



NORTHEAST CANAM CONNECTIONS: INTEGRATING THE ECONOMY AND TRANSPORTATION

NORTHEAST CANAM CONNECTIONS EXECUTIVE SUMMARY

Background

This report provides findings from a comprehensive study of transportation deficiencies that affect economic development of the Northeast Border Corridor. This region spans the states of New York, Vermont, New Hampshire, and Maine, and encompasses the neighboring provinces of Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. The international initiative is called “*Northeast CanAm Connections: Integrating the Economy and Transportation.*” This executive summary presents the key findings of the study.

A motivation for funding the initial study was concern about the fact that much of the Northeast CanAm Region (other than two large metropolitan areas) has suffered from a higher than average number of indicators of economic distress. These indicators include levels of worker income and job and population growth that are either stagnant or lagging behind the more robust economic growth occurring elsewhere North America (e.g., the southeastern and southwestern United States and the Toronto, Canada, region). Despite the explosion in global trade, the population and economy of the NE CanAm Region as a whole has grown slower than other regions of North America. The region’s international trade growth (including both cross-border and overseas trade) has also lagged behind growth in other areas of North America.

While the economy has lagged, there also has been concern that the Region’s multimodal transportation networks have not kept up with shifts in cross-border and international trade patterns that have emerged in the last few decades. Looking toward the future, beyond the current global economic downturn, the stakes will be even higher as the economic future of this region (and indeed that of both the US and Canada) will depend on having the infrastructure and economic resources to compete globally. The purpose of this study, then, is to examine the extent to which better east–west transportation links across the border and among the states and provinces can play a vital role in bolstering the NE CanAm Region’s economic growth.

Recommendations

Based on findings of the regional assessment, predictive analysis, and benefit–cost analysis estimates, key recommendations include the following:

Near-Term Recommendations

- Support investment in both the Atlantic and Continental Gateway initiatives currently being pursued by the Canadian provinces.



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- Pursue a US pilot study for harmonization of truck regulations within the Region.
- Support efforts to improve coverage and comparability of transport and economic data spanning both sides of the border, to enable better cross-border planning in the future.

Medium-Term Recommendations

- Invest in a limited-access, truck-friendly northern east–west highway.
- Conduct a regional inland-port strategic analysis.
- Develop a regional tourism marketing strategy.
- Develop plans for improved east–west short-line rail service.

Long-Term Recommendations

- Invest in a high-speed intermodal east–west rail corridor.
- Invest in a limited-access, truck-friendly southern east–west highway.

All of these recommendations require: (a) regional and bi-national coordination of planning efforts, (b) policy efforts to support and reinforce already-existing public initiatives promoting international gateways, energy and environmental goals, and (c) compliance with requirements of federal, state and provincial planning, environmental review and approval processes.

Competitive Assessment

The competitive assessment analysis revealed numerous key findings supporting the fact that the economy of the Northeast CanAm Region is hindered by limitations of currently available transportation linkages and services, as well as other competitive factors including institutional and regulatory policies. These key findings, which provide insight into potential strategies for mitigating the disadvantages, include the following:

Economic Performance and Competitiveness

- Over the past decade, the Northeast CanAm Region has not enjoyed the same level of robust growth relative to other major trading regions. Despite the impact of the North American Free Trade Agreement and the explosion in global trade, the Region has grown slower than other regions, both domestically and internationally, since the turn of the 21st century.
- Many of the states and provinces have lagged behind in terms of economic performance when measured in terms of gross output and employment. This has led to the region being characterized primarily as an economically distressed area bordered by large, growing economic centers.



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- The economic base analysis revealed that much of the NE CanAm Region, specifically the U.S. portion and the Atlantic Provinces, struggles to transition its natural-resource– and basic-manufacturing–based economy to a more service– and advanced-manufacturing–based economy.
- Results of the competitive-benchmarking analysis demonstrate that the NE CanAm Region has some of the necessary elements for sustainable economic growth, including a competitive labor force that is highly educated and experienced; important multimodal assets, including the St. Lawrence Seaway and access to a deep-water port capable of handling the very large “Post-Panamax” class of container ships; relatively cost-competitive freight rail rates; and numerous border crossings to facilitate bi-national trade.
- The analysis also revealed several areas in which much of the NE CanAm Region is not meeting the conditions necessary to compete globally, including relatively low capital productivity due to over-reliance on labor, a high tax burden and energy costs, and a significant truck-freight cost disadvantage (in many parts of the region).
- The fact that the NE CanAm Region’s truck-freight costs average 45% to 65% higher than national averages has significant implications for the ability of the Region to take advantage of the opportunities presented by global trends.
- There is a need for improved availability and consistency of economic and transportation data spanning both sides of the border.

Trade and Transportation

- Trucking is the dominant mode in the Northeast NE CanAm Region. In the United States, 93% of all traffic (in terms of tonnage) is truck; in terms of value, the figure is even higher at 96%.
- For the U.S. portion of the traffic, cross-border traffic predominates, with 2 of every 3 tons moving through the NE CanAm Region crossing the border. Furthermore, as with Canadian–U.S. trade in general, the dominant flow of traffic is from Canada to the United States. For Ontario, with its strong industrial base outside of the study area, the picture is different, with large quantities of manufactured goods (e.g., transportation equipment) being exported to the United States.
- Whereas there is little use of the marine mode in the United States (i.e., accounting for less than 0.5% of tonnage), for cross-border and intra-Canadian transport, it plays an important role. In 2004, on a tonnage basis, the marine trade accounted for 50% of all cross-border traffic.
- Noteworthy is the small portion of rail-handled traffic for U.S., cross-border, and intra-Canadian traffic. Although the low rail share in part may be explained by data, it primarily reflects uncompetitive conditions for rail. The primary trading lanes are short at fewer than



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600 miles, a distance at which rail has difficulty competing except where high densities are available. The geography of the NE CanAm Region and the rail network clearly affects its competitive position.

Tourism and Transportation

- Most visitation to the states and provinces of the Northeast CanAm Region is for leisure purposes. The province of Ontario and the state of Maine report that at least nine of ten visitors are traveling for leisure purposes.
- Tourism professionals identify the lack of more affordable air service as an impediment to attracting more visitors.
- Roadway infrastructure improvements are considered essential, especially to the tourism professionals interviewed in the United States. Intrastate roadway improvements are especially needed in the New England states. In addition, better highways in Maine and New Brunswick would facilitate visitation by automobile among Maine, New Brunswick, and Prince Edward Island.

Institutional Barriers

- Although the European institutional model does not necessarily map well to North America, it does suggest the need in North America to explore institutional options for greater cross-border cooperation. The Northeast CanAm Region study represents an ideal framework within which to launch a “made in North America” pilot institution for transportation and environmental policy and investment.

Strategic Directions for Growth

The globalization of the world economy has had significant implications for worldwide and North American freight transportation. Transportation services have an increasingly more crucial role in linking distant markets, functions, and supply sources into coherent commercial networks. The ability of a region to compete in this global environment will hinge on its ability to efficiently accommodate far-flung supply chains and to take advantage of changing trade lanes, the logistics revolution, and the shift toward a service-based economy.

The assessment of global trends and competitive attributes of the NE CanAm Region led to the development of the following six strategic directions for enhancing economic growth opportunities for the Region:

1. Fill in the “hollow region” through intra-regional development.
2. Expand outward trade by positioning to take advantage of increasing global trade.



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3. Improve the region's position as a trade link and trans-shipment point for the Great Lakes to the Atlantic Ocean trade.
4. Improve the region's position as a crossroads for north-south and east-west trade flows.
5. Capitalize on regional specialties including the energy, tourism, natural resource (e.g., forest and paper products), and aircraft and automotive manufacturing sectors.
6. Highlight the Region's potential role to address broader bi-national issues.

Investment Scenarios for Growth Opportunities

These six strategic directions and the associated changes in travel patterns that they require served as the starting point for developing the investment scenarios analyzed in the study. These actions are, in effect, the infrastructure and policy options identified to help bring about the desired travel changes to achieve the broad strategic goals. The next step in the study process involved conducting an assessment of the growth potential associated with each of the strategic directions, through the development of future scenarios that represent packages of actions. The six primary scenarios are as follows:

1. *Seamless movement through the NE CanAm Region:* This scenario combines all recommended actions. It includes improvements to the east-west highway connectivity and rail investments, ensuring seamless double-stack service from docks to Class 1 mainlines and efficient border crossing (i.e., removing regulatory and institutional bottlenecks) that currently impede travel in the Region.
2. *Harmonization of truck regulations:* This scenario examines the effects of modifying truck weight and size regulations on the US side to be harmonized with Canadian regulations within the NE CanAm Region. It consists of two separately analyzed cases: (a) with infrastructure investment, east-west highway (southern alignment); and (b) without infrastructure investment, east-west highway.
3. *Rail connectivity and service:* This scenario combines the following regional rail improvements: double-stack service at the ports in the NE CanAm Region, upgrading short lines for seamless intermodal service connecting to Class 1 railroads, and intercity rail service.
4. *Investment in a northern east-west highway across Maine, connecting Atlantic Canada with Québec and points westward.*
5. *Investment in a southern east-west highway across the states of Maine, New Hampshire, Vermont, and New York.*



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6. *Development of an interconnected radial network to support inland development:* This scenario includes tying into the Atlantic and Continental Gateways and developing crossroads with inland-port opportunities. It assumes implementation of the southern east–west highway investment. This scenario also supports tourism development.

It is important to note that these primary investment scenarios were developed to complement other important efforts in the NE CanAm Region, including the Atlantic and Continental Gateway initiatives being pursued by the provincial governments in cooperation with Transport Canada, the Halifax Gateway initiative, the Strait of Canso port-development initiative, and the Searsport container service development initiative being explored in Maine. These important initiatives were considered in conducting the trade-diversion analysis, which is discussed in more detail in this study report.

Benefits and Costs of Investment Scenarios

The benefit–cost analysis consists of translating travel impacts arising from the investment scenarios – in terms of distance and time by mode – into dollar impacts, which are then used in benefit–cost and economic-impact analyses. In addition, it includes other direct economic effects such as induced trade flows and inland-port logistics activity. More fundamentally, the methodology is designed to evaluate how these scenarios accomplish the broad strategic directions for growth to improve economic competitiveness in the Northeast CanAm Region by changing travel patterns. Key findings include the following:

- The magnitude of potential benefits in terms of their present value is significant – more than \$1 billion (USD) for all scenarios and up to \$15 billion for the “seamless-movement” scenario.
- The seamless-movement, northern-highway, and rail scenarios have the largest societal benefits. However, as discussed herein, their costs are quite different resulting in their relative benefit–cost ratios showing a very different ranking.
- Among the highway scenarios, transportation benefits of the northern-highway scenario are greater than those of the southern-highway scenario, which is in contrast to their relative impact on regional economic development.
- The rail-scenario transportation benefits are almost entirely accrued by shippers outside of the NE CanAm Region, which is not surprising, given that the Region currently has far less reliance on rail freight than other parts of the United States and Canada. Conversely, that finding does not diminish overall benefit–cost ratios or the significant potential for economic development benefits (as shown in the following exhibit).
- The highest benefit–cost ratios are achieved by the harmonization and northern-highway scenarios, which are also the lowest-cost scenarios. The harmonization scenario has a low

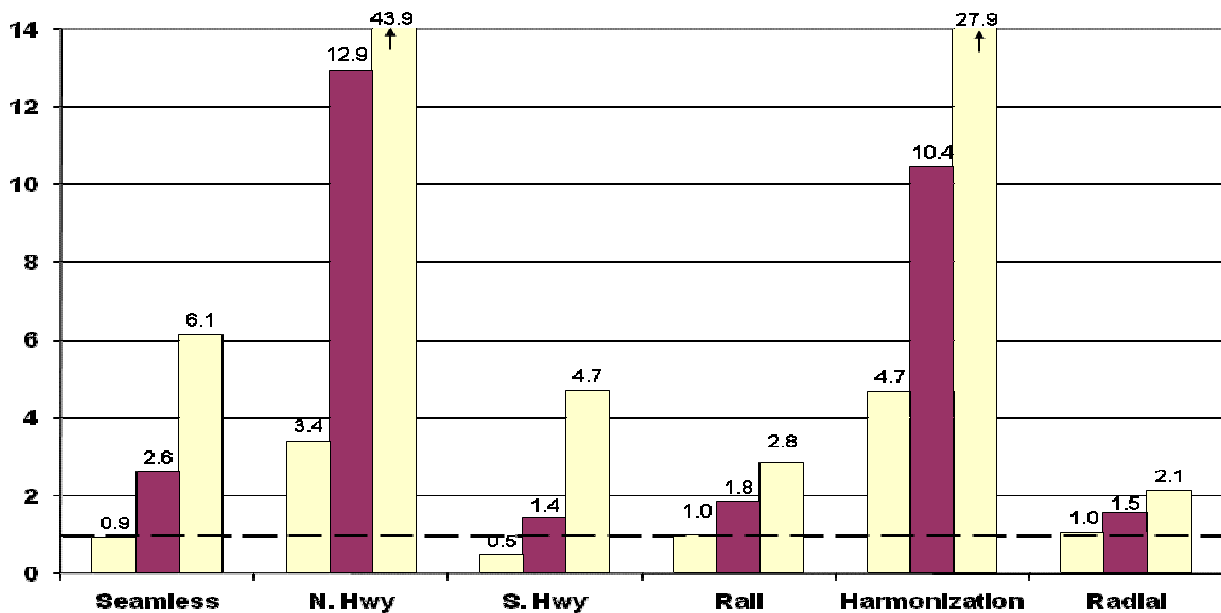


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cost in that it largely involves regulatory change, although the change in allowable truck weights will affect some bridge costs. The northern-highway scenario has a relatively low cost largely because it avoids populated areas.

- All of the scenarios have benefit–cost ratios greater than 1 using the median estimates of benefit and cost.
- All but two scenarios show a benefit–cost ratio equal to or better than 1 for even the worst case.
- The potential benefits for all scenarios are contingent on a range of supporting policies, programs, and investments by public and private parties.

Benefit–Cost Ratios of CanAm Region Investment Scenarios



- The costs of those additional actions are not counted; therefore, the graph should be interpreted mainly as showing that there are potential benefits significant enough to warrant further investigation.

Allocation of Benefits

Pursuing these strategies leads to several avenues of potential benefits to the NE CanAm Region and beyond, including the following.



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Benefits for All States and Provinces in the Northeast CanAm Region

For New York, Vermont, New Hampshire, Maine, Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador

- Expand total volume of overseas (outward) trade originating in this region by enhancing global competitiveness via a broader network of alternative east–west rail and truck interconnections among Canada’s Continental Gateway, the Atlantic Gateway, and the Northeastern United States.
- Expand “bi-national” (U.S.–Canadian) trade and tourism through reduction of border-related customs delays and regulatory inconsistencies that raise costs for businesses on both sides of the border.
- Enhance “within-region” trade and tourism among states and provinces through a more complete network of interconnections between the region’s U.S. and Canadian markets.

For New York, Vermont, New Hampshire, Maine, New Brunswick, Ontario, and Québec

- Reduce vulnerability to future bottlenecks by reducing dependence on truck and rail routes that require passing through the increasingly congested Southeastern New York State–Northern New Jersey–Eastern Connecticut region.
- Reduce cost of intra-national movement, specifically for automobile, truck, and rail, among Canadian provinces or U.S. states.

Additional Benefits for the Seaway Portion of the NE CanAm Region

For Québec:

- Expand intermodal logistics centers around Montréal because additional growth of east–west freight flows can also enhance Québec as a trade link.

For New York State:

- Develop the North Country economy by enhancing trade route connections with Canada.

Additional Benefits for the Atlantic Canada Portion of the NE CanAm Region

For New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador

- Expand port activities enabled by development of a broader set of alternative east–west routes from this region to the Great Lakes Region.

For New Brunswick and Nova Scotia:



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- Enhance business markets in northeastern U.S. border states through enhanced east–west rail or truck routes to them.
- Reduce cost of accessing Québec through alternative direct rail or truck routes.
- Reduce over-dependence on trucking routes to the United States that pass through the congested Boston and New York City regions.

Additional Benefits for the Northern New England Portion of the NE CanAm Region

For central and northern parts of Vermont, New Hampshire, and Maine

- Expand access through development of enhanced railroad and highway routes and services to and from east and west points
- Develop intermodal centers where upgraded east–west rail or truck routes intersect with existing north–south truck and rail routes to create freight and trade “crossroads.”
- Reduce over-dependence on trucking routes to the United States that pass through the congested Boston and New York City regions.

Additional Benefits for Other U.S. States (Outside the NE CanAm Region)

For Southern New England (Massachusetts, Rhode Island, and Connecticut):

- Expand freight connections with the rest of the United States and overseas, thereby reducing vulnerability to capacity limitations of Hudson River crossings and increasing congestion in the New York City area.
- Expand “bi-national” trade with Canada through reduction of border-related customs delays and regulatory inconsistencies.

For the New York City Area:

- Expand the feeder-port system by facilitating the development of other northeastern ports as feeders to the New York–New Jersey ports.
- Reduce congestion of pass-through truck activity in the New York City region that adds little to value while enabling greater capacity for export and shipment of New York State products that produce greater local income.

For Ohio, Indiana, Michigan, Illinois, and Wisconsin:

- Expand trans-Atlantic trade connections through development of a broader set of direct freight links to northeastern ports.
- Expand “bi-national” trade with Canada through reduction of border-related customs delays and regulatory inconsistencies.