

**Strategic options in Canadian transport policy:
The interface between trade pressures and domestic policy**

Peter W.B. Phillips¹ and James Nolan²

University of Saskatchewan

Suggested citation: Phillips, P. and J. Nolan. 2007. "Strategic options in Canadian transport policy: The interface between trade pressures and domestic policy." Presentation to the Western Transportation Corridor Workshop, Regina, Canada, February 21.

Abstract: Canada is facing inexorable pressures to realign its bulk freight transportation policies, especially in Western Canada. National transportation policies, as one of the three legs of the National Policy (with a common tariff wall and policies in support of immigration from Great Britain), have been used since 1876 as a nation-building tool, to support and to build economics social and cultural links between the provinces of Canada. This policy dovetailed well with the economic flows for more than a century. Since the mid 1980s, with the restructuring of our national economic policy (particularly the liberalization of trade globally, the development of a stronger continental economic area through the NAFTA and the replacement of British with Asian immigration), economic flows have begun to diverge from the built transport capacity in Canada. This paper examines the roots of our current transport policy in Western Canada, assesses the pressures for and scope of change and offers some observations on three key transport policy challenges facing Western Canada and the federal system: rate setting; competition and mergers policy; and harmonization of rules.

Key Words:

Transportation; Western Canada; trade; policy

¹ Professor, Political Studies; associate member, Agricultural and Bioresource Economics; associate member, Marketing and Management.

² Associate Professor, Agricultural and Bioresource Economics

1. Introduction

Historically, transportation has been viewed as the foundation of a modern economy and society. It provides the means of moving people and things in, out and around a nation state. Until quite recently, most transportation systems were seen as national assets that were vital to the national security of a nation (Strange 1988). Canada was no exception. For the better part of a hundred years, the operation of the National Policy, with its Canada-first transportation policy that supported and nurtured east-west flows of people, goods and services, was consistent with that orientation.

Times are changing. The accelerating liberalization of trade in goods and services, and the concomitant flows of people and information, are changing both the direction and scale of transportation flows and, in some very real ways, are changing the nature of transportation itself. Transportation is in many sectors no longer simply the arms-length conveyance of goods, but now is inextricably linked into supply chain systems, underpinning the quality standards and performance of leading firms. Many firms have extensive contractual or vertical ownership arrangements that integrate transportation services into just-in-time or quality-assured production and marketing systems. There is significant evidence that the incremental returns in most industries now are being generated in or by these co-ordinated value chains. Transportation is a critical part of that world, and this has consequences as to how we regulate surface transportation in North America. Traditional measures of industrial structure, competition and performance may mean different things depending on the specific role the transportation system is playing. Currently many of the regulations maintained by the three national—and in some cases provincial or state—governments are irrelevant to this future; in some instances the presence of disconnected and inconsistent systems may be actually working at cross purposes to the users of transportation services.

This paper contributes to the debate about the nature and reform of Canadian and North American transportation policy by examining the historical roots of our current built capacity and policies (section 2), laying out the underlying economic argument for change (section 3), and evaluating the possible options for reform of our current transport policies, identifying the areas of both congruence and convergence (section 4). Section five offers some tentative concluding comments and policy advice about the nature of the challenge of reforming the transport system.

2. Transportation and the National Policy

In some economies and societies it might be most appropriate to examine the underlying economic and social structures and exchanges to determine the nature of the transportation system. For instance, the transportation systems that emerged in Europe in the past 500 years tended to grow organically in lock-step with the surrounding economy and society (Nolan, 2003). That approach would not be useful in either the US or Canada—transportation policy and infrastructure has been viewed by both states as a “nation building” instrument in support of realizing some form of “manifest destiny” on the North American continent. In most instances, transportation led development, and not the other way around.

In Canada, the Conservative government of John A. Macdonald formally implemented the National Policy in 1879. Macdonald defeated the Liberal Party in 1878, which had run on a policy of free trade with the US. The National Policy was a three-pronged development strategy for the newly founded Dominion of Canada, and vestiges of that policy remained in operation for more than a century. In the first instance, the Policy involved a set of high tariffs to protect the fledgling manufacturing industry in Central Canada. The stated goal was to create a strong manufacturing base in Canada by serving a captive national market, thus making the nation more secure and less reliant on the United States. The policy was not entirely inwardly looking—it had a strong, retaliatory component, as the US enacted high tariffs against Canadian imports after the end of a brief period of free trade under the Canadian-American Reciprocity Treaty (1855-66).

Two other aspects are generally viewed as part of the National Policy (Eden and Molloy, 1993). Shortly after the tariffs were enacted, the federal government targeted to secure dominion over the west. While Manitoba (1870), Rupert’s Land (1870), and BC (1873) had already been incorporated formally into Canada, there were only limited transportation links to them. There was a real fear that western expansion by the American Republic would overtake and subsume the British interests in the west. Hence, by 1881 the effort to build a transcontinental railway was well underway. As the railway neared completion, it became clear that it needed both traffic to move and, at least for some period, extensive subsidies to carry that traffic. Western immigration was the answer. The railway received subsidies to carry settlers and settlers’ effects to the west and, after 1898, a succession of agreements and legislation subsidized the movement of grains and other produce from the west to the rest of Canada and ultimately for export to foreign markets. Over time, what eventually became the two current Class I railways (CP and CN)

became the backbone of western transportation. As provinces were carved out of the Northwest Territories, they enacted regulations and built roads, largely to support local access to the national rail network. After 1958 the federal government began to invest in national road infrastructure (initially in the TransCanada Highway and now an array of east-west and a few north-south routes), triggering the expansion of more inter-provincial and cross-border road hauling.

One visible effect of our ebbing and flowing National Policy is the current build-up of transportation infrastructure. In 2005, Western Canada had about 38,000 km of rail track, with CN and CP each having about 40% of the network, and shortlines and regional railways making up the rest. The Western Provincial Transportation Ministers (2005) assert that only about 11,500 km of that is viewed as part of the “strategic rail network.” While we also have about 780,000 km of road network, in the same manner only about 14,100 km of parallel and interconnected roads are viewed as “strategic.” Today, there are six major Canada-US border crossings in Western Canada, where road, rail or both link Canada with southern markets: White Rock, BC/Blaine, Wash; Kingsgate, BC/East Port, ID; Coutts, AB/Sweetgrass, MT; North Portal, Sk/Portal, ND; Emerson, Mb/Pembina, ND; and Middlebro, Mb/Northgate, MN. More than 50% of Canada’s marine exports are generated in the West; about 85% goes through Western Canada’s seven major ports and 17 public harbours.

Elements of the National Policy have been slowly dismantled over the past 50 years but little has materially changed in our transportation system. Economic integration between Canada and the US surged during World War Two, with greater specialization in key defense-related industries and, in the 1950s, the Auto Pact integrated the automobile industry in the two nations. Meanwhile successive rounds of negotiations at the General Agreement on Tariffs and Trade (GATT) lowered international tariffs on many industrial products. The 1980s marked a watershed, as Canada and the US negotiated in 1988 the Canada-US Trade Agreement (CUSTA). In 1994, Canada and the US, with Mexico, negotiated an extended and broadened agreement entitled the North American Free Trade Agreement (NAFTA). The next year wide ranging reform was achieved at the GATT level, with the World Trade Organization Agreement, which extended the general principles of free trade to a larger group of countries and related those principles to 29 special areas of trade (e.g. agriculture, intellectual property, services and textiles).

Perhaps most importantly various treaties designed to open trade now have a real potential to liberalize access to Canada's transportation system, both to firms seeking to use our capacity and to potential cabotage by foreign-based transportation firms who want to operate on Canadian roads and rails. While this possibility has not been tested in North America, there is a valid argument that the NAFTA provisions related to technical barriers to trade (chapter 9), investment (chapter 11) and cross border trade in services (chapter 12) and the WTO General Agreement on Trade in Services (GATS) could have a major impact on the demand for and supply of transportation services in Western Canada in coming years. So far, policy debates have only begun to scratch the surface of the implications of such possibilities.

While there have been some preliminary discussion about western transportation policy, there is a real risk that the Western Transport Ministers have put the cart before the horse. Without a full and comprehensive review of the economic trends facing the transportation infrastructure, they have identified \$15.7 billion of infrastructure investments that they would like to see made (Western Transport Ministers, 2005). Undoubtedly many of these would be valuable and appropriate, but in the absence of a consideration of the changed economic circumstances, a significant share of this could be misdirected into low-value uses.

3. The economic imperative for change

The rise and then decline of the National Policy has had profound effects on our transport interests. To shed some light on this critical policy debate, it is essential to examine the theoretical underpinnings and empirical evidence. A basic tenet in international economics is that distance and size matter in shaping the volume of bilateral trade between nations. Like the gravitational equation used in physics to determine forces of attraction between bodies, an economic gravity model assumes that trade flows (economic attraction) are largely determined by physical distance and economic size. In this case, size is represented by real gross domestic product (GDP), and distance captures transaction costs, particularly transportation costs.

Using a gravity model, McCallum (1995) found that, in addition to the impact of distance, national borders reduce trade by more than what would have been expected on the basis of tariff protection and other formal trade barriers. McCallum also examined inter-provincial and province-state trade to calculate the magnitude of the border effect with the United States. He

concluded that trade between any two provinces was more than 20 times more intense than trade between neighboring provinces and states.

A number of others have replicated this work, using refined methods and more current data (esp., post-CUSTA and post-NAFTA data). These works have identified a rapid decline in the estimates of this border effect. Helliwell (1998) estimated that the rapid increase in north-south trade observed after the implementation of the FTA reduced the border effect from 17 in 1981 to about 12 in 1996. Helliwell also estimated the border effect for service industries to be a lot higher than for goods, with a ratio ranging from 29 to 42 for the 1988-96 period. Anderson and van Wincoop (2001) derived a border effect equation from a theoretical model of multilateral trade and estimated a border effect of only 10.7. For comparison purposes, it is useful to note that the border effect for US inter-state trade and for the internal trade of the European Union are much lower (i.e., about 1.6), suggesting that the Canada-US border effect could fall substantially as trade continues to be liberalized. Coulombe (2002) calculated that eliminating the remaining trade barriers between Canada and the US could increase bi-lateral trade by 25%; Anderson and van Wincoop (2001) estimated trade could ultimately rise by up 44%.

This shift can already be seen in statistics on trade and transportation flows in Western Canada. The four Western provinces currently generate about 60% of the total tonnage of goods shipped in Canada. Unlike in Ontario, Quebec and the Maritimes, only a very small portion of the tonnage is destined for markets in the west. Instead, a large portion is shipped west to BC for export to the Asia Pacific region, east to central Canada (in many cases for shipment to Europe) or south to the US (and increasingly Mexico) (Table 1).

	Total tonnage shipped	% within province or region	% to BC	% to rest of Canada	% to US and Mexico
Atlantic	26,829,556	20.6%	0.3%	67.5%	11.7%
Quebec	30,531,981	19.2%	5.5%	30.3%	45.1%
Ontario	39,548,209	20.3%	6.4%	31.0%	42.3%
Manitoba	9,862,890	5.2%	7.5%	49.7%	37.5%
Saskatchewan	36,789,138	0.5%	34.5%	30.8%	34.1%
Alberta	46,767,202	6.4%	48.6%	13.8%	31.3%
British Columbia	53,226,013	63.0%	63.0%	17.8%	19.2%
Source: Transport Canada					

One concern that has been raised in the public policy arena is the possibility that imports from the Asia Pacific Economic Cooperation region, either for consumption in Canada, or for re-export to the US, could push Canadian products out of the Western Canadian transportation system. There is some evidence that this might already be happening. Canadian trade data shows that imports from the APEC region (less the US and Mexico) grew by 166% over the 1996-2005 period, compared with growth of only 62% of imports from the US and rapid but still minimal trade with Mexico (Table 2). Overall, the offshore APEC markets contribute more than one-third of Western Canada's incoming trade. While the data are not easily accessed, there is some hint in the data that does exist that a portion of that trade is moving along a rail corridor to final destinations in the US. Statistics Canada reports all provinces re-exported \$27,804,000,000, up 68% over the previous decade and equal to 6.4% of total exports in 2005.

	1996	% total	2005	% total	% diff 96-05
TOTAL APEC	\$32,949		\$62,238		89%
US	\$24,812	75%	\$40,165	65%	62%
Mexico	\$437	1%	\$1,620	3%	270%
Rest of APEC	\$7,700	23%	\$20,453	33%	166%

Source: Strategis.

The rise in the North-South trade can be seen in Tables 3 and 4. The US Bureau of Transportation Statistics reports that incoming full container crossings rose from between 7% to 1130% over the 1996-2003 period, depending on location. Total transborder shipments rose by 354%, faster than the overall movements between Canada and the US. This raised the western share of the total to 41% in 2003 from 39% in 1996.

State Crossing	1996	2003	% change
Idaho	24,912	68,047	173%
Minnesota	20,940	257,508	1130%
Montana	18,195	19,539	7%
North Dakota	20,087	137,965	587%
Washington	43,415	96,057	121%
US - Canada Border Total	329,983	1,402,388	325%
West as % total	39%	41%	

Bureau of Transportation Statistics,
http://www.bts.gov/programs/international/border_crossing_entry_data/us_canada/index.html

Even though Western Canadian shipments into the US by truck doubled over the 1996-2003 period, they did not keep up with growth in other parts of our bi-lateral trade, the result being the west's share fell actually during the period (Table 4).

State crossing	1996	2003	% change
Montana	120,882	141,476	17%
North Dakota	73,754	294,941	300%
Washington	235,340	433,468	84%
Idaho	44,947	46,502	3%
Minnesota	30,707	88,603	189%
US - Canada Border Total	1,420,629	5,673,101	299%
West as % total	36%	18%	

Source: US DOT, BTS based on data from US Customs Service, Mission Support Services, Office of Field Operations, Operations Management Database.

4. The current surface transport policy landscape

The transportation policy landscape is populated with a wide range of general and specific issues and debates. Overall, one could characterise the policy landscape by three key issues—rate regulation, competition and merger policy and harmonization of rules—which, when paired with the two main transportation modes, engages one or more of the three North American national governments and a wide range of provincial or state governments in the policy debate.

4.1 Freight rate issues and regulation

A range of regulatory approaches related to rate setting are currently used in the rail and road transportation sectors in the three NAFTA countries. Road carriage rates tend to be less regulated than rail, but the rail rate structure has been increasingly deregulated in recent years.

The Canadian rail industry is primarily rate deregulated, with most goods moving under freely negotiated rates and confidential contracts between shipper and railway. The notable exception to this is grain movement (which contributes about 20% of total rail revenues in Canada), where freight rates are still regulated, although the regulations have changed significantly in recent years (Nolan and Drew, 2002). A series of pro-competitive regulations are currently in place to handle those situations where carriers are believed to be exploiting substantial market power over shippers (Bonsor, 1995). The most important of these regulations

is intended to provide relief to shippers from “excessive” freight rates by obligating railways (under special circumstances) to give regulated access to their proprietary track to another competing railway. Another regulatory mechanism known as final offer arbitration (FOA) is also available to shippers. FOA is intended to resolve those cases where none of the other rate relief mechanisms are applicable. When FOA has been used for rate relief, it is as a rate relief of last resort (Vercammen et al, 1996).

In contrast, the US industry was de-regulated in 1980 as a response to almost a century of strict economic regulation. While, there are provisions intended to provide rate relief for affected shippers, they have generally proven costly and difficult to implement in practice (Massa, 1998). In cases where a shipper seeks a freight rate review, their main recourse would be to construct (at their expense) a stand-alone cost test (SAC test) as a point of comparison to the existing rail movement and the freight rate.³ The SAC rate test is derived from the theory of contestable markets and has proven to be quite generous to railways.⁴ But the right to conduct a rate review via the stand alone cost method is granted only after a revenue/variable (R/VC) cost test on the contested movement has been conducted (Tye, 1991). If the R/VC measure for a particular movement is determined to be greater than 180% (a condition defined by the regulator as "market dominance"), then under certain additional conditions, a rate review using the SAC test will be permitted. A rate review also involves calculations of revenue adequacy—a financial performance analysis of whether a firm earns the minimum returns necessary to cover their cost of capital requirements (McLure, 1986). This measure has gained increased importance to the US and Canadian rail industry in recent years, with calls to include it in any future rail regulations (Conference Board of Canada, 2000). The financial status of a railway as indicated by this measure will also determine whether or not the railway can be subject to a potential rate review under the 180% R/VC rule (Tye, 1991). To many analysts (including Tye), the 180% R/VC cut-off seems somewhat capricious. Undoubtedly, if rail regulations between Canada and the US were to be harmonized, the use and merits of revenue adequacy as part of a larger regulatory process needs to be further examined.

³ For a rail movement, the SAC test is defined as the full cost that would be incurred by a "hypothetical" competing railway (which must build its own track) in order to move a pre-determined set of goods between a prescribed origin and destination. Only this movement is permitted in the costing review (i.e. no scope economies are permitted). More details are provided in Ex parte 347 (STB, 1996). Surprisingly, the outcome of some SAC tests have yielded rate caps even higher than the 180% R/VC cap. The famous McCarty Farms case is an example of this (Massa, op.cit).

⁴ As of this writing, rate relief procedures in the U.S are being reviewed by the STB (STB, 2006). The current review is mostly a response to pressure from shipping organizations representing many smaller shippers who perceived that the test was biased against them (STB, 2004).

In the early 1990s, the Mexican government liberalized rail transportation. Previously, under the Mexican constitution, railways were deemed a national asset and therefore all significant investments and foreign ownership had to be approved by the National Commission on Foreign Investment (Brooks, 2001). This policy significantly prevented Mexico from funding upgrades to its outdated rail system, so the government decided to significantly privatize its national railways in order to allow foreign investment and ownership. The passing of NAFTA in 1994 resulted in the further liberalization of transportation, allowing up to 49% foreign ownership of rail companies (Brooks, 2001). The addition of private money to the system affords much more discretion to the rail companies, enabling them to more easily make decisions regarding efficiency and use.

The primary impetus for the historical regulation of the trucking industry in both Canada and the US was as a response to political pressure from the regulated rail industry in both countries. The competing rail freight industry was heavily regulated in the post “robber baron” era; while trucking was initially left unregulated in both countries. Ultimately political pressure for a “level playing field” in freight transportation forced regulation on the road industry (Viscusi et. al, 1996). That has changed significantly in recent years.

Prolonged debate at both federal and provincial levels in Canada preceded full trucking industry deregulation in the 1980s (Dionne et al. 1998).⁵ It took until 1988 for all provincial governments to adopt a "reverse onus test" for entry into the trucking industry. Under this test, new carrier entry was assumed a priori to be in the best interest of the public unless, within five years of entry, it could be shown that this was not the case (Bonsor, 1995). The federal government introduced provisions in the Motor Vehicle Transport Act requiring that a "fitness-only test" for entry be in place in all provinces by 1993 (applying only to inter-provincial trucking). In the years since de-regulation, the Canadian trucking industry has undergone substantial change in the interim, with many companies transformed or subsumed at various times through buy-outs or mergers.

While extensive economic regulation related to entry and rate setting were introduced in the US in the 1930s, they have since been wound down. The US trucking industry was fully deregulated through the Motor Carrier Act of 1980, a process concurrent with rail de-regulation.

⁵ The Canadian provinces enforced various forms of their own economic regulation, but Federal de-regulation was seen as a crucial step to increasing competition in the industry.

Subsequently, entry into the American trucking industry became a more transparent process than in Canada. A number of Canadian companies sought to take advantage of this and began to set up operations in the US, increasing competition for the large American market (Madar, 2000). A ban on permits to Canadian carriers was implemented in 1982 and continued until 1988, when both countries agreed to open borders for international truck movements (Bonsor, 1995).

In Mexico, trucking is regulated federally by the Secretariat of Communications and Transport (Secretaria de Comunicaciones y Transportes, SCT). The Secretariat performs all regulatory functions: it develops policies and regulations pertaining to highway transportation, grants operating permits to trucking companies, regulates federal roads and enforces transportation laws. The legislation is a general legal framework on road transportation and is very similar to Canada's *Motor Vehicle Transport Act*. However, the specific enforcement of trucking regulation is left largely to the *Normas Oficiales Mexicanas* (NOMs) or Official Mexican Standards, published in Mexico's Federal register (North American Commission for Environmental Cooperation, 2002). Much like in the case of rail transport, the Secretariat and related laws generally focus on protecting the safety of the environment and citizens through the implementation of NOMs, as opposed to regulating rates. This leaves Mexican trucking with a basic regulatory framework similar to that of its NAFTA partners.

Taking advantage of the economic opportunities of the NAFTA, WTO and APEC will require much greater policy harmonization within NAFTA. Ultimately, this is likely to require sustained deregulation or, at least, harmonized rate regulation across the systems. Clearly, the building blocks are in place—trucking is almost fully deregulated and rail deregulation has progressed to the point where some harmonization could be envisaged. An optimal outcome that addresses both efficiency and equity concerns in the rail industry would probably be a mixture of US policy, where rate regulation is virtually non-existent, and Canadian policy, which possesses much better mechanisms to encourage competition between railways (Grimm and Harris, 1998). Such pro-competitive policies will likely be necessary to ensure that the rail industry operates and competes more effectively against trucking for international traffic.

Shippers tend to favor merger policy harmonization because of the enormous potential for merged, multi-modal transportation firms to reduce costs associated with complicated supply chain logistics in the international movement of goods. In addition, there is the possibility that regional price discrimination could be reduced with the existence of large, multi-national, multi-

modal transportation firms. Handled carefully, this situation could eventually standardize freight rates for similar movements between Canadian, American, and Mexican carriers (Lande, 1989).

4.2 Competition and merger policy

While rail and road policies in North America have historically focused on the development and use of distinct transportation modes, increasingly inter- or multi-modal transportation operators will grow in importance (Inter-modal Transportation Institute, 2001). There are enormous economies of scale and scope available via inter-modal transportation, but these will depend upon both alliances and mergers to conduct trade related business.

Two events in the post-NAFTA era offer a glimpse into the future of NAFTA transportation policy. In 1995 Transportacion Maritima Mexicana (TMM) sold 49% of their rail line to the Kansas City Southern Rail Network (KCSI) to create a strategic “alliance” to serve a vital corridor for NAFTA trade (KCSI, 2002). A North America-wide alliance was completed with a 1998 agreement between KCSI and CN Rail to integrate CN’s network into the alliance. While such a business alliance is closely related to full merger, it is noteworthy that Mexican ownership restrictions prevented this transaction from becoming a full merger/buy-out (Brooks, 2001). From the US perspective, since the US partner in this trans-national company remained relatively small both in size and market share, the STB kept its distance and the alliance (including CN) was allowed to proceed. Conversely, in 2000 the US rail regulator issued a moratorium on all US rail mergers in response to a larger proposed merger. The moratorium followed a series of controversial hearings in Washington over a proposed merger of US-owned and operated Burlington Northern Railroad and Canadian-owned and operated Canadian National Railway (Canadian National, 2000). The proposed international rail merger was never challenged in Canada but after almost 200 US shippers at the hearings complained about the potential impact of the proposed merger, the merger was disallowed. While that merger moratorium was subsequently lifted by the STB in June 2001, very little merger activity has occurred in the US since. Clearly, government oversight on mergers now limits the ability of firms to engage in optimal cross-border industrial organizations.

The record shows that each country tends to respond differently to proposed mergers.

In Canada, the Competition Bureau regulates business mergers at the federal level. The Bureau’s mandate asserts that maintaining strong competition should allow businesses to adapt

to and compete in the economy and global markets. The Competition Bureau oversees mergers through Part VIII: Matters Reviewable by Tribunal, sections 91-103 of a federal statute entitled the Competition Act, R.S.C. 1985, c. C-34. The Act serves to regulate trade and commerce conspiracies, practices and mergers which affect competition (Government of Canada, Competition Bureau, 2001a). The Act covers all three traditional classes of mergers, including horizontal (where the seller is a competitor of the buyer), vertical (where the seller is a supplier or client of the buyer) and conglomerate (where firms have no previous record of interaction) mergers (Campbell, 1997). A merger (defined in s. 91 of the Canadian Competition Act) is deemed to have taken place if a "significant interest" is acquired in one company by another company in a particular market. Significant interest is obtained if one party gains the ability to considerably influence the economic behavior of another's business by the methods described in the definition (Campbell, 1997). If the proposed merger is large enough to qualify as a "notifiable transaction" under s.110 of the Competition Act, Part IX, the parties to that merger must notify the Commissioner of Competition at the Competition Bureau. The parties must then provide specific information to the Commissioner, through the Mergers Notification Unit of the Competition Bureau, regarding the details of the merger. They must also wait for a specified period of time after submitting a notification before completing the merger (Government of Canada, Competition Bureau, 2001c).

In order to determine whether or not the merger has a substantial negative effect on competition, the Commissioner has the right to examine whether the merger lessens, or is likely to lessen competition in a market (Government of Canada, Competition Bureau, 2001b). But it is important to note that the Tribunal cannot judge that a merger prevents or is likely to prevent competition strictly on the basis of evidence showing an increase in market share (Flavell et al., 1997). Following an evaluation of the merger under these guidelines, if the Commissioner believes that a merger has, or is likely to have consequences that work against competition, he or she will submit an application to the Competition Tribunal. Following investigation using the merger evaluation guidelines, the Tribunal may issue an order against a party to the merger if it finds that the merger would negatively impact competition in the relevant market. What is noteworthy is that in Canada, there are no specific merger regulations governing rail and trucking transportation. Mergers by companies involved in the transportation industry are subject to the same scrutiny as all other mergers.

In the United States, competition and mergers are regulated at both the federal and state level, although the federal Acts are the main source of regulation for inter-state mergers. Federally, mergers are regulated by the Federal Trade Commission (FTC), Bureau of Competition (Peritz, 1996). The FTC first enacted competition laws in 1890 with the federal statute known as the *Sherman Antitrust Act* 15 USC. (Sherman Act). These laws applied to all businesses involved in interstate commerce. They prohibited practices such as price-fixing and market monopolization in order to prevent the restraint of trade, protect the interests of consumers and prevent monopoly activity in business (Peritz, 1996). Since the enactment of the *Sherman Act*, comparable statutes have been passed in most states to regulate anti-competitive acts within a state (Peritz, 1996). Since the Sherman Act, a number of other Acts have been in the United States to govern mergers, each addressing specific aspects of the activity. For instance, the *Clayton Act*, s.7 and the *Hart-Scott-Rodino Act* (1976) describe specific requirements regarding notices that must be met prior to beginning the merger process. This was intended to prevent the phenomenon of "midnight mergers" (Holmes, 1992).

The Department of Justice's *Merger Guidelines* (1984) outline regulations and procedures that must be followed in order to successfully complete a merger, and also provide guidelines regarding merger review (Roberts, 1992). In 1992, the *Horizontal Merger Guidelines* were enacted to regulate mergers between competitors, thereby removing horizontal mergers from the control of the 1984 *Merger Guidelines* (Holmes, 1992). Non-horizontal mergers remain regulated by the *Merger Guidelines* (1984) under s.4 of that Act (Roberts, 1992). One interesting difference between Canada and US merger guidelines is the use of a measure of market power. As of 1992, the US no longer uses the simple market share measures that are employed by the Competition Bureau in Canada. Instead, the Herfindahl-Hirschmann index (HHI) was formally accepted as the measure of market power (Viscusi et al, 1996). Finally, in 2000, the *Antitrust Guidelines for Collaborations Among Competitors* were passed, providing oversight for joint ventures.

Mergers involving surface transportation industries in the US are overseen by the Department of Transportation, through the Surface Transportation Board (STB). The STB was established in 1996 following the dissolution of the Interstate Commerce Commission (ICC), which had regulated surface transportation since the late 19th century (Surface Transportation Board, 2001). Under federal transportation laws, notice of all rail mergers must be made to the

STB prior to any merger being undertaken. The STB allows time for a public commentary and review process and undertakes its own review of any proposed merger, examining environmental, economic, and competitive effects of the merger prior to issuing a formal decision on the merger (Surface Transportation Board, 2001).

Rail merger policy has been controversial. In the wake of the disastrous 1996 Union Pacific-Southern Pacific merger and the 1999 moratorium resulting from the blocked Burlington Northern-Canadian National merger, the STB issued new guidelines that are clearly intended to accommodate the real possibility of trans-national rail mergers. In their October, 2000 proposed update to existing merger guidelines, the STB specifically noted (Section 1180.1) that “the Board will cooperate with those Canadian and Mexican agencies charged with approval and oversight of a proposed transnational railroad combination.. Future mergers are likely to raise novel transnational issues, possibly implicating the North American Free Trade Agreement and requiring substantial cooperation with Canadian or Mexican regulatory authorities” (Surface Transportation Board, 2000).

In Mexico, merger policy is governed federally by the Comisión Federal de Competencia (Mexican Competition Federal Commission), established under the *Federal Law of Economic Competition* 24-XII-1992 and its corresponding regulations. This legislation was the first thorough set of Mexican provisions enacted to facilitate and protect full and open competition (Trade Commission of Mexico in Los Angeles, 2002). The Mexican Competition Commission enforces this legislation and carries out appropriate investigations necessary to determine if a given economic activity is anticompetitive. The *Federal Law of Economic Competition* covers two main areas of competition policy: monopolistic market practices; and mergers and acquisitions. It is worthwhile to note that although the law clearly prohibits absolute monopolistic conduct, it also prohibits relative monopolistic conduct including vertical agreements between non-competitors for the purpose of eliminating competition from the market (Trade Commission of Mexico in Los Angeles, 2002). This provision means that there exists the possibility that “alliances” between single mode transportation companies could be rendered anti-competitive under Mexican law if the Commission determines that the agreement would unjustly drive competitors from the market according to the specific criteria outlined in the law. At present, Mexico does not possess antitrust law specific to mergers between transportation companies. Generally, Mexican law empowers the Commission to dissolve completed mergers

or prohibit the completion of a merger when it can be shown to have the effect of damaging competition in a particular market by applying criteria specified under the law (Trade Commission of Mexico in Los Angeles, 2002). In addition, Mexican law requires a pre-merger notification process to be followed for certain types of mergers, in a manner similar to the Canadian *Competition Act*. The Commission then evaluates the merger and renders a decision as to whether it restricts competition beyond an acceptable level. If the Commission approves the merger, the decision is binding and the merger is no longer open to opposition.

A fully integrated transportation system between NAFTA countries would require NAFTA-level provisions regarding industry mergers. Clearly, as international competition increases, so will the interest in amalgamation and the formation of alliances between companies involved in inter-modal transportation. Given the size of the potential market, mergers might enable transportation companies to become more efficient and powerful competitors for transportation business (Neale et al., 1980). As noted, US laws in this regard are slightly more developed than the equivalent policies in either Canada or Mexico. It would be worth considering whether a US-style policy could be a foundation for any NAFTA-wide transportation merger policy guideline. US transportation merger policy is already similar to that applicable in Canada while Mexico's merger policy virtually ignores transportation. Ultimately, a seamless transportation legal system with a clear, common set of guidelines on mergers should allow the logistics of international transportation to be greatly simplified (Transport Canada, 1996). If policy harmonization happens, this will make it simpler for shippers, carriers, and industry officials to achieve trade goals and grow their businesses.

4.3 Harmonization of transportation law and regulation

Considering the legal and regulatory strides to date made by NAFTA in many key industries, we find that North American surface transportation is still only part of the way towards reasonable policy harmonization. Globalization and the importance of modern supply chains means that the transportation industry and associated public policy need to complete a similar process to ensure continued trade growth. While this kind of policy shift might seem relatively straightforward, there are a number of obstacles.

A major obstacle to improved transportation policy harmonization is the fundamental difference in legal systems between the NAFTA members. As is well known, most of Canada

(especially Western Canada) and the entire United States employ a common law legal system. In Mexico, although elements of common law exist, the country largely relies upon a civil law system. Civil law tends to overlook details and focus instead on expansive, general principles, whereas the doctrines of common law are established in judgments regarding specific disputes. The “rules” of common law are found largely in case law and are supported by statute, whereas the “rules” of civil law are codified in a Civil Code and are supported by statute. Common law gives priority to jurisprudence, whereas civil law gives priority to codified doctrine. These differences could raise difficulties with respect to harmonizing NAFTA transportation law because courts in the different jurisdictions use different methods of framing law, or may favor different remedies for the settlement of disputes. In addition, each legal system has different rules regarding conflict of laws (common law) or private international law (civil law), which could make determination of jurisdiction to hear an international dispute difficult.

In spite of this, there are important commonalities upon which to structure policy harmonization. Both systems of law used in North America recognize the right of the contracting parties to choose the law governing their agreements. This makes it possible for the NAFTA countries to outline in the provisions of the agreement how they would like NAFTA-related transportation disputes to be resolved (e.g. in accordance with American law or by an independent tribunal applying public international law).

One of the major accomplishments of NAFTA was the establishment of a clear set of regulations to ensure that each country would be subjected to the same treatment when conducting business on the other's territory. Ultimately, harmonization is about making systems interconnect and operate more efficiently and effectively. Since implementation of the NAFTA, trade flows in North America have become increasingly North-South rather than East-West (Transport Canada, 1996). The freight transportation industry would likely welcome even tighter policy harmonization within North America to support this trade expansion. In turn, freight transportation firms will need to consider even greater investment into inter-modal services. To obtain both outcomes will require the development of a more coherent policy at the NAFTA level regarding both inter- and intra- modal alliances and mergers.

5. Conclusions

With the dramatic increase in trade volumes in North America since the implementation of NAFTA, as well as new security concerns that have arisen since the terrorist acts of 2001, harmonization of industrial policy between the NAFTA countries has become a more prominent issue. Parties from all sectors continue to closely examine the benefits and costs of common regulations, as well as discussions of the possibilities for negotiation.

The political opportunity and economic imperative for setting a common North American surface transportation policy would appear to be well grounded. Moreover, our review of the regulatory and policy efforts related to rate setting, competition and mergers policy and harmonization of rules suggests that while there is significant room for improvement. We offer that there are, in each policy area, one or more potential platforms on which a common policy could be developed.

More work needs to be done to establish how such a change in governance structure might be motivated across such a large and geographically dispersed industry. Security issues now seem to be driving US border and trade policy with Canada and Mexico—but if security issues can reliably be set aside with an economic discussion of the future of transportation policy in North America, it is noteworthy that a number of transportation lobby groups in Canada and the US may be willing to participate in open discourse. For instance, engaging the rail sector would be relatively straightforward, as there are so few Class I carriers operating across North America and they effectively have a single lobby group (the American Association of Railroads, with the Canadian arm called the Railway Association of Canada). Conversely, the trucking industry is far more fragmented, even within each country. Finding a consensus or fair representation among trucking operators can be difficult at the best of times. But engaging trucking is critical in this discourse as trucking continues to be crucial to the evolution of North American supply chains.

What is missing, perhaps, is some discussion about how one can precipitate such a radical rethink of our respective governing systems. To precipitate discussion, one suggestion might be to look to the European Union, which has recently enacted a set of common transportation regulatory standards among member states (Harrison, 2000). The economic gravity models suggest they have been very effective in reducing the artificial barriers to economic specialization and trade. This in the first instance might provide a strategic benchmark. The

structure and operation of the Single Market Treaty negotiations before 1992 in Europe might also provide some guidance on the nature of a negotiating structure—one way forward might be to meld an interest-based bargaining model with the principles approach of the EU (i.e. the overarching principle of subsidiary, i.e. that matters ought to be handled by the smallest or lowest competent authority). Clearly more thought is needed on how to initiate such an effort.

References

- Alliance for Rail Competition (2002) “The Effects of Increased Competition and Improved Service on the Railroad Industry”, available on-line at www.railcompetition.org (accessed April 17, 2002)
- Anderson, James E. and Eric van Wincoop. (2001) “Gravity with Gravititas: A Solution to the Border Puzzle.” National Bureau of Economic Research, Working Paper 8079. January 2001. Also in *American Economic Review* 93, no. 1 (March 2003): 170-192.
- Bonsor, N. (1995) “Competition, Regulation and Efficiency in the Canadian Railway and Highway Industries”. Ch. 2 in *Essays in Canadian Surface Transportation*, Filip Palda, Ed., The Fraser Institute, Vancouver, B.C.
- Brooks, M.R. (2001) “North American Free Trade Agreement and Transportation: A Canadian Scorecard”, *Transportation Research Record* 1763, No. 01-0233.
- Campbell, A.N. (1997) *Merger Law and Practice: The Regulation of Mergers Under the Competition Act*. Scarborough: Carswell.
- Canadian National Railway (2000) “STB's rail-merger moratorium is bad public policy that delays, even risks, shipper benefits of CN/BNSF combination, says Canadian National's Paul M. Tellier”, news release accessed July 9, 2002 at http://www.cn.ca/news/news_releases/2000/en_News20000331.shtml
- Competition Act R.S.C. (1985) Government of Canada.
- Conference Board of Canada (2000) "Lower Rates and Improved Performance: Regulatory Reform of Freight Railways", Report 283-00, Regulatory Policy Alternatives Practice, Ottawa, ON.
- Coulombe, Serge. (2002) “Border Effects and North American Economic Integration: Where Are We Up To?” Paper prepared for the workshop, Social and Labour Market Aspects of North American Linkages, organized by Industry Canada and Human Resources Development Canada, November 20-22, Montréal.
- Dionne, G., Gagne, R., and C. Vanasse (1998) “Measuring Technical Change and Productivity Growth with Varying Output Qualities and Incomplete Panel Data”. *Journal of Econometrics*, 87, 303-327.
- Director of Investigation and Research - Bureau of Competition Policy, Consumer and Corporate Affairs Canada (1991) *Merger Enforcement Guidelines: Competition Act*. Minister of Supply and Services Canada.
- Eden, L. and M. Molot (1993) "Canada's National Policies: Reflections on 125 Years" *Canadian Public Policy*, 19(3): 232-251. ISSN 0317-0861
- Flavell, C.J.M. and Kent, C.J. (1997) *The Canadian Competition Law Handbook*. Scarborough, ON, Carswell.

- Government of Canada, Competition Bureau (2001a) *Merger Enforcement Guidelines*. Available on-line at: <http://strategis.ic.gc.ca/SSG/ct01026e.html>
- Government of Canada, Competition Bureau (2001b) *Changes to the Competition Act*. Available on-line at: <http://strategis.ic.gc.ca/SSG/ct02176e.html>
- Government of Canada, Competition Bureau (2001c) *Procedures Guide: Notifiable Transactions and Advance Ruling Certificates under the Competition Act*. Available on-line at: <http://strategis.ic.gc.ca/SSG/ct01499e.html>
- Grimm, C.M., and Harris, R.G. (1998) "Competition Access Policies in the Rail Freight Industry, With Comparisons to Telecommunications", Ch. 7 in *Opening Networks to Competition: The Regulation and Pricing of Access*, eds. D. Gabel and D. Weiman, Kluwer Academic.
- Harrison, R. (2000) "Harmonizing Truck Transportation", Section 4 in *Policy Harmonization and Adjustment in the North American Agricultural and Food Industry*. R.M.A. Loyns, K. Meilke, R. D. Knutson and A. Yunez-Naude, eds. Proceedings of the Fifth Agricultural and Food Policy Systems Information Workshop, Winnipeg, MB.
- Helliwell, John F. (1998) *How Much Do National Borders Matter?* Brookings Institution, Washington.
- Holmes, W.C. (1992) *Antitrust Law Handbook*. New York: Clark Boardman Callaghan.
- Inter-modal Transportation Institute (2001) *Proceedings of the 1997 North American Intermodal Transportation Summit*. Available on-line at: <http://www.du.edu/transportation>
- Kansas City Southern Rail Network (2002) *Texas Mexican Railway: History*. Available on-line at: <http://www.kcsi.com/tmr.html>
- Kwoka, J. E., and L. J. White (1999) "Manifest Destiny? The Union Pacific-Southern Pacific Merger", Ch. 3 in *The Antitrust Revolution: Economics, Competition and Policy*, J.E. Kwoka and L.J. White, eds., Oxford University Press, New York.
- Lande, R. (1989) *Railway Law and the National Transportation Act*. Vancouver, Butterworths.
- Larsen, P. D., and H.B. Spraggins (2000) "The American Railroad Industry: Twenty Years After Staggers", *Transportation Quarterly*, 54, 31-45.
- Madar, D. (2000) *Heavy Traffic: Deregulation, Trade and Transformation in North American Trucking*. Vancouver, UBC Press.
- Massa, S. (1998) "Injecting Competition in the Railroad Industry Through Access", *Transportation Law Journal* (U. of Denver), available on-line at: <http://www.du.edu/~transplj/massa.pdf>
- McCallum, John. (1995) "National Borders Matter: Canada-US Regional Trade Patterns." *American Economic Review*, 3: 615-623.
- McLure, H. R. (1986) *Railroad Revenues: Analysis of Alternative Methods to Measure Revenue Adequacy*. Washington, D.C., United States Department of Agriculture.
- Neale, A.D. and D.G. Goyder (1980) *The Antitrust Laws of the United States of America*. New York: Cambridge University Press.
- Nolan, J. and M. Fulton (2001) "Competitive Access: The Next Step for the Canadian Rail Industry? ", *Journal of the Transportation Research Forum*, 40, 81-95.
- Nolan, J. and W. Drew (2002) "The Estey/Kroeger Review and the Role of Regulation in the Canadian Grain Handling and Transportation Industry", *Canadian Journal of Agricultural Economics*, 50, 85-98.

- Nolan, J. (2003) "History of Goods Transportation", in Transportation Engineering and Planning (edited by T. J. Kim), chapter 6.40.1.4 in the *Encyclopedia of Life Support Systems (EOLSS)*, EOLSS publishers, Oxford, UK [<http://www.eolss.net>]
- North American Commission for Environmental Cooperation (2002) *Summary of Environmental Law in Mexico*. Available on-line at: http://cec.org/pubs_info_resources/law_treat_agree/summary_enviro_law/publication/mx01.cfm
- Peritz, R.J.R. (1996) *Competition Policy in America, 1888-1992*. New York, Oxford University Press.
- Roberts, R.J. (1992) *Roberts on Competition/Antitrust: Canada and the United States*. 2nd Ed. Toronto: Butterworths.
- Stover, J.F. (1997) *American Railroads*. 2nd Ed. Chicago: University of Chicago Press.
- Strange, S. (1988) *States and markets*. London: Pinter.
- Surface Transportation Board (2000) *Corrected Decision- Major Rail Consolidation Procedures*. Ex Parte No. 582 (Sub-No.1). Surface Transportation Board Reports, Washington, D.C.
- Surface Transportation Board (2001) *People and Functions*. Available on-line at: <http://www.stb.dot.gov>
- Surface Transportation Board (2004) Ex Parte No. 646, Rail rate challenges in small cases, July 16, 2004.
- Surface Transportation Board (2006) Ex Parte No. 646 (Sub-No. 1), Simplified standards for rail rate cases, December 19, 2006.
- Trade Commission of Mexico in Los Angeles (2002) *Mexico Business Opportunities and Legal Framework*. Available on-line at: <http://www.mexico-trade.com/sense/html>
- Transport Canada (1996) *Transportation and North American Trade: Trade Corridors*. Available on-line at: http://www.tc.gc.ca/pol/en/report/truck_corridors
- Tye, W. (1991) *The Transition to Deregulation: Developing Economic Standards for Public Policies*. Quorum Press, New York.
- Vercammen, J., M. Fulton, and R. Gray (1996) *The Economics of Western Grain Transportation and Handling*. Van Vliet Publication Series, Department of Agricultural Economics, University of Saskatchewan.
- Viscusi, W.K., Vernon, J.M., and J. Harrington Jr. (1996) "Economic Regulation of Surface Freight and Airlines", Ch. 17 in *Economics of Regulation and Anti-Trust*, 2nd Ed. MIT University Press, Cambridge, Mass.
- Western Provincial Transportation Ministers Council. (2005) *Western Transportation Infrastructure Strategic for an Economic Network: A time for vision and leadership*. March, http://www.th.gov.bc.ca/Publications/reports_and_studies/WTM_Final_March%202005.pdf.