

DISCUSSION PAPER: CANADA TRANSPORTATION ACT REVIEW

MESSAGE FROM THE CHAIR

I am pleased to have been asked by the Minister of Transport to lead a Review of the *Canada Transportation Act* (CTA). I am supported by an excellent panel of advisors and by a Secretariat that is independent of Government.

Whether along rivers, wagon trails or rail lines, transportation has played a defining role in shaping the pattern of Canadian settlement, demography and way of life since before Confederation. We lived, worked and forged communities in ways based on the ease and efficiency with which people, goods and services could be transported in pursuit of prosperity and quality of life. Even the pattern and shape of towns, cities and settled rural areas were driven by transportation considerations. Transportation has also been an enabler for economic development.

At critical historical moments governments undertook such 'nation building' projects as the construction of the St. Lawrence Seaway, trans-Canadian railways, pipelines, and the creation of a national airline to internally strengthen the country and provide vital linkages to the international marketplace. Numerous 'developmental' projects were pursued across the country, often recognizing that it could take decades before critical mass and commercial viability would be achieved.

Today the transportation system is substantially more market-based, deregulated and competitive. The focus has turned to more operational considerations such as safety, environmental impacts, security, efficiency, surge capacity, competition and adaptability of the transportation system. In a rapidly changing economic environment where global supply chains, technology and market conditions are constantly evolving, the CTA Review provides an opportunity to consider how Canada's transportation system can best support Canada's future growth and prosperity.

The objective of the Review is to provide an independent assessment of how federal policies and programs can ensure that the transportation system strengthens integration among regions while providing competitive international linkages. It's also timely to again consider the role of transportation as a developmental catalyst, particularly for the massive, varied and remote geography that comprises northern Canada. If developmental projects are again to play a significant role, should the role of government focus on providing a framework to harness private capital, or should it be a form of more direct financial involvement?

The various modes of transportation are also subject to differing levels of foreign competition, ownership and participation in Canada's domestic marketplace. A status quo assumption for the long term seems improbable. We need to think and plan ahead, through shocks and perturbations, likely to characterize a changing world.

While global trends and patterns over the next 20-30 years are neither predictable nor within our control, we can assess plausible alternative futures and consider how to strengthen our adaptive capabilities. Our ability to compete and prosper long-term will require anticipatory vigilance in surveying the distant horizon and taking concrete steps now. In the world of transportation, lead times are long and even well planned execution can take years.

The Review will draw on information and advice from interested Canadians including industry representatives, users, experts, and other stakeholders representing a broad range of perspectives and experience from across the country.

The CTA Review Secretariat has prepared a paper providing context for the Review. The purpose of the document is to stimulate discussion, not restrict it or impart bias. What are the emerging patterns and trends Canada must adapt to, and what approaches offer the greatest potential to support the prosperity of generations to come?

I encourage interested persons to provide your submission before December 30, 2014. A website has been established to ensure ease of communications for those we are unable to meet in person.

I am committed to reporting back to the Minister of Transport with the Review's recommendations by December 24, 2015.

Hon. David L. Emerson, P.C.
Chair

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1. OVERVIEW OF THE REVIEW:

On June 25, 2014, the Honourable Lisa Raitt, the Minister of Transport, launched the Review of the *Canada Transportation Act* (CTA). As mandated by the legislation, the Review will be completed before the end of 2015 and a report submitted to the Minister for tabling in Parliament. The Minister appointed the Honourable David Emerson to Chair the Review, and appointed five advisors: Marcella Szel, Marie-Lucie Morin, Duncan Dee, David Cardin and Murad Al-Katib.

The CTA is the federal framework legislation for Canada's transportation system and for the Canadian Transportation Agency's role in the administration of several parts of the Act. The CTA sets out the National Transportation Policy, which emphasizes that transportation services will be based on competition and market forces. The Policy states that government regulation and intervention should generally be limited to cases where the market cannot otherwise achieve satisfactory economic, safety, security, environmental and social outcomes. The mandate for the Review also includes any other Act of Parliament that pertains to the economic regulation of transportation, for example, the *Canada Marine Act*.

The Review will draw on research and consultations conducted across Canada during 2014-15. Input will be solicited from a broad range of stakeholders, including: the transportation industry and its users; other levels of government; aboriginal organizations; environmental groups; and the general public. The Review will also examine the global developments and pressures that may create challenges and opportunities for Canada's transportation system, and identify the best practices of other countries facing similar changes.

To encourage discussions and submissions, this paper provides the context for the Review and underscores the importance of transportation for Canadian prosperity and quality of life in an interconnected and globalized world.

2. GLOBAL CONTEXT IMPACTS CANADIAN TRANSPORTATION:

It will be important for the Review to consider the key global trends and developing patterns likely to have an impact on Canada and the transportation system over the next 20 – 30 years.

Transportation networks, along with other sectors, form a vital foundation for a modern economy. As a trade-reliant nation with its population spread over a vast landscape, Canada is particularly dependent on a well developed, fluid and efficient transportation system. Virtually every sector, including transportation, operates in the context of global supply chains and networks that are themselves highly dependent upon transportation and logistics. Complicating matters further, the most profitable and efficient transportation business may at times be at odds with the competitive success of other

companies, sectors and regions, which can give rise to pressures for government intervention.

Canada's transportation sector is profoundly influenced by global trends. For example, while the United States (U.S.) remains Canada's largest trading partner, emerging economic powers such as Brazil, China, and India are driving competition and redefining business models that require restructuring of global supply chain strategies. Emerging economies are creating greater demand for raw materials and energy, and are altering traditional international transportation patterns. Complicating all this is the recent, but significant, resurgence of the U.S. and Mexico in terms of global manufacturing. Will we be back to the future?

Meanwhile emerging economies are also becoming leaders in the global transportation industry. For example, Chinese shipping lines and Middle Eastern air hubs are taking rapidly growing shares of international trade and travel.

Productivity levels in Canada have been a longstanding concern of governments and industry, as they affect the country's competitiveness in the global economy. The Conference Board of Canada's International Ranking of Labour Productivity Growth, current as of March 2013, notes that Canada's productivity is negatively affected by "weaker inward and outward foreign direct investment, low R&D intensity, a weak innovation record, and the relatively small percentage of Canadians with advanced degrees in science and technology." If this characterization applies to transportation, a major input across sectors, competitive problems could be compounded. Over time, such a competitiveness gap could negatively impact Canadians' prosperity relative to the rest of the world. For example, the Organization for Economic Cooperation and Development (OECD) forecasts that over the next 30 years, the Canadian economy will grow at a slower rate than many of our key competitors (see Figure A.1 in Annex A). According to the OECD forecast, the gross domestic product per person of countries including the United Kingdom and Australia will surpass that of Canada.

Canada's transportation system will have to be globally competitive: efficient, reliable, innovative, responsive to change, and resilient to disruptions.

The geography, demographics and population of Canada also create specific challenges for the development and operation of a safe, secure, efficient and environmentally sustainable transportation system. One of these challenges is to ensure that Canada has sufficient labour capacity to design, build and operate the transportation system. The majority of the population is clustered in a few cities, most of which are situated within 200 km of the U.S. border, suggesting the continued importance of seamless and harmonized transportation systems in North America.

As supply chains and trade flows become increasingly globalized into complex, multi-platform networks, the risk profile changes and both the probability and potential severity of disruptions become greater. Effective management of risk requires

understanding a broad spectrum of threats: piracy, terrorism and cyber attacks, earthquakes floods, extreme weather, labour strife, political upheaval, and pandemic disease. Being prepared with plans for prevention, mitigation and recovery from disruptions is taking on added importance. Resilience is a system's ability to respond and adapt to a wide range of disruptive situations and is becoming a key subject in transportation planning.

Canadians, on a per capita basis, are among the world's biggest consumers of transportation. Yet, the importance of quality and affordable transportation for transporting Canadians for business and pleasure purposes continues to grow. In spite of the revolution in digital communications, demand for travel continues to expand at a faster pace than the economy as a whole. And, as the Canadian population continues to age, there will be challenges ensuring that the transportation system is accessible to the increasing number of persons with mobility or other limitations, and in managing the costs of these changes.



Canada has a vast and rugged geography through which the transportation system must navigate, much of which also requires environmental stewardship. As awareness of environmental responsibility becomes more prevalent, many corporations have implemented corporate sustainable responsibility policies and participate in programs which publicly demonstrate their commitment to a green economy or a green supply chain. For example, the Dutch Green Award, which was developed in the Netherlands, rewards ships with high safety and environmental standards, as well as internationally promotes greening the supply chain and the economy. In the U.S., the Environmental Protection Agency developed the SmartWay® Program which was created to reduce transportation-related emissions by creating incentives to improve the supply chain fuel efficiency. Many Canadian companies are also participating in the SmartWay® Program, implemented by Natural Resources Canada, to transport goods in the cleanest and most efficient way possible.

3. THE CANADIAN CONTEXT:

Transportation is an important component of the Canadian economy because it provides jobs, moves goods and connects people within Canada and around the world.

The transportation and logistics sector is itself a critical part of Canada's economic base, accounting for nearly \$66 billion in gross domestic product, representing more than 4% of Canada's total gross domestic product, and employing more than 860,000 Canadians in 2013. Additionally, the transportation system moves more than \$1 trillion worth of goods each year; its efficiency is an important competitive factor across the economy.

There has recently been a pronounced change in Canada's trade profile, with implications for transportation. From 2003 to 2013, the manufacturing sector's share of total exports by value has declined from 57% to 48%, while exports of crude petroleum, iron ore, grain and forestry products have significantly increased. Over the same period, Canada's imports of manufactured goods from overseas have nearly doubled, while manufactured imports from the U.S. have remained relatively constant. This is reflected in a shift to growing overseas exports of bulk goods and imports of containers that are moving primarily by rail through marine ports, while most Canada-U.S. trade in manufactured goods moves by truck.



Source: Asia Pacific Foundation of Canada from Trade Data Online, Industry Canada.

The organization and governance of Canada's transportation system is largely the result of policies of deregulation and divestiture pursued by governments in the 1980s and 1990s. Examples include the privatization of the Canadian National Railway Company (CN) and Air Canada, and the establishment of Nav Canada; the transfer of port and airport operations to private commercial entities; and the bilateral opening of a number of international air services markets. These changes resulted in increased productivity, lower prices and dramatically improved infrastructure across the transportation system. But by the mid-2000s, most of the gains had been realized, and the transport sector faced new challenges to remain competitive in the face of more stringent environmental regulations, the dramatic emergence of developing economies and changing global trade patterns.

Transportation networks in remote areas are mainly used for transporting goods for export, such as minerals, energy, agriculture and forestry products. Developing these resources requires extending the domestic transportation network to remote areas where potential impacts on communities and the environment call for careful

stewardship. The long term challenge of ramping up developmental infrastructure will present governments with the need for innovative financing models consistent with the fiscal challenges that will likely continue for some time. This may require different investment frameworks or incentives which encourage greater private sector investments in infrastructure. A few examples include the sharing of royalties to cover costs; taxes or depreciation incentives to reduce risk and costs; agreements on retention of infrastructure after decommissioning by developers, etc.

Canada first established environmental regulations in the early 1970s, and has continued to assess, monitor and protect the environment for today and for future generations. Government departments work together on reducing emissions, pollution prevention, sustainable development and encouraging the greening of the supply chain. The Canadian transportation fleet reflects the introduction of regulations to reduce air pollutant emissions, as well as voluntary initiatives undertaken to reduce greenhouse gas emissions and fuel consumption. For example, the Canadian rail sector has been voluntarily reducing its air pollutant emissions since 1995 and railways have updated their fleets to voluntarily meet the U.S. emissions standards. Moreover, the work of the Canada-U.S. Regulatory Cooperation Council (RCC) has included a voluntary action plan to reduce greenhouse gas emissions from both Canadian and American locomotives. The air pollutant emission reductions and the voluntary action plan will help railway companies remain competitive while maintaining a level playing field with respect to trade and the cost of operations.

While Canada is geographically situated to connect the economic heartland of North America to markets in Asia with the shortest shipping distances, only relatively-small shares of this booming trade had been using the Canadian transportation system. Beginning with the Asia-Pacific Gateway and Corridor Initiative in 2006, the federal government brought industry and other levels of government together to identify issues for attracting trade and investment. Issues identified ranged from congestion and bottlenecks, to regulatory barriers, to poor awareness of Canada's location and its advantages. The gateways and trade corridors approach, described in greater detail below, involves partnerships between governments and industries to invest in strategic infrastructure, improve policies and regulations, modernize governance frameworks and promote Canada's Gateways in key markets overseas.

As in other sectors of the economy, the development and adoption of innovative technologies and practices in the transport industry is a mark of competitiveness. Examples span from new information technologies, such as real-time tracking of cargo movements throughout a supply chain using Radio Frequency Identification (RFID) and Global Positioning Systems (GPS); to operating practices that improve fuel use in freight vehicles; to construction techniques that reduce maintenance costs and prolong the life of infrastructure built on northern permafrost.

In Canada, industry works with government, universities and others to develop and deploy innovation, but research indicates that some modes of transport are more likely to adopt new communications technologies than others, and that Canada as a whole

lags international competitors in research, development and commercialization of new technologies. A transport sector that is slow to implement innovations today risks limiting a country's global competitiveness in the future.

Use of Advanced Communication Technologies

Percentage of Canadian enterprises, within respective industries, using advanced communication technologies

Industry	2009	2012
Agriculture, forestry, fishing and hunting	N/A	6.8
Oil and gas extraction	22.5	37.9
Pipeline transportation	42.2	25.0
Mining and quarrying (except oil and gas)	13.8	28.5
Electric power generation, transmission and distribution	43.4	41.0
Manufacturing	23.7	20.4
Warehousing and storage	35.7	20.0
Transportation		
Air transportation	28.2	21.7
Rail transportation	14.5	27.7
Water transportation	39.3	30.2
Truck transportation	23.4	27.0
Transit and ground passenger transportation	26.7	23.7
Scenic and sightseeing transportation	28.7	28.5
Support activities for transportation	21.4	27.9

Source: Survey of innovation and business strategy, advanced technology use, by North American Industry Classification System (NAICS), Statistics Canada

Canadian consumers expect high quality service standards from transportation providers. Canada's system of consumer protection for the travelling public is based on formal complaints to the Canadian Transportation Agency. Dispute resolution options ranging from facilitation to mediation to adjudication are available. Decisions are made on a case-by-case basis and only apply to the service provider targeted in the complaint, not to the industry as a whole. Other jurisdictions, such as the U.S. and European Union, have more prescriptive regulatory regimes based on pre-established consumer rights associated with specific issues. While providing greater certainty, there are tradeoffs that need to be taken into consideration in such policy frameworks.

Also related to air transportation, Canada has implemented a proactive approach to bilateral passenger and cargo-related negotiations with other countries that promote connectivity. The 2006 *Blue Sky* policy is intended to encourage competition and new air services, provide opportunities for Canadian airlines, enable marketing opportunities for airports, support trade objectives and support safety, security and efficiency. Since 2006, Air Transport Agreements (ATAs) have been concluded that cover at least 80 countries. Transport Canada states that it will seek to conclude more ATAs and that Asia and Latin America are the two regions of focus.

4. RAIL IN THE NEWS:

The catastrophic Lac Mégantic derailment and the unprecedented backlog of grain shipments in 2013 have, for various reasons, made the consideration of issues related to rail transport an early priority for the CTA Review.

4.1 Rail capacity and services

Canadian railways operate vast and integrated North American freight networks that supply industries and consumers with the goods they need, delivering products to domestic and external markets. They are also an essential backbone for supply chains across the economy and their performance can substantially affect the performance of the economy as a whole. With little or no government capital or operating subsidies, the railways operate in a largely commercial environment, raising capital in financial markets based on their profitability and competitive performance. Railways are also among the largest investors in the Canadian transportation system.

By the nature of rail systems there is an element of ‘natural monopoly’ and ‘captive shipping’ that gives rise to regulatory oversight and intervention. Accordingly, the CTA contains a number of “shipper protection” provisions to address concerns about the potential abuse of market power by the railways. The Canadian Transportation Agency is empowered by the Act to enforce these provisions.

Not surprisingly, a variety of disruptive events can and do occur. In 2013, for example, Western Canada produced a record grain crop of 76 million metric tonnes, one third larger than the previous year. Harsh winter weather further challenged the railways’ ability to move higher volumes of grain and other commodities, in particular to Vancouver for export (see Figure A.2 in Annex A)



The federal government has studied and amended the CTA a number of times to address the issue of western grain movements and improve shipper access to arbitrated service agreements with the railways, in cases where such agreements cannot be negotiated commercially. In response to the 2013-14 grain backlog, the Government brought forward the *Fair Rail for Grain Farmers Act* (and the associated regulations), to facilitate quick and effective grain transportation to market by imposing weekly volume requirements on railway companies for the movement of grain. Other initiatives are also underway, including the creation of a Commodity Supply Chain Table that brings together senior industry officials in a dialogue on logistic issues affecting bulk commodities. However, the situation created by last year’s backlog in grain deliveries raises important questions related to the capacity and adaptability not only of the rail sector, but other links in the supply chain as well.

It is important to place events such as the grain shipment crisis in a broader context. Changes in the global economy have increased demand for commodities, which has

increased the demand for bulk shipment by rail (see Figure A.3 in Annex A). Bottlenecks in shipping oil and gas by pipeline have also driven up the demand for a rail alternative. At the same time, innovations in agriculture are increasing domestic yields of grains, pulses, and oil seeds. Similar developments are occurring in the oil, gas, and mining sectors. As a result, what some see as a temporary surge may be part of a permanent shift that would require increasing capacity for the shipment of bulk commodities. For instance, it is projected that bulk iron ore, potash and coal exports will continue to grow until at least 2025, after which the precise investment intentions are unknown for replacing existing mines (see Figure A.4 in Annex A). For large regions of the country, prosperity is at risk if the transportation system fails to deliver. For Canada, a reputation as a reliable source of products and trade partner is at stake.

4.2 Federally-regulated passenger rail services

Passenger rail service is one mode where the federal government continues to provide direct subsidies. It should be noted that passenger rail service is widely subsidized in other parts of the world including Western Europe, the U.S and Australia. In Canada, small railway companies and VIA Rail Canada Inc. (VIA), a Crown corporation are federally-subsidized (see Figure A.5 in Annex A for the federal government's funding levels for VIA). Even on its busiest routes in the Windsor-Quebec City corridor, VIA requires federal subsidies. On routes serving smaller markets, passenger rail operates with per-passenger subsidies 10-20 times greater than that of the Windsor-Quebec City corridor. (Note: passenger rail service is not the only mode of travel that is subsidized by government, for example, as fuel taxes are collected, in part, to offset the cost of road construction and maintenance.)

Passenger rail service should be assessed in its public policy context: the level of government funding, availability of travel options, potential efficiency improvements, regional and remote community access, intermodal partnerships, environmental sustainability and congestion on roads. The kind of passenger rail service Canadians want, and how much they are prepared to pay for it over the long-term, will contribute to the development of recommendations for the Review.

5. STRATEGIC INFRASTRUCTURE:

The long-term viability of strategic infrastructure will ensure that transportation networks can facilitate efficient trade and travel flows. How to set priorities in a world of scarce resources is the question.

When businesses decide where to invest and locate facilities, the quality of transportation infrastructure and global connectivity are key considerations.

There has been a significant increase in the levels of public investment in transportation infrastructure over the past decade. Funding peaked between 2009 and 2011 with the stimulus programming implemented in the wake of the global economic downturn. For

example, Infrastructure Canada indicates that the federal contribution amounts since 2006 are approximately \$4.8 billion for transportation infrastructure and approximately \$4.7 billion for public transit. Federal investments in transportation infrastructure are implemented by a number of departments and agencies, under the banners of a variety of programs that range from the ongoing maintenance of highways through National Parks, to Infrastructure Canada's Building Canada Plan, to regional economic development initiatives. As a result, it is very difficult to get a complete picture of how much the federal government spends on transportation infrastructure in any given year.

This funding has been distributed under a number of different programs with a variety of objectives and delivery mechanisms. Most are time-limited programs that contribute funding on a cost-sharing basis towards specific projects that are assessed according to the eligibility criteria of the given program. Some programs have specific policy objectives such as developing gateway and trade corridor infrastructure, while others are ongoing transfers to provinces, territories and municipalities, such as the Federal Gas Tax Fund.

Although some federal infrastructure programs have targeted the most important infrastructure for trade and travel flows, Canada has no unifying policy framework from which national priorities can be established across transportation modes.

The National Highway System is based on relatively clear and objective metrics, and was developed in consultation with provinces and territories that own and operate the vast majority of the road infrastructure. In contrast, the National Airports System, and Canada Port Authorities designations, were developed principally to facilitate the commercialization of these federally owned assets, rather than to establish priorities for a strategic system of transportation assets. There has been little change in these designations since the 1990s to reflect changes in the marketplace. Federal involvement in passenger rail and ferry services in some cases is a legacy of agreements made with certain Provinces when they first entered Confederation.

In March 2014, the federal government launched a 10-year, \$53 billion New Building Canada Plan to fund infrastructure projects in partnership with other levels of government and the private sector. Although federal infrastructure programs have been improving and expanding the transportation network in all parts of Canada, demands for funding far exceed resources available at a time when all levels of government are facing fiscal constraints. A number of recent studies have indicated that there remains a serious 'infrastructure gap' in Canada. For example, the Federation of Canadian Municipalities determined in 2007 that Canadian municipalities had an accumulated infrastructure deficit of about \$123 billion for existing infrastructure and a need for \$115 billion in new infrastructure. In May 2004, TD Bank Financial Group reported that the accumulated annual deficit in infrastructure financing, to appropriately maintain or replace existing public assets, was in the range of \$50 billion to \$125 billion. Priorities must be established, choices made and, at a minimum, new technologies and innovative approaches to pricing, financing and utilizing existing infrastructure will be necessary.

Canada has a vast stock of existing infrastructure that needs to be maintained as it ages. The ownership and management of this infrastructure is widely dispersed among different levels of government, different agencies of those governments, and the private sector. Federal policy, such as the National Infrastructure Component of the New Building Canada Fund, has considered maintenance to be the responsibility of the operator, and federal funding programs have explicitly favoured the construction of new capacity over rehabilitation of the old. Establishing a financially sustainable balance between operating and maintenance funding versus new construction will be important. Recognizing the need for such balance, the New Building Canada Plan has allocated \$1.25 billion in funding for Public-Private Partnerships (P3s). P3s are an effective, long-term, performance-based approach to procuring public infrastructure. To date, P3s have been successful at all levels of government for delivering major infrastructure projects; e.g., Confederation Bridge.

The approach to infrastructure funding can affect the efficient evolution of the transportation system. By investing directly in a particular part of the system, governments may create excess capacity, discourage the rationalization of capacity within the system, or create an unlevel playing field between the different modes of transportation. While the National Transportation Policy is neutral regarding what mode should carry a product/person on a given trip, the majority of federal transportation infrastructure funding contributes to new highway capacity. Most of these investments have targeted the National Highway System (see Figure A.6 in Annex A for a map of the National Highway System).

The infrastructure of other modes of long distance transport such as air, marine and rail freight are almost entirely self-financed based on user charges. So large are the taxes, fees and charges that a significant contribution is made available to the general revenues of government. This has implications for achieving the right balance of investment across the various modes of transportation and could spell trouble for the long term competitive position of Canadian air carriers, airports and possibly marine ports.

6. REGIONAL, REMOTE AND NORTHERN TRANSPORTATION:

Canada's transportation network faces unique challenges in terms of connecting remote communities including throughout the North and ensuring that natural resource developments contribute to economic growth in these regions.

While the Canadian population is increasingly concentrated in large metropolitan areas, remote First Nations communities and the North have some of the country's fastest population growth rates. Many of the new natural resource developments that are fuelling economic growth are located far from population centres, with growing numbers of workers being brought to distant job sites by air. As a result of such trends, regional

and northern transportation networks will continue to provide important connectivity, even if they do not carry “nationally-significant” volumes or values of traffic.

“The need for a strong network of transportation infrastructure in the territories has intensified as a result of population growth, increased demand for ecotourism and investment in resource development projects.” – Budget 2014

The effects of climate change are having significant impacts on the existing transportation system in the North, such as changing operating seasons for winter ice roads and marine corridors, and increasing infrastructure maintenance costs. These dynamics are taking place within an already high-cost operating environment marked by relatively low traffic volumes, harsh weather conditions, long distances, short seasons, limited competitive/alternative choices of service, and environmentally-sensitive regions. Overlapping jurisdictions between federal, provincial and territorial governments and aboriginal groups add additional layers of policy complexity.

As outlined in Canada’s Arctic Foreign Policy, which articulates priorities in the Arctic region, the Government of Canada does not expect the Northwest Passage to be a safe or reliable marine transportation route in the near future, due to multiple navigational challenges. However, improved conditions may mean that there will be more ships accessing the Northwest Passage for tourism, seasonal re-supply, research activities and natural resource exploration. As a member of the International Maritime Organization, Canada has “assumed responsibility for providing navigational warning and meteorological services to facilitate the safe management of marine traffic in Arctic areas” that comprise much of Canada’s arctic coastline, including the Northwest Passage.

Moreover, the Arctic Council, with Canada holding chairmanship from May 2013 to May 2015, is an intergovernmental forum that facilitates cooperation, coordination and interaction among the Arctic States. The theme of Canada’s chairmanship is “Development for the people of the North, with a focus on responsible Arctic resource development, safe Arctic shipping and sustainable circumpolar communities”. Such an approach may lead to economic development and greater international trade for northern communities and the nation at large.

The social and economic prospects of the North will also be primarily tied to specific natural resource projects, themselves subject to boom and bust based on volatile prices and fluctuating global demand. Given the high start-up and operating costs for projects in the North, a slight decline in the price, or forecast demand for a commodity, could cause a project to be stopped at any time with implications for the long term development of nearby communities. Nevertheless, transportation infrastructure is the key to unlocking potential developments that can be leveraged to improve connectivity and services in remote northern Canada.

For the territories, important decisions must be made, particularly around developments to pursue, while at the same time investing in regional networks and the North's connections to the other parts of the national transportation system.

Ports and airports in remote areas of Canada often do not have sufficient traffic volumes to generate revenues necessary to maintain their infrastructure, while continuing to meet the strengthened safety and security standards that Canadians expect. Similarly, air, bus, rail and ferry passenger services that provide regional connectivity in many parts of the country are often challenged to maintain year-round routes and frequencies for small numbers of travellers. Federal, provincial and territorial governments subsidize some of these services, but there is no clear federal policy and levels of taxpayer support vary widely between modes and jurisdictions.

However, when a new competitor does successfully enter a regional market, the benefits to consumers can be significant. The most compelling example is the tremendous growth in travel connecting Toronto and northern Ontario, where the addition of one airline led to an increase in the frequency of flights, along with lower prices, and new choices for residents of smaller and more remote communities previously lacking adequate service. While the benefits of improving connectivity and facilitating trade and investment are tangible, the question remains as to what extent a smaller regional market can sustain multiple competing services over time, and through the cyclical ups and downs in the regional economy. If traffic declines and a competitor leaves the market, the result can be a vicious spiral of rising prices, declining demand, loss of connectivity and service, with ripple effects throughout a region's economy.

The challenges are most acute in remote regions. There, communities and industries are the most dependent on air and sea transport to link them into the national transportation system and gain access to essential goods and services. Populations and economies are often too small to yield the traffic volumes necessary to allow the transport sector to deliver these vital services cost effectively.

7. CANADA'S STRATEGIC GATEWAYS AND TRADE CORRIDORS:

Canada's Gateways connect Canada, Asia, Europe and Latin American markets with direct routes and an integrated and efficient transportation network.



Gateways are critical convergence points in Canada for the international flow of people, cargo, information and capital. Transportation and communications infrastructure, sound policies, people with specialized skills, knowledge and technology all support the varied flows and interactions between Canada and the rest of the world. Complementing gateways are a variety of

links and corridors channelling exports and imports to and from international markets.

While global supply chains and transportation networks are constantly evolving to reduce the costs and friction of transportation, Canada is geographically well-positioned to serve as a hub for trade and travel between a number of rapidly growing markets in North America, Asia and Latin America. Shorter distances, relative lack of congestion, attractive tax rates, and other business advantages can often offset the cost and inconvenience of crossing more than one border.

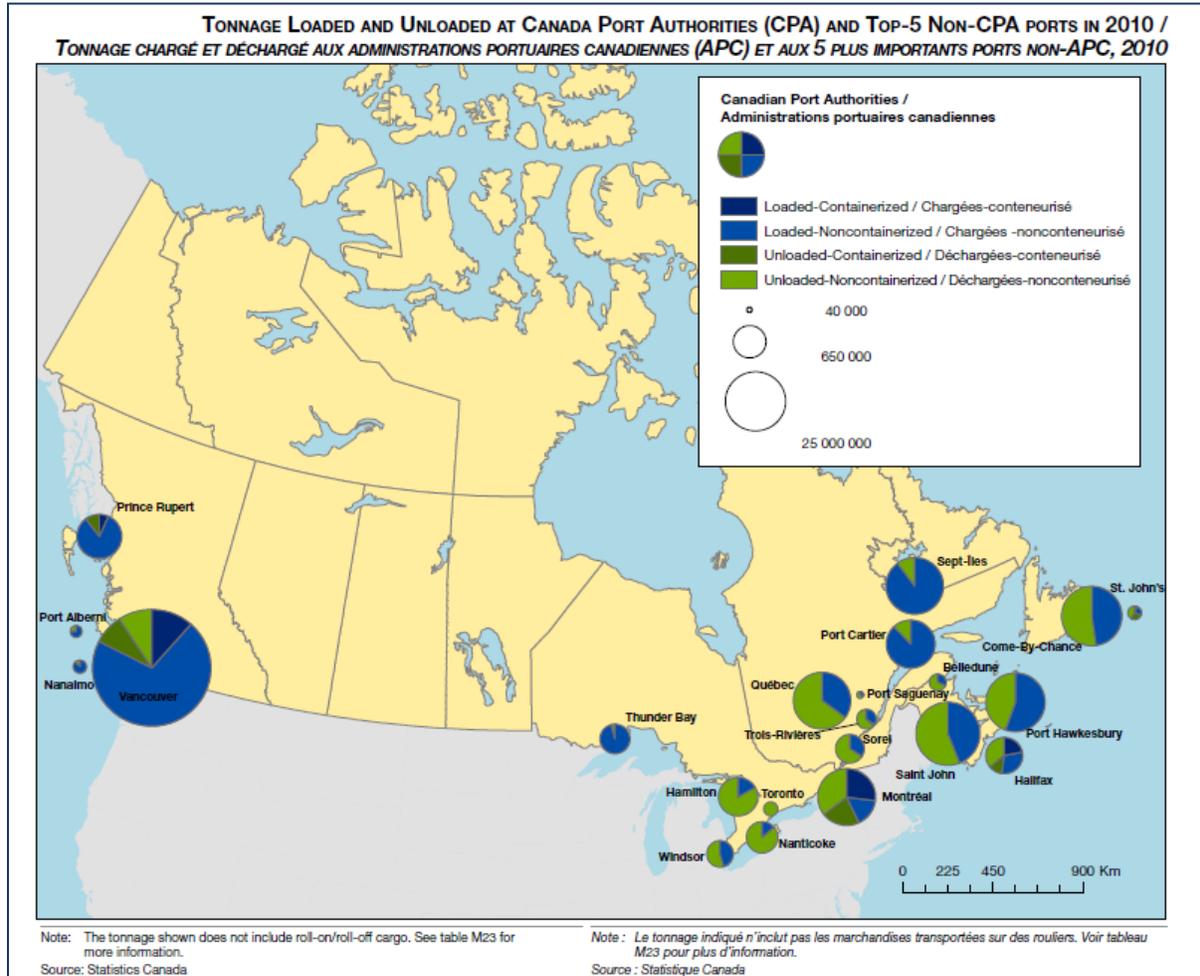
In recent years, billions of dollars worth of transportation infrastructure projects have been initiated by the federal government in partnership with provinces and other public and private sector partners to increase capacity, efficiency and reliability of vital port, airport, railway, highway and border crossing infrastructure across the country. Federal infrastructure investments have been complemented by policy and regulatory initiatives to improve the efficiency, flow and reliability of Canada's eastern and western gateways. Measures include the amalgamation of the Port of Metro Vancouver, technology applications such as container tracking and truck reservation systems, international cooperation, and international communications and marketing of Canada's advantages for trade and investment.

The Asia Pacific Gateway and Corridor Initiative, for example, was launched in 2006 with impressive results: the ports of Vancouver and Prince Rupert are attracting growing market shares of North American trade with Asia. Steps have also been taken to promote eastern gateways and corridors. Halifax, Montreal and St. John have the potential to link Latin America, Europe-Mediterranean and Southern Asia. In all cases there is stiff competition with U.S. and Mexican gateways and corridors.

Despite the recent downturn in the North American automotive sector, Canada-U.S. trade in manufactured goods remains an important part of Canada's economy. The majority of this trade moves by truck across international bridges in Windsor, Sarnia and the Niagara Falls region of Ontario, with the Windsor-Detroit crossing accounting for nearly half the total traffic. A new international bridge is being constructed at Windsor, led by the Government of Canada, to reinforce capacity for movement of goods between Central Canada and the U.S. An ongoing irritant for the Canadian transportation and logistics sector has been the lack of U.S. recognition of Canadian screening processes and technologies to allow all cargo to be scanned only once as it enters the North American market. To address some of these impediments, in February 2011 the Canadian and American Governments announced the *Beyond the Border Action Plan*, which is a shared declaration by Canada and the U.S. to establish a new long-term partnership to work together at the border, enhance border security and accelerate the legitimate flow of people, goods and services. Work remains to further improve border processes and reduce trade impediments between Canada and the U.S.

Ongoing globalization, and potentially transformative changes such as expansion of the Panama Canal and a proposed new canal in Nicaragua, will continue to drive businesses to re-examine their supply chain management practices. Canada will have

to anticipate and react quickly to the various threats and opportunities that could affect the long-term competitiveness of our gateways and corridors.



8. GOVERNANCE FRAMEWORKS:

It is important to assess existing governance frameworks and practices of the transportation network in order to determine whether they continue to meet the evolving needs of Canadians and businesses.

As noted above, the federal government transferred the management of most federally owned transportation facilities to commercial entities, which were considered to be best placed to operate and develop these assets efficiently and reflect the interests of the community. However, the models of divestiture varied: from the outright privatization of services and assets to CN and Air Canada; to the leasing of federally-owned airports to private, not-for-profit corporations; to the establishment of commercialized Port Authorities that remain agents of the Crown. The powers, the structures for decision-making, the chains of accountability to stakeholders and the levels of federal oversight vary in each case.

Canada's largest port and airport authorities manage strategic infrastructure that handle growing levels of international trade and travel in a safe, secure and efficient manner. In most cases these facilities are managed well, providing industry and the Canadian public with infrastructure and services of internationally-recognized quality, on a not-for-profit basis, on land that is owned by the federal government. However, there are questions as to whether the existing governance models provide the right incentives; for example, with respect to balancing costs and amenities for users, and for attracting new and competing services.

Federal policies identify these facilities as significant economic infrastructure providing vital services to the economy and the public. At the same time, they have become a de facto extension of the tax and revenue base at both the federal and provincial levels (see Figure A.7 in Annex A). Airport rents, aviation fuel taxes and a variety of taxes on air travellers have become a significant source of revenue for the federal government.

Many of the Canadian transportation sector's most fierce global competitors, such as global hub airports and air carriers, benefit from subsidies and/or ownership by governments that treat investments in transportation infrastructure and services as part of their national economic strategies. Canadian air policy requires that users pay the full cost of building and maintaining airport and air navigation infrastructure and operations, the provision of security screening, relatively high fuel taxes and they rely on sources of finance that is not taxpayer supported. This policy approach, along with a relatively small internal market, contributes to Canadians paying among the highest airfares in the world as well as creating an impediment to opening the market to foreign competition.

A number of other agencies and authorities have their mandates and governance structures set by federal legislation under the Minister of Transport's authority. The Canadian Transportation Agency holds a particularly important role as a quasi-judicial body that resolves commercial and consumer-related transportation disputes, and as an economic regulator that determines and issues authorities, licenses and permits to transportation carriers under federal legislation. Others, such as the Canadian Pilotage Authorities (*Pilotage Act*), Canada Port Authorities (*Canada Marine Act*), and various federal bridge authorities were created under different laws, at different times, and for different purposes, and as a result, have a wide variety of governance structures.

Recognizing the importance of these entities for the oversight of diverse aspects of transportation in Canada, from resolving competition complaints, to overseeing safe shipping, to operating billions of dollars worth of infrastructure, it is important to ensure they are structured to enable rigorous oversight, and balanced, timely decisions.

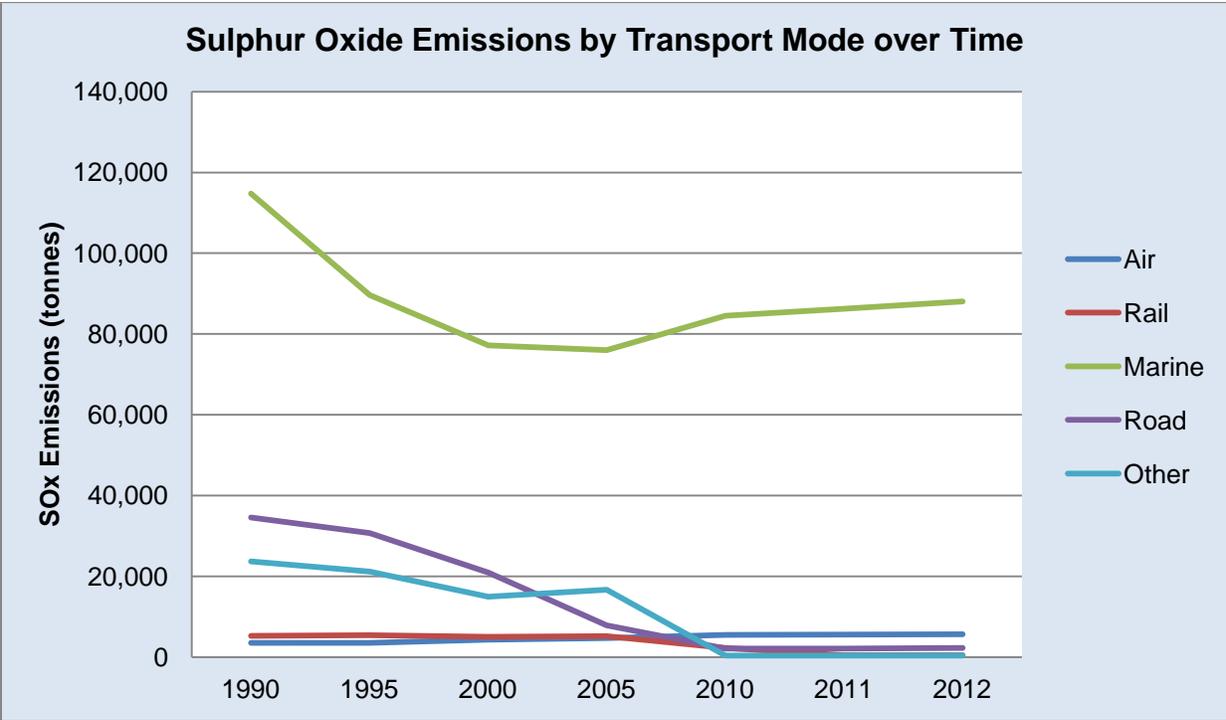
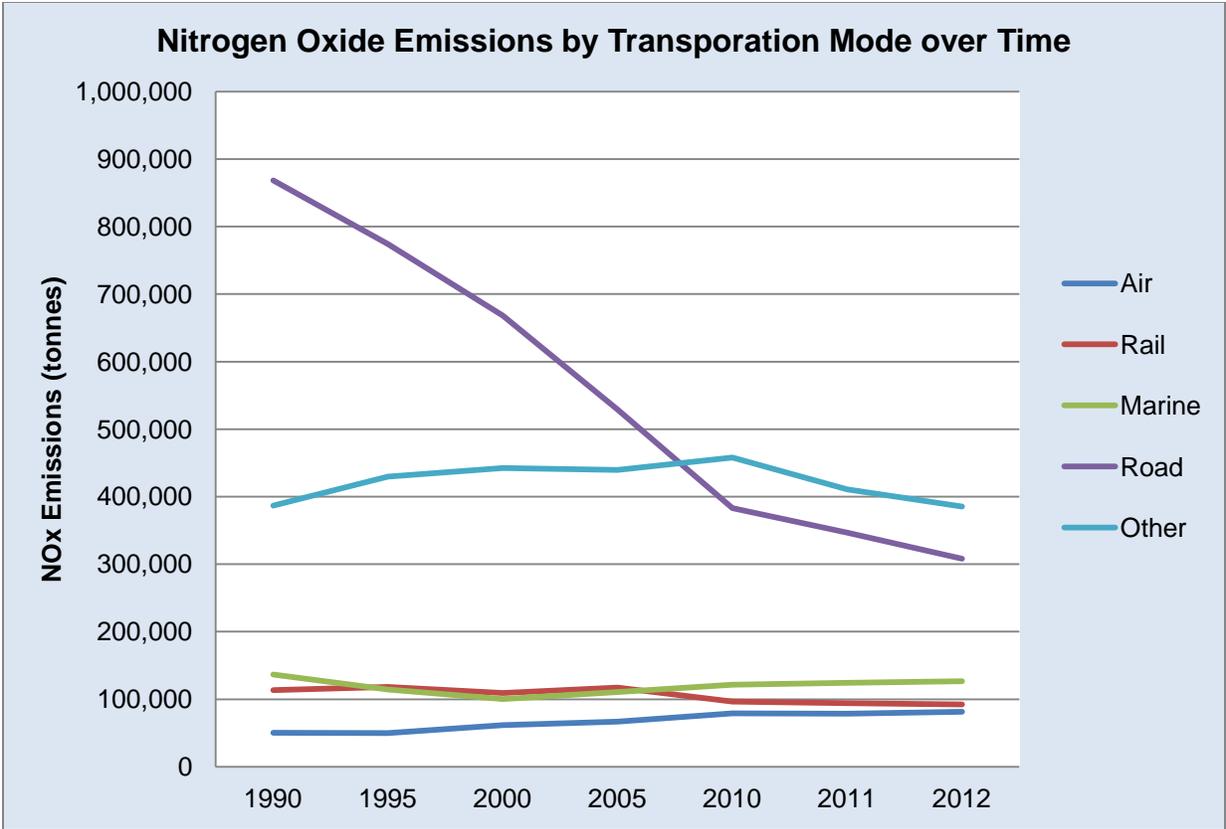
9. THE ENVIRONMENT:

Achieving high standards for sustainable transportation contributes to protecting our shared environment and can bring about economic benefits as well.

There is growing public concern with the impact that environmental pollution and carbon-dioxide emissions will have on the future quality of life and the livability of communities. Consequently, there are growing expectations for the transportation system to limit its impact on the quality of Canada's air, water and land. In addition to reducing the environmental footprint of transportation activities, the transportation system will also need to address the consequences of climate change, e.g., rising sea levels; changes to the permafrost; and an increase in catastrophic natural events. Protection of the environment is becoming more challenging as trade and economic activity expands to sensitive areas such as the North. The kinds of cargo being transported can also have particular environmental effects, most acutely, in incidents where dangerous goods are spilled.

Canada has engaged, both domestically and multilaterally, to craft working solutions that would address environmental problems while mitigating the wider impacts on efficiency and transportation costs, with varying degrees of success. For example, since the early 1980s, significant progress has been made to reduce emissions of acid rain causing pollutants, sulphur and nitrogen oxides from the transportation sector. Many modes of transportation now use low sulphur fuels to reduce sulphur oxide emissions, and use after-treatment technologies to reduce nitrogen oxide emissions. However, reducing greenhouse gases is more complex and greenhouse gas emissions are directly correlated to the amount of fuel consumed.

On the other hand, opportunities exist for the transportation system to exploit the "green economy" as consumers and businesses target environmentally-friendly products, services and supply chains. Ideally, environmental approaches would complement economic initiatives, and any long-term strategies to promote the efficiency and productivity of the transportation sector would give careful consideration to environmental objectives.



10. ACCESSIBLE TRANSPORTATION:

Ensuring the accessibility of the transportation network for persons with disabilities will continue to be an important objective in light of Canada's aging population.

The *Canada Transportation Act* includes provisions that require the federally-regulated transportation system to be accessible without undue obstacles to the mobility of persons with disabilities. These regulations have been in force since the mid 1990s, although more recent approaches have emphasized voluntary codes of practice dealing with, for example, communications and the accessibility of aircraft, passenger terminals, rail cars and ferries, standards for accessibility, and equal access to the network. These codes were developed by transportation service providers in consultation with the community of persons with disabilities.



In 2012, nearly 14% of Canadians reported living with a hearing, vision, speech, cognitive or mobility disability, and among seniors (aged 65 and over), that proportion exceeded 43%. Canada's population is aging, and according to Statistics Canada, the proportion of senior citizens could grow from about 15% today to

over 25% in twenty years (see figure A.8 in Annex A). As a result, both the total number, and the relative share of the population living with disabilities can be expected to increase as well. Ensuring that transportation continues to be accessible to this growing group of Canadians, while also maintaining competitiveness and efficiency, will be a challenge both for the sector and government.

11. REGULATION, HARMONIZATION AND TRADE:

Improving conditions for doing business is about removing unnecessary barriers and aligning regulatory approaches with key trading partners, which can bring about competitiveness, increase productivity and encourage innovation.

Canada's approach to regulation is summarized by the *Cabinet Directive on Regulatory Management*: "Regulation is a key policy instrument used by government to enable economic activity and to protect the health, safety, security, and environment of Canadians." The Government of Canada, through its Red Tape Reduction Action Plan, announced in October 2012, has brought about ambitious systemic regulatory reform to cut red tape in many sectors, including transport and trade. Important steps to reduce administrative and compliance burden have been taken and businesses continue to expect that regulations will be introduced only when necessary.

Regulatory alignment between trading partners reduces red tape by avoiding unnecessary duplication, increasing compatibility and reducing the burden for business. The RCC was launched in 2011 and its first phase consisted of 29 initiatives to align regulatory approaches, with important input from stakeholders. The transportation initiatives focussed on rules for cars, trucks, trains, shared waterways and general issues. Actions taken include alignment of Canadian and U.S. regulations on motor vehicle safety, and more effective regulatory alignment on rail safety. The next phase of the RCC will institutionalize joint planning and collaboration between Canadian and U.S. regulators.

Governments have had to respond to a rapidly changing safety and security environment by developing and adopting regulations and other measures. These can be based on domestic approaches, or on standards developed through multilateral bodies such as the International Civil Aviation Organization. Mutual recognition of security protections between countries is an important way in which governments address current conditions and risks. However, layers of new regulation and screening requirements also have the effect of imposing new costs and time delays on the movement of people and goods, with ripple effects throughout the economy. An ongoing challenge for regulators is to be nimble in the face of change, without imposing unnecessary new costs or delay.

12. CONCLUSION:

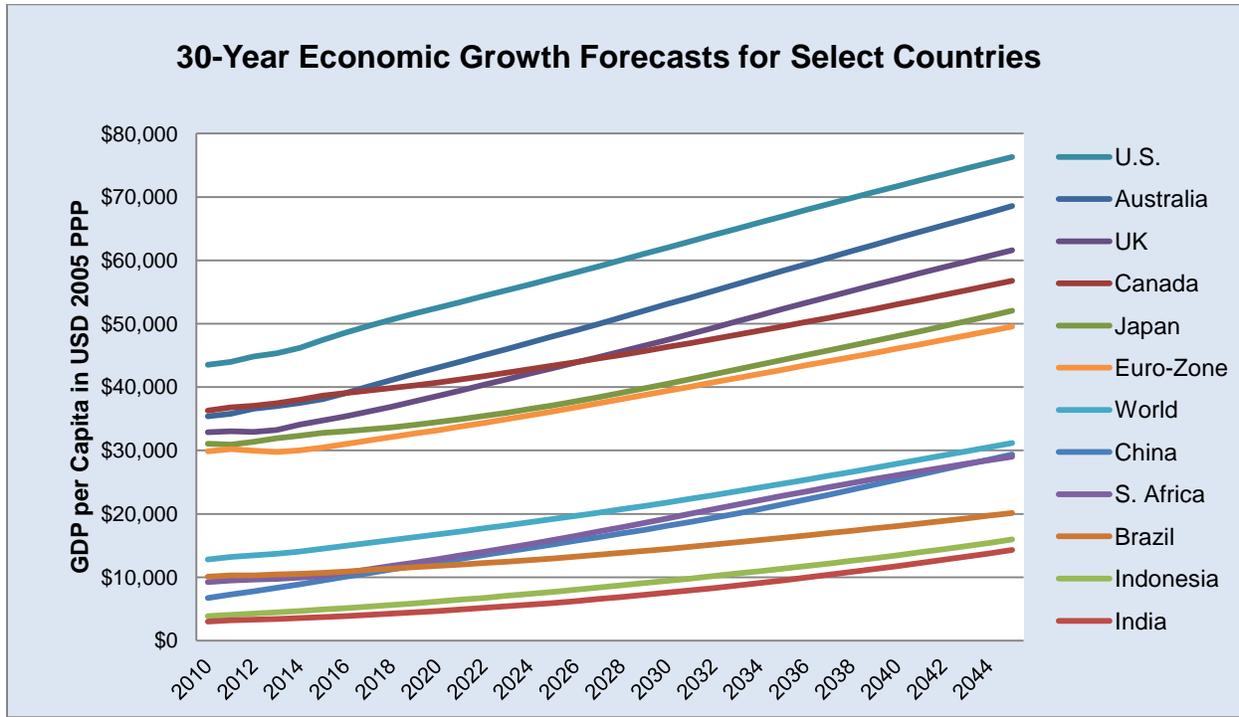
The submission process is an important component of the Review. It is hoped that this document will stimulate ideas and discussions. Interested parties are encouraged to send submissions to the Secretariat before December 30, 2014. The Chair, Advisors and the Secretariat want to hear from interested parties on the major issues to be addressed to fulfill the mandate of the Review.

For further information, including for sending a submission, please contact the Secretariat at:

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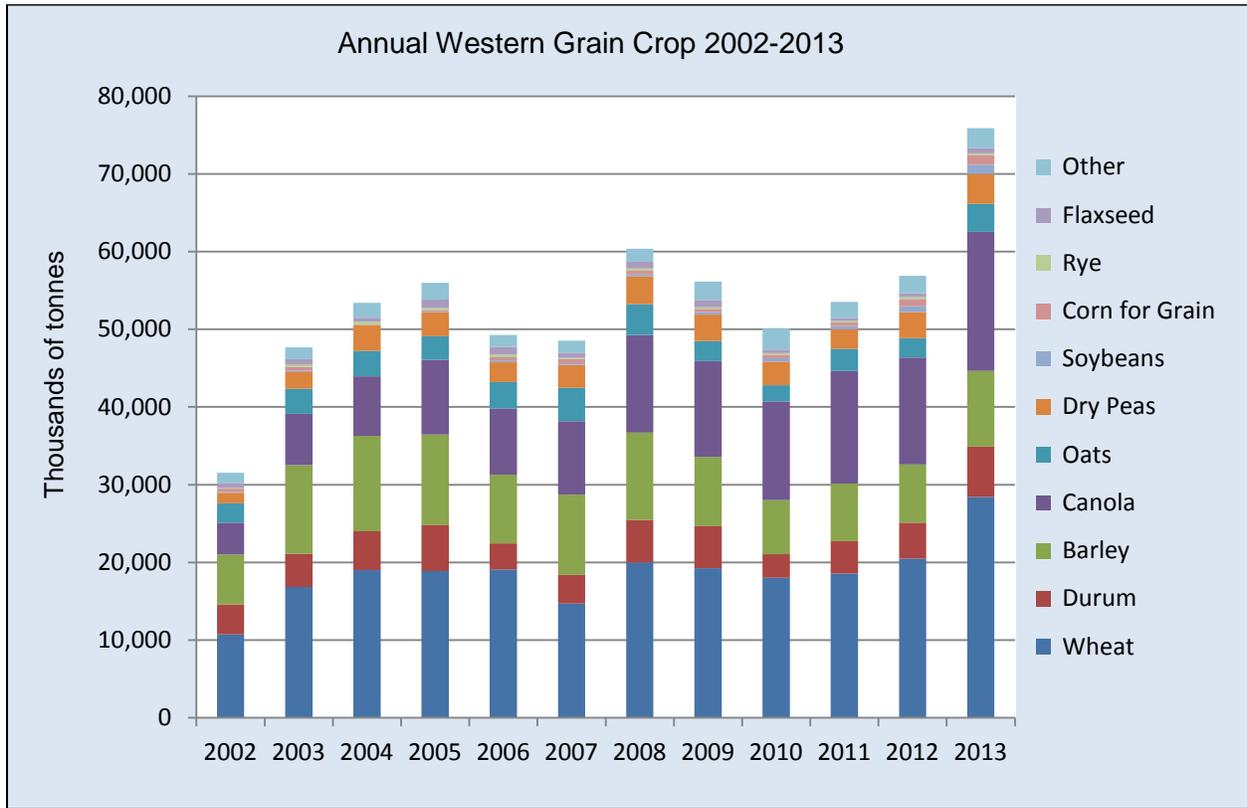
ANNEX A - CHARTS AND TABLES:

Figure A.1 - 30-Year Gross Domestic Product Forecasts for Select Countries



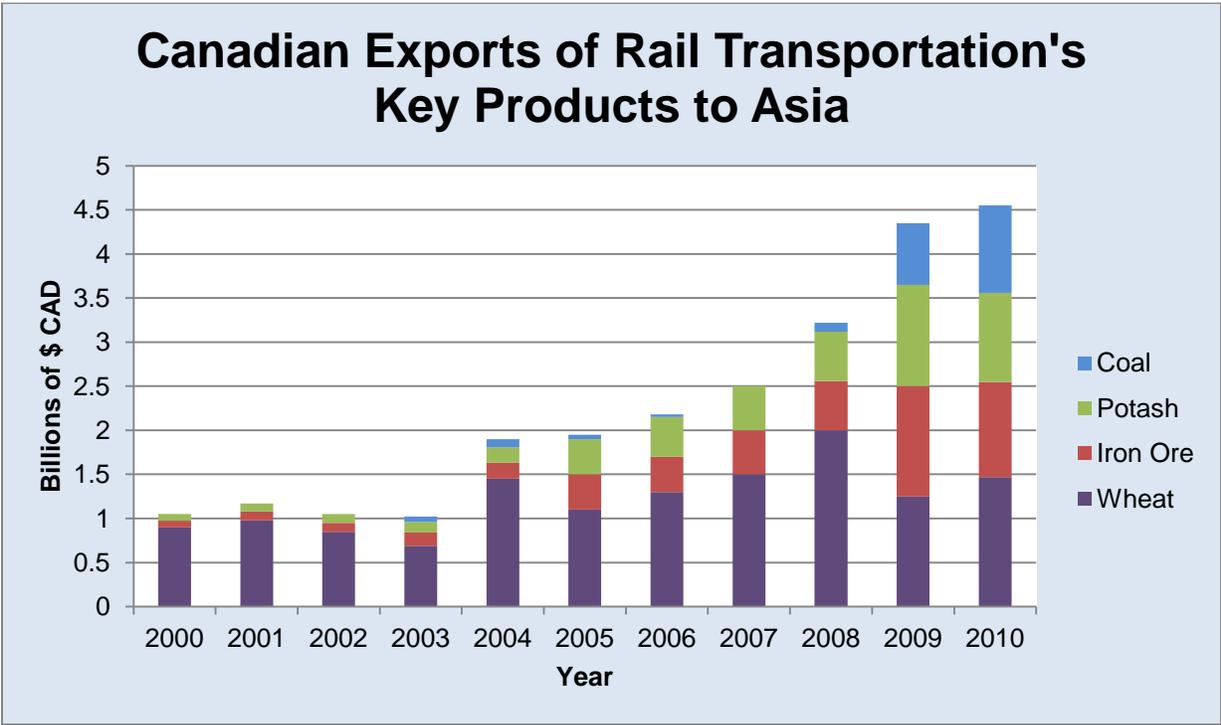
Source: Organization for Economic Cooperation and Development

Figure A.2 – Western Canadian Grain Production (thousands of tonnes)



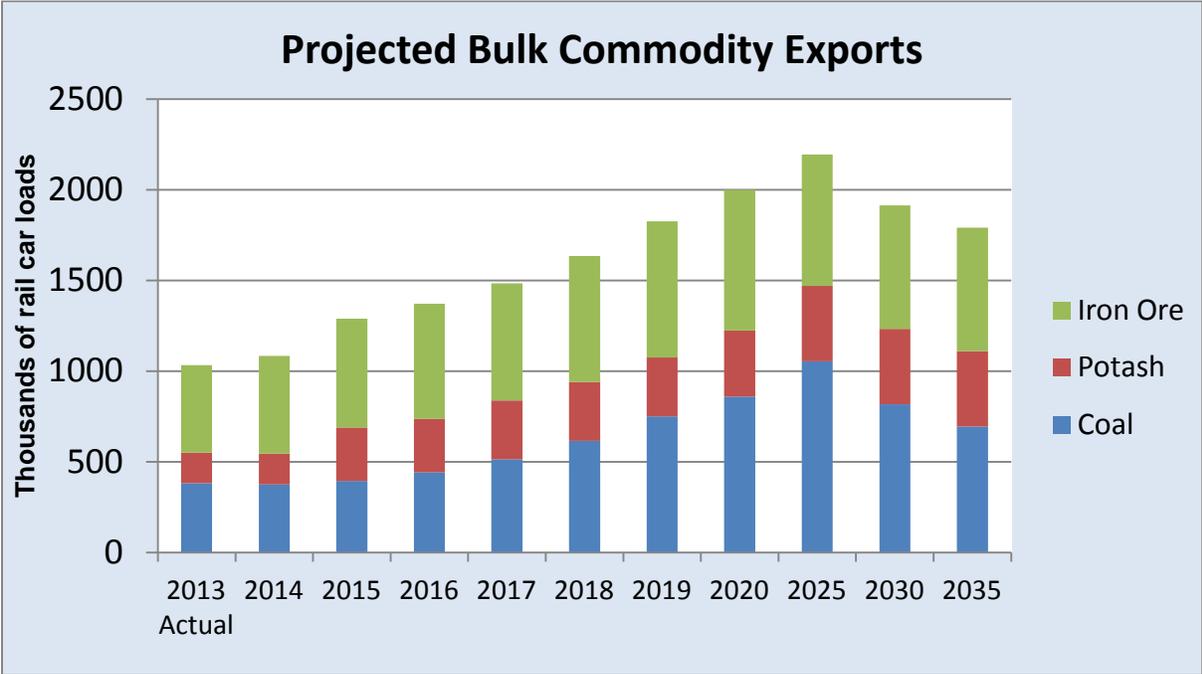
Source: Statistics Canada

Figure A.3 – Canadian Exports of Rail Transportation’s Key Products to Asia



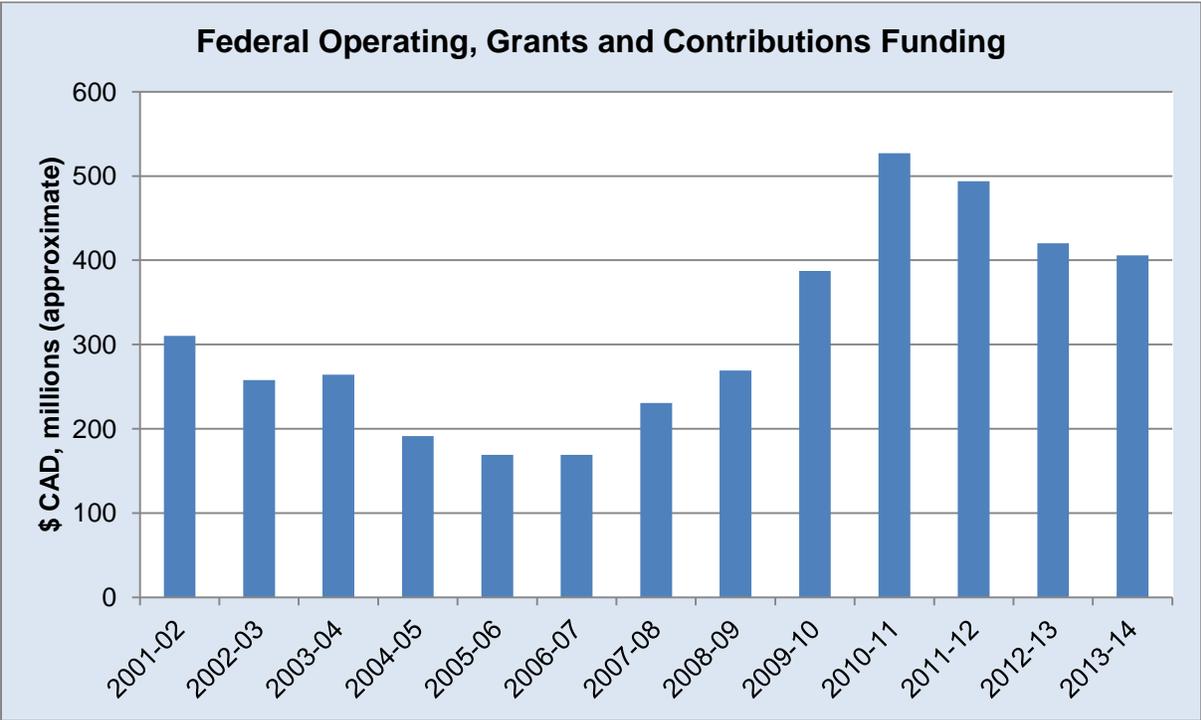
Sources: Industry Canada; Conference Board of Canada

Figure A.4 – Bulk Commodity Exports – Projected



Source: Company Reports, Wood Mackenzie, AME Group, International Fertilizer Industry Association, Natural Resources Canada

Figure A.5 – Government of Canada Payments to VIA Rail Inc. 2001-2014



Source: Transport Canada

Figure A.6 - The National Highway System



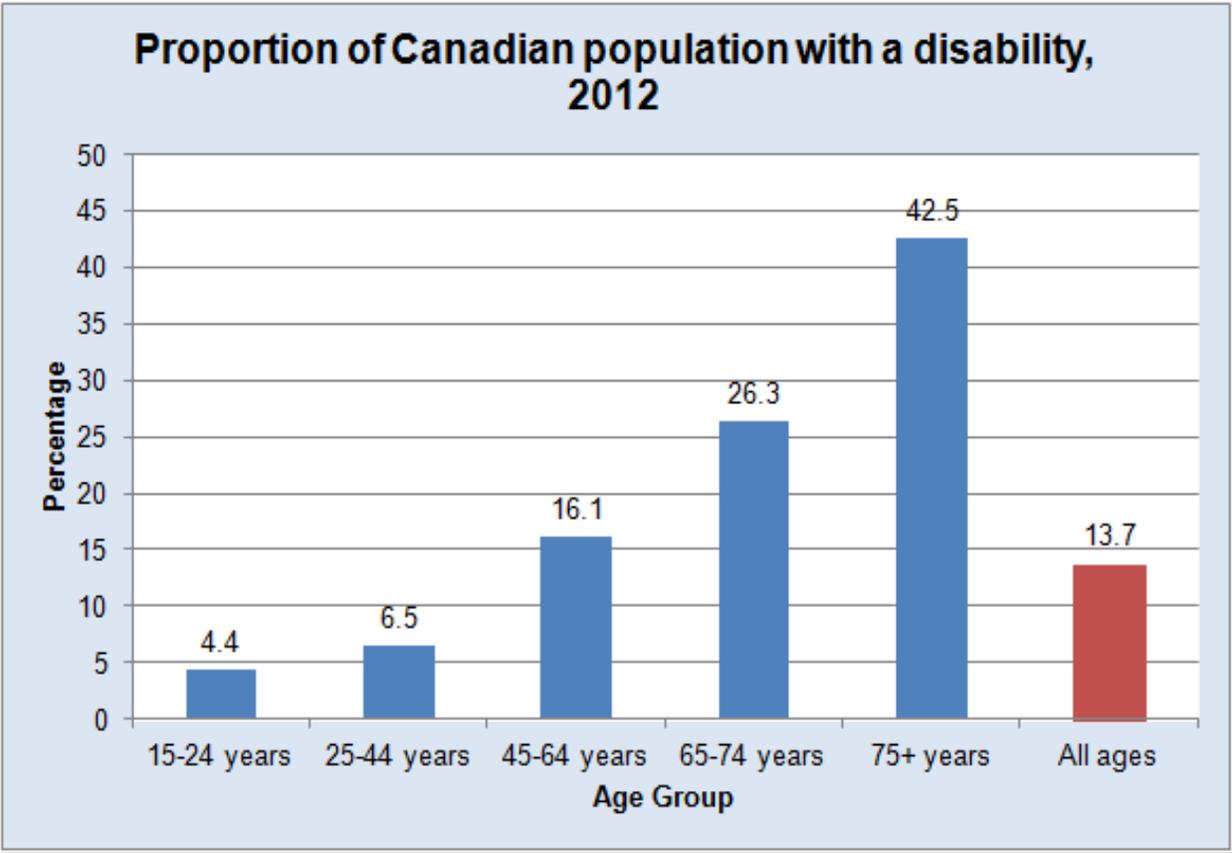
Source: Transport Canada

Figure A.7 - 2013: Port and Airport Revenues and Payments to the Federal Government

Airport Authority	Gross Revenue	Airport Rent	Avg Rate
Toronto-Pearson	\$1,117,534,000	\$128,877,000	11.53%
Montréal	\$446,600,000	\$45,600,000	10.21%
Vancouver	\$434,183,000	\$42,272,000	9.73%
Calgary	\$351,326,000	\$34,761,000	9.89%
Edmonton	\$182,844,000	\$15,380,000	8.41%
TOTAL (18 Airports)	\$ 3,099,753,000	\$291,720,00	9.41%
Port Authority	Gross Revenue, 2013	Gross Revenue Charge	Average Rate
Vancouver	\$210,900,379	\$6,208,414	2.94%
Montréal	\$87,357,000	\$3,819,000	4.37%
Toronto	\$50,293,020	\$2,411,000	4.79%
Prince Rupert	\$39,302,561	\$1,800,000	4.58%
Québec City	\$30,814,552	\$1,300,000	4.22%
TOTAL (18 Ports)	\$547,300,000	\$19,313,000	3.53%

Source: Transport Canada

Figure A.8 - Proportion of the Canadian Population Living with Disabilities



Source: Statistics Canada