartport Committee, indicated that for shipping purposes, the dividing line was really through Laem Chebang in Thailand.

1996, a growth of three times the traffic in two short years (Table 2). The importance of the center of the continent to gateways in both countries is clear; today, more than 80 percent of the container traffic through the Port of Halifax is destined for or originating from central Canada and the US mid-west (APEC 2006). This would not be the case without the infrastructure improvements CN made at Sarnia.

Table 2: Traffic Growth Stimulation: The Sarnia Tunnel Impact

Year	Mid-West TEUs	Total TEUs	Share
1994	13,509	311,097	4%
1995	38,724	382,575	10%
1996	42,494	392,273	11%
1998	65,083	425,435	15%
2000	94,887	548,404	17%
2002	86,815	524,336	17%
2004	91,747	525,553	17%

Note: The tunnel opened in 1995. Source: Correspondence with J. McLean, Port of Halifax

While 27 percent of Halifax's container trade is with Asia, the Atlantic Gateway is not just about Asian trade and not just about Halifax. According to UNCTAD (2006), North American investment in production facilities in Central and Eastern Europe is growing. This new growth area provides an acceptable alternate production location that enables companies to diversify routing and political risk, thereby mitigating the risk of excessive dependence on Asian production and transpacific routings.

Although direct costs such as wages are slightly higher, the hidden costs are not perceived to be as high. Hidden costs include delays that reverberate through their supply chains. Trade and transport traffic originating from Asia has strained transportation capacity causing congestion and damaging delays. (APEC, 2006: 14)

Ocean routings from North European ports display transit time advantages over New York and Norfolk similar to those seen with Suez routings in Table 1.

There are four trade corridors served by the Atlantic Gateway, two marine and two landside. Not all require the further development of transload facilities, as Halifax now has (in construction) transload facilities to convert the transport unit from marine containers to domestic trailers.² The first corridor, CN's inland rail service to the heart of the continent is underutilized and ready for additional business; the company has invested in longer passing lanes along the route so as to handle longer trains and opened a CN International office in Northern Europe to solicit business. No further regulatory or governance issues are critical to increasing demand on the route. The next two corridors—short sea operations to US east coast ports and St. John's—exist, do not require transload operations, but

² Consolidated FastFrate's new transload facility will service Canadian Tire inbound; it could easily serve northern New England inbound as well. The purpose of the transload facility is to consolidate the contents of three ocean containers into two 53' domestic trailers, improving asset utilization for the last leg of the container's transit.

are underutilized. These two need further regulatory changes to thrive, which will be discussed in the section on marine policy. The fourth, truck service to the I-95 New England corridor faces security and border efficiency challenges, in addition to the infrastructure one. The main truck routes from Atlantic Canada to the US flow through the border at either Woodstock, NB or Milltown, NB (near St. Stephen). The Woodstock route is of better quality, but almost 100 km longer than the St. Stephen route, for the most part a two-lane highway. The Atlantic Institute for Market Studies, since its 2004 *Atlantica* report (AIMS, 2004), has devoted considerable effort to bring focus to improving the performance of this corridor.

The Atlantic Gateway is not just about the Port of Halifax. Canso (Port Hawkesbury) has grown to be a critical gateway in North America's energy strategy; the *Oil Pollution Act of 1990* and its requirement of Certificates of Financial Responsibility led to a thriving oil transshipment operation at Canso, with energy traffic at Canso growing exponentially in the late 1990s. Saint John is a strong, well-run bulk and energy gateway.

However, there is a significant infrastructure gap in Atlantic Canada. Of the Top 101 Atlantic Canadian companies, 35 percent of manufacturers and almost 25 percent of exporters report that the region's transportation system has a large or very large negative effect on their business (Chaundy, 2006: 138). In addition, APEC (2006:6) notes an as-yet-unreleased survey of foreign firms operating in Atlantic Canada in which they were asked to rate Atlantic Canada's transportation system relative to other jurisdictions in which they operate; road and air transportation were reported to be weaker than elsewhere. While the two surveys targeted two different business groups from two different perspectives (relative quality and business impact), the findings complement and reinforce each other. The conclusion that should be drawn is that infrastructure is a significant issue in Atlantic Canada, but the region is less equipped financially to build corridors through the region to major markets than other regions that are more densely populated. What institutional and regulatory changes are needed? The next section of the paper seeks to explore the issues and impediments surrounding the development of a gateway; it begins with a closer examination of port reform and port governance in Canada, before discussing other governance and regulatory impediments.

ISSUES AND IMPEDIMENTS

Canada's Port Policy and Governance Issues

Canadian ports fall under federal regulation; the provision of channels and their approaches, their operation and maintenance are considered the purview of the national government.³ In the *National Marine Policy 1995*, the Federal Government set five objectives for port reform, one of which was "shift the financial burden for marine transportation from the Canadian taxpayer to the user" (Transport Canada, 1995: 3). This self-sufficiency goal was implemented via the *Canada Marine Act, 1998* and remains today.

³ For a detailed historical listing of the statutes and laws of relevance to port governance and port operations in Canada, prior to the reform of the late 1990s, see Gratwick and Elliott (1992).

The process of port devolution, and its implementing legislation, the *Canada Marine Act, 1998*, were controversial. The review of the *Canada Transportation Act, 1995* began in 2000 and the Review Panel (CTAR), having determined that its mandate was very broad, focused on port governance and reporting issues, and recommended an earlier-than-five-year review of the *Canada Marine Act, 1998* (Public Works, 2001: Recommendation 9.15). Such a review was initiated, and the Canada Marine Act Review Panel reported to the Minister in 2003 (Transport Canada, 2003). Since the reports of both of these panels, no port governance changes have been implemented in Canada, and Brooks (2007: 250) concluded that these recommendations provided “confirmation that devolution was not perceived to have gone as well as it might have.” The recommendations of both review panels may be found in Appendix A and B.

The strategy proposed by the *National Marine Policy* was intended to build a port system that would be autonomous and financially self-sustaining by establishing three categories of ports in Canada, each with different ownership/management models, organizational structures and management processes, and different reporting mechanisms and accountability to the public (Brooks, 2007: 243). Those designated as Canada Port Authorities (CPAs) were supposed to be the ones of national economic significance, while those devolved to local interests or the private sector were not. By 2003, Brooks (2007) concluded, the size and volume of traffic and the significance to Canada’s economy were not perfectly correlated with the model chosen by government, as two of the Top 10 2003 ports—Come-By-Chance and Port Hawkesbury—handled more international than domestic traffic, and the former remained firmly in government hands, while the latter was classified as a regional/local port and devolved to local interests.

There are two governance issues in Canada’s national ports policy that have relevance to gateway development: (1) the ports must be financially self-sustaining and their ability to make investments is limited tightly by the Letters Patent; and (2) the federal government controls who sits on the Boards of these “autonomous” entities and so their ability to act independently is compromised.

The most prominent of all the criticisms by the two review panels is the limits on the ability of CPAs to make strategic capital investments. The CTAR Panel recommended removal of borrowing limits (Recommendation 9.10), likely not in isolation from limits on their abilities to develop for-profit subsidiaries (Recommendation 9.12 and 9.13). The CMAR Panel went further and not only recommended changes to streamline processes for acquiring access to funding for infrastructure (Recommendation 5.3), but also recommended changes to allow access to funding that would be available to other Canadian corporations (Recommendation 5.2), to be able to raise tax-exempt bonds or similar instruments as is currently available in the US (Recommendation 5.4), and went so far as to recommend the government participate in financing (Recommendation 5.1). In addition, CMAR recommended adjustments to the ability of ports to manage their real property (Recommendations 5.8 -5.11), so as to give the CPAs greater flexibility in meeting service provision challenges.

The goal that Canadian ports be financially self-sufficient is unusual in global port authority circles. Cullinane and Brooks (2007) found that very little cost recovery occurs as part of port financing. As illustrated in Table 3, no cost recovery occurs in about 50 percent of the ports surveyed, full cost recovery in

only 20-25 percent of cases and partial cost recovery in 25-30 percent of cases. The only significant deviation from this norm is the issue of leasing or concessioning of terminal operations. So, while in Canada there is a requirement that Canada Port Authorities (CPAs) be financially self-sufficient, they do so in all areas, not just in landlord situations where concessions can generate substantial bids that can but need not cross-subsidize other uses of funds.

Ports also need flexibility in managing their real property. Such flexibility was granted to local and regional ports by removing them altogether from federal government ownership; the devolution of Canso to local interests means it has much greater flexibility in its efforts to attract Asian cargo, in particular due to the backing of the provincial government. It is highly likely that the Province of Nova Scotia will expropriate land on behalf of the port, perhaps simply because it is not a federal agency.

Table 3: Port Financing Practices

Investment Activities	Percent of Ports with Cost Recovery		
	None	Partial	Full
Berth or sea-lock capital investment	52	26	22
Financing of organizational restructuring and associated labor compensation	50	25	25
Land acquisition, disposal	54	25	21
Leasing, concessioning of terminal operations	33	26	41
Maintenance of port access roads	48	33	19
Waterside maintenance (e.g., dredging, channel maintenance)	48	30	22

Note: The Port Performance Research Network collected this data on 42 ports in nine countries (Argentina, Australia, Belgium, Canada, Chile, Italy, Turkey, United Kingdom and US). The ports surveyed were the larger ones in the country. Significant port reform programs have occurred in all but Belgium and the US.

Source: Created from the data collected by the Port Performance Research Network and reported in Cullinane and Brooks (2007: Figure 18.5).

Since the passage of the Canada Marine Act, several CPAs have sought increased borrowing limits from the Minister of Transport to counter inadequacies in infrastructure funding; this issue remains unaddressed. Brooks (2007) concluded

The governance model imposed by the Federal Government via the Canada Marine Act, 1998 left ports in a situation worse than airports when it came to financing needed investment. ...

Port capital investment is generally lumpy and not readily financed based on incremental cash flows; by the time banks are interested in providing debt financing, the port has already passed the time when construction should have begun and capacity is stressed. Brooks (2007: 251-252)

The second major criticism of the CPA management model is that the Minister of Transport controls appointments to the Boards of Directors of the various CPAs (Brooks et al, 2000). Although community input is sought, the Minister is able to reject candidates put forward by local interests and does not allow ports the flexibility that government granted to airports under that devolution program. As port devolution was intended to engender local responsiveness on the part of ports (Brooks, 2007), the appointment process is somewhat contrary to that purpose; CTAR's Recommendation 9.11 recommended that the number of Directors appointed directly to the Board by the federal Minister of Transport be reduced to two, the number appointed by the Minister to devolved airports in Canada. The CMAR Panel too queried the CPA governance model. Its Recommendations 5.16 and 5.17 attempted to resolve the issue of perceived political interference.

Ports in Canada (and their associated trade lanes) compete continentally with ports in the US. However, the port governance model in the US is significantly different. Fawcett (2007) has examined the governance of ports in the US and his research provides an interesting contrast to the Canadian situation. While one would expect that in the US, as a bastion of capitalism and the rights of the individual, most ports would be privately owned and managed, this is generally only true of bulk ports. "In effect, the federal government sees itself as the overseer of US seaports through implementation of its navigational role" (Fawcett, 2007: 214). General cargo ports tend to be publicly owned, governed by public boards but operated by tenants, with the public ownership mostly at the state or municipal level (Table 4). Hence, they reflect a public-private approach to the provision of port services. There is no national US ports policy, but federal control is exerted through the need for many ports to have access to funds for dredging and maintaining navigation channels; this is where the federal government is able to 'subtly' exercise its national interest.

Table 4: US Port Governance by Type (2002)

Type of Governance	Number of Ports
Bi-State Port Authorities	2
State Administrative Departments or Agencies	5
State or Commonwealth Port Authorities	15
County Port Departments	2
County Port Authorities	3
Municipal Agencies	16
Special Purpose Navigation Districts	57

Source: American Association of Port Authorities (2002). Port activities, functions and types. (www.aapa-ports.org/industryinfo/port_activities.htm) as cited by Fawcett (2007, Table 10.3, p. 220.)

Fawcett (2007: 217-218) draws the following conclusions:

However, the public financing capability of port authorities gives them unique access to capital markets and allows them, in some

cases, to float bond issues that are tax-free to the buyer. ... Indeed, one of the more compelling reasons for public ownership of these vital facilities is in the ports' capability to borrow sufficient funds for their own capital expansion.

In concluding this section on port governance, there is one message intended. Port governance does affect the way a gateway port is managed and developed. While it may be desirable to have ports that are locally responsive, Canada's ports policy has its flaws. Two review panels have pointed these out, and there is industry agreement that the nature of the operating environment influences the outcome; it is within the purview of the federal government to address these concerns to make gateway ports better able to make investment in needed infrastructure, to amass the land needed for such investments, to undertake other activities that will help finance such investments, and to provide financial support (as is the case with our closest neighbor and its competing ports).

Marine Policy Issues

Port governance issues are not the only ones influencing gateway development on the east coast. The Dalhousie short sea study (Brooks, Hodgson and Frost, 2006) examined impediments to the development of short sea shipping on the east coast of North America. It concluded that there were four components needed for a successful short sea service: They are sufficient demand, a service that met shipper needs, a short sea operator convinced of the commercial potential, and a pro-development regulatory environment. While the report is not conclusive on the first two of these (it indicates areas where further due diligence is needed), it examines in depth the challenge of finding a business opportunity with potential. Since its publication, Brooks and Trifts (2007) have examined further the needs of shippers and their choice decisions between the land corridor to the US east coast and the short sea corridor, and have found further evidence that the land corridor is sufficiently problematic to shippers (with considerable delay and congestion) that the short sea corridor holds even more promise within the distance range identified by Brooks, Hodgson and Frost (2006).

Quite important for this discussion in this paper are the regulatory impediments identified by Brooks, Hodgson and Frost (2006). The actual or perceived impediments that impact the viability of short sea shipping operations on the East Coast, and which fall within the ambit of responsibility of government are detailed in Appendix C. In the year since the study was released, there has been little action discernible on any of the policy recommendations, while there has been developing interest on the part of the private sector vessel operators to grow business on this corridor. Even a small change in the regulatory climate could therefore have a significant impact in developing this corridor.

Hinterlands and the Land Corridors

On the infrastructure side, the Canada-US TransBorder Working Group (TBWG) identified the infrastructure gaps (NYSDoT, 2003), and Brooks and Kymlicka (2007) concluded that is particularly acute on the eastern edge of the continent:

The US\$13.3 billion border infrastructure gap identified by the TBWG clearly hurts all of us. For those in Atlantica, the fact that 35 percent of the need is regional, far in excess of the region's national participation in NAFTA trade, dramatically underlines the neglect of the two federal governments and the barriers to regional industry. (Brooks and Kymlicka, 2007)

However, it is not just an infrastructure problem alone. While infrastructure accounts for some of the delay at the border, regulatory impediments feature as well. Facilitation of transborder and inter-provincial land transport is both a national and a regional challenge for north-south corridor development. It is clear that transportation providers on the continent must meet a myriad of state and provincial regulations, in addition to national ones, hampering the development of an equitable playing field within modes. This quote from the recent Atlantic Provinces Economic Council report is not a lone voice in indicating that all is not well from both infrastructure and regulatory/administrative fronts in Canada-US trade:

Security measures and border congestion have become critical issues since 2001 and are particularly important for trucking. ... The adequacy of border infrastructure to cope with rising trade volumes and stricter security measures, the compliance costs associated with increased security, and inefficiencies within the system, such as the procedures for pre-notification, are some of the main concerns. (APEC, 2006: 7-8)

Table 5 indicates the high cost of security compliance on Canadian transborder trucking (DAMF, 2005). While truck delay accounts for the biggest component of the costs, and is partially offset by the imposition of surcharges, it is clear that security compliance comes at a high price. This reinforces the earlier finding by Taylor et al. (2004); they estimated that 2002 cost impacts of the border ranged from US\$7.5-13.2 billion with transit time and uncertainty costs at 33-40% of that total. Because of JIT uncertainty, they estimated reduced Canadian sourcing at US\$1.5 billion. These issues threaten the use of Canadian gateways in general as access points to US markets, and the situation on the east coast is compounded by poorer land transport infrastructure.

Table 5: DAMF's Cost of US Import Compliance on Canadian Trucking

Cost Impact Item	Annual Minimum (C\$ millions)	Annual Maximum (C\$ millions)
Truck Delay	231.0	433.0
Driver Compliance	3.4	6.8
C-TPAT Compliance	5.0	10.0
Computer Systems	2.5	5.0
Administration	14.0	28.0
Less Border Surcharges	-77.0	-77.0
Net Cost Impact	178.9	405.8

Source: DAMF (2005), p. ES-3

DISCUSSION: REGULATORY AND GOVERNANCE BARRIERS TO GATEWAY DEVELOPMENT

Policies adopted by all levels of government have an impact on how much, when and where the private sector is willing to invest. (Government of Canada, 2006: 13).

The Government of Canada's Gateway brochure (Government of Canada, 2006) presents the government's view that amendments to the *Canada Transportation Act* and a new *Canada Airports Act* will be the governance changes that are needed; any changes to the *Canada Marine Act* appear to be forgotten. As already argued, the *Canada Marine Act* is in need of an overhaul. As well, while there is a focus on security and border issues, and infrastructure improvements, the whole issue of inter-provincial transport barriers remains unmentioned. To quote one Atlantic Canadian company that wished to remain anonymous: "I'd rather sell in the US than figure out how to deal with the complexity and administrative burden of selling elsewhere in Canada. At least the truck can get to New York without excessive regulatory discrepancies." To recap the needed changes in a different format, they are organized here as conclusions.

Conclusion 1: Clarify Roles

In discussing the role of the federal government in infrastructure development, the usual first step is to identify projects worthy of federal government interest. In the United States, there has been an on-going interest in what constitutes projects of "national significance" and how such projects should be funded. Who decides this and how is it decided? These are also questions the Canadian government faces.⁴ While the Government's gateway brochure (Government of Canada, 2006) indicates that Canada needs a national policy framework for strategic gateways and trade corridors and that the government is prepared to respond to specific issues and opportunities of national significance, and the Department of Finance (2006) has committed to such a possibility, the institutional framework for implementation remains unclear and therefore subject to adhocery and whim. Perhaps it is best to begin as the Americans have—by defining what is considered a project of national significance.

The federal government is responsible for fostering the national transportation system's efficiency, safety, security and sustainability in all modes. These fundamental objectives are pursued through marketplace framework policies, regulations, statutes and infrastructure investments. The federal government is also responsible for secure and efficient administration of Canada's

⁴ This question is not only being raised in Canada. The Transportation Research Board in Washington recently formed the Committee for the Study of Funding Options for Freight Transportation Projects of National Significance to revisit this issue in advance of examining the larger one of how such projects might be financed. Earlier US efforts are thoroughly discussed in TRB (1998), which details the extensive evaluation of what the term "project of national significance" really means. The discussion is very instructive as to when national interests may differ from local interests and, therefore, when federal involvement is warranted. As Canada has a long track record of greater involvement by the federal government in the transportation network than the more states-rights-oriented US, it means that the US offers an example of the institutional floor rather than an institutional ceiling to the appropriate role of government.

borders, for pursuing Canada's interests in international commerce, and for positioning Canada to compete and prosper in the global economy. (Government of Canada, 2006: 7).

In Canada, as implied by the policy statement above, the government indicates (1) its predilection for infrastructure investments that will position Canada for global competitiveness, and (2) for changes to the framework policies, regulations, and statutes that would support development of an efficient network, in addition to (3) secure and efficient border administration. While governments and agencies on the east coast implore the government to step up to the plate on the investment front, that is not what this paper is about. The government must not just focus on the first, but ramp up its efforts to address the second and the third of these activities.

In addition, there is a role for provincial governments. As well as addressing the infrastructure investment within their purview, they also need to think in terms of regulatory convergence. The time is ripe for improving internal performance by removing antiquated inter-provincial trade barriers. The gains of continental free trade have been jeopardized by the inability to deal with regulations that are not harmonized.

Conclusion 2: Make the Atlantic Gateway a National Priority

A limited number of regions in Canada are potential targets for an integrated "gateway" approach, based on international trade and commerce volumes of national significance and transportation policy considerations. The Government of Canada is developing a national policy framework for strategic gateways and trade corridors that will guide future actions. It will draw on the key concepts and lessons of the Asia-Pacific Gateway and Corridor Initiative. (Government of Canada, 2006: 8).

It would appear that there are two criteria: (1) volume of trade and (2) transport policy considerations. As is often said of the mutual fund industry, past performance is no indicator of future performance. As seen in the case of the investment in the Sarnia tunnel previously discussed, and as will be seen with the opening of the Prince Rupert facility, it would be somewhat foolish to assume that there is no tipping point in networked freight flows. While all would agree that the Atlantic Gateway is likely more risky than the Prince Rupert development, this does not remove it from the priority list. The Suez alternative from south Asia is a real prospect, and the region is an energy gateway for North America.

Conclusion 3: Identify a Change Agent

It is clear at the present time that each of the levels of government are looking for other levels and the private sector to signal that they are prepared to play a role in developing the Atlantic Gateway. This indicates that most stakeholders are looking for others to generate the business plan for any infrastructure investment that is needed to bring about the exploitation of an Atlantic Gateway opportunity. Some entity needs to play a leadership role. The discussion has encircled the issues but there has not been a breakthrough in identifying a change agent to make the first step. Institutional reform and strong leadership are needed. The decision-makers

do not reside in Atlantic Canada; the support of central Canada and the US mid-west is needed to strengthen the existing gateway and build more business.

Conclusion 4: Make Changes to Port Governance

While the Government of Canada has considered governance changes in the Greater Vancouver region enabling port restructuring to address local co-ordination issues, this is not the only reform effort needed. Canadian ports of national significance need to be on a better overall governance footing. This means implementing the recommendations already reached by the two review panels (Public Works and Government Services Canada, 2001; Transport Canada, 2003). This also means that the Government needs to give serious consideration to its stated objective of financial self-sufficiency. Ports elsewhere in the world, and in particular in the US, operate with partial or no cost recovery for the majority of their financial requirements; the only place this is not true is for container terminal concessions where the private financing market is healthy where long-term concessions are granted.

Conclusion 5: Regulatory Changes to Support Development of the Transborder Corridor to the US and Short Sea Options

As already noted, there is a significant amount of work already done to identify what must change to resolve the regulatory and administrative barriers to north-south truck transport and short sea development. Because most of the low hanging fruit has been picked, inertia seems to have set in. A renewed commitment to regulatory convergence and an enthusiasm for streamlining trade bureaucracy is needed at both federal and provincial/state levels if North American competitiveness is to be improved.

CONCLUDING REMARKS

It is not about Canada's east coast ports and west coast ports competing. It's about ports (gateways) on both coasts working to serve Canadian trade interests, to provide routing options (corridors) that strengthen Canada's competitiveness. It is also about Canadian ports as credible access routes to and from US markets. Regulatory and governance changes need to reduce the friction in the transport elements of the global supply chains of North American companies. Those changes need to be on two borders—inter-provincial and Canada's border with the US. At home, we can finally address the shortfalls identified in the *Canada Marine Act, 1998* and ameliorate the restrictions imposed on ports through revisions to letters patent.

For the Atlantic Gateway, the critical issue is one of timing. India is growing and growing fast, although some of that phenomenal growth is coming from back office relocations and in the service sector. How long it will be before China begins to suffer extreme upward pressure on labor costs, or even pressure on the environmental front, enough to sufficiently deteriorate its advantages as a production locale are not known. Will the business move to Thailand, Vietnam, Malaysia, India or Eastern Europe? Will this happen before or after the completion

of the expansion of the Panama Canal? While the Atlantic Gateway is a less sure investment than the Prince Rupert facilities, its promise can be improved by removing the red tape affecting internal Canadian trade flows, by improving the infrastructure between Canada and the US, by addressing the public policy issues affecting short sea shipping and transborder trucking. These institutional and administrative impediments take political resolve but are less costly to achieve.

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APPENDIX A: RELEVANT RECOMMENDATIONS OF THE CANADA TRANSPORTATION ACT REVIEW PANEL

Recommendation 9.9

The Panel recommends that the provisions of the Canada Marine Act making the Crown responsible for liabilities of Canada Port Authorities be removed.

Recommendation 9.10

The Panel recommends that borrowing limits in the letters patent of Canada Port Authorities be removed.

Recommendation 9.11

The Panel recommends that the number of directors on Canada Port Authority boards appointed directly by the Minister of Transport be reduced to two.

Recommendation 9.12

The Panel recommends that well-defined limits be placed on Canada Port Authorities' use of for-profit subsidiaries.

Recommendation 9.13

The Panel recommends that

- a for-profit Canada Port Authority subsidiary be allowed to provide a service to the port only if it is the successful bidder in a fair and open competitive tendering process; and
- if a port in its own right (rather than through a subsidiary) undertakes activities that compete with commercial firms, it be required to demonstrate that the decision is in the port's financial interest.

Recommendation 9.14

The Panel recommends that Canada Port Authorities be required to develop comprehensive performance measurement systems and to make the resulting information publicly available.

Recommendation 9.15

The Panel recommends that a review of the Canada Marine Act be initiated by the beginning of 2002.

Source: Public Works and Government Services Canada (2001)

APPENDIX B: RELEVANT RECOMMENDATIONS OF CANADA MARINE ACT REVIEW PANEL

Financing Issues

Recommendation 5.1:

The Government of Canada should make investments in infrastructure for CPAs where the amount of capital needed is beyond the ability of the CPA to finance from its cash stream as is currently provided for and where the business case for such investment has been approved by the appropriate government department. (p. 26)

Recommendation 5.2:

Section 25 of the CMA should be clarified to ensure that CPAs are allowed to participate in any programs provided by the Government of Canada that are available to other Canadian companies. (p. 26)

Recommendation 5.3:

Application and approval processes to increase borrowing limits should be simplified and streamlined to ensure that CPAs can undertake projects in a timely manner. (p. 26)

Recommendation 5.4:

The government should consider financing alternatives for new port infrastructure investments, such as the tax-exempt bonds used widely in the United States. Consideration should also be given to permitting accelerated capital cost allowance write-downs for infrastructure facilities provided by the private sector within a CPA. (p. 27)

Federal Property

Recommendation 5.8:

All real property determined by the CPAs to be surplus to the port activities described in section 28(2) of the CMA should be transferred at nominal value from Schedule B to Schedule C of the Letters Patent of each CPA. (p. 30)

Recommendation 5.9:

Application and approval processes for purchase, disposal and exchange of federal real property should be simplified and streamlined to ensure that CPAs can proceed with such transactions in a timely manner. (p. 30)

Recommendation 5.10:

Section 46(1)(b)(i) of the CMA should be amended to allow CPAs to exchange federal real property for non-federal real property of comparable or greater market value. (p. 30)

Recommendation 5.11:

All proceeds received by a CPA from the disposal of any federal real property managed by the CPA should be placed in a trust or segregated fund for future infrastructure investments by that CPA. (p. 31)

Board Appointments

Recommendation 5.16:

The Minister should nominate individuals from the list of nominees recommended by the user nominating committee to sit as CPA board directors. In the event that the committee proposes an insufficient number of nominees, the Minister may nominate any other qualified individuals. (p. 34)

Recommendation 5.17:

The CMA should be amended to permit a person who is a director, officer or employee of a user to sit on a CPA board of directors. (p. 34)

Source: Transport Canada (2003: Chapter 5.)

APPENDIX C: SHORT SEA POLICY RECOMMENDATIONS

- Examination, and rectification where necessary, of policy, costing or process circumstances or impediments (for example the absence of full environmental costing) that disadvantage the marine mode in relation to land mode alternatives.
- The possible need to provide some form of stimulus to make it attractive for shippers to explore use of a new and (at least in terms of perception) more complex transportation option.
- The need for expanded, more substantive, cooperation between Canada and its NAFTA partners, particularly the US, sufficient to achieve tangible progress in moving towards a harmonized marine transportation regulatory framework within the free trade area, including cabotage arrangements, harbor maintenance tax, customs' processing, and advanced notification and documentation requirements.
- A program of research and development focused upon ship design and cargo handling arrangements, and directed at identifying the specific technological parameters that maximize the chances for success of an optimum East Coast integrated short sea shipping service.
- Improved data gathering in a format that can provide a more accurate insight into the potential or otherwise for short sea shipping options on the East Coast.
- Examination of the current insurance and liability arrangements as they apply to each element in the integrated transport chain, with a view to identifying ways in which liability insurance might be rendered more commercially competitive.

Source: Brooks, Hodgson and Frost (2006: iii).