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FINAL REPORT

Evolution of Canadian Railway Economic Regulation and Industry Performance under Commercial Freedom

Prepared for:

The Railway Association of Canada

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Solutions for growing economies

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Acronyms / Abbreviations

Agency	Canadian Transportation Agency
CAGR	Compound Annual Growth Rate
CN	Canadian National Railway Company
CP	Canadian Pacific Railway Company
CTA	*Canada Transportation Act*
FOA	Final Offer Arbitration
GIC	Governor in Council
NTA	*National Transportation Act*
NTA, 1987	*National Transportation Act, 1987*
RAC	Railway Association of Canada
RTK	Revenue tonne kilometre
UK	United Kingdom
US	United States
WGTA	*Western Grain Transportation Act*

1 Introduction

1.1 Background

On June 25, 2014, the Government of Canada launched the Review of the *Canada Transportation Act* (CTA) as required under section 53 of the CTA, including the appointment of a Chair of the Review and five Advisors.[1] Under the current legislation, a report is to be provided to the Minister eighteen months after the appointment of the persons mandated to conduct the Review. As in the past, engagement and advice will be sought from all interested parties. Also as in the past, rail transportation will be a key subject of the Review.[2] Accordingly, the Railway Association of Canada (RAC) has engaged CPCS to prepare this report on rail economic regulation and industry performance in Canada.

1.2 Purpose of this Report

The purpose of this report is to briefly trace and describe the historical evolution of railway economic regulation in Canada, from its beginnings to the present time. It is also to illustrate, using key performance indicators, the performance of the rail industry over the past two and a half decades when it has been operating in a regulatory environment emphasizing commercial freedom – that is, an environment where the basic regulatory principle has been to rely on market and commercial forces as the prime agent directing the industry as opposed to restrictive and intrusive control by regulatory authorities. As will be seen, the era of commercial freedom can be traced to the *National Transportation Act* of 1967. The industry performance measures reviewed in this report have been provided by RAC to CPCS, and date from 1988 to 2013.

1.3 Structure of this Report

This report consists of the following chapters:

- Chapter 1 – Introduction
- Chapter 2 – Evolution of Canadian Railway Economic Regulation
- Chapter 3 – Canadian Railway Performance Under Commercial Freedom
- Chapter 4 – Conclusion

2 Evolution of Canadian Railway Economic Regulation

Key Messages

- Prior to enactment of the *National Transportation Act* (NTA) in 1967, the evolution of railway economic regulation in Canada involved increasingly restrictive regulation, starting with the first *Railway Act* in 1851.
- From 1967 through 2000, there was a succession of regulatory reforms moving toward increasing reliance on market and commercial forces to guide the provision of railway services, while maintaining a number of shipper protections.
- Regulatory changes in more recent years have amounted to stepping back from the direction initiated with the NTA in 1967. Since 2008, new measures have added new restrictions, expanded the Canadian Transportation Agency's authority, and expanded the reach of existing shipper remedies.
- The overall effect of the changes since 2008 has been to modify the balance in the railway-shipper relationship by providing shippers with additional powers.

2.1 The Regulatory Environment Before 1967[3]

Figure 2-1 outlines the major steps in the evolution of railway economic regulation in Canada prior to the enactment of the *National Transportation Act* (NTA) in 1967. With the exception of the period covering the Depression and World War II, the process was one of increasingly restrictive regulation starting with the first *Railway Act* in 1851 and continuing through to the adoption of the Turgeon Royal Commission's recommendations in 1951.

Figure 2-1: Evolution of Canadian Railway Economic Regulation Before 1967

Actions
• 1851 –*Railway Act* required rates to be approved by GIC and pre-published
• 1888 –*Railway Act* gave control over rates to Railway Committee of the Privy Council
• 1897 –Crow's Nest Pass Agreement signed between federal government and CP
• 1903 –*Railway Act* created Board of Railway Commissioners
• 1925 –Crow's Nest Pass rates extended and enshrined in statute by federal government
• 1938 –*Transport Act* authorized "agreed charges" (contract rates)
• 1951 –Turgeon Royal Commission recommendations legislated

2.1.1 The Beginning of Regulation

Canadian government involvement in rail transportation in the 19th and early 20th centuries was centered on promoting railway development, generally for broader national development purposes. Extensive land concessions, government backed loans, cash grants and other inducements enabled railway construction. Most notable was the building of a transcontinental railway to secure British Columbia's entry into Confederation. The railway was, of course, the Canadian Pacific (CP), completed in 1885.

The growth of railways in this early period and their virtual monopoly on transportation led to the beginning of regulation, primarily concerning rates. During the 19th century, freight rates developed largely under laissez-faire conditions. Railways began operating with their own rate structures. Rate setting was based on US and UK experience, and influenced by factors that included the different railways' capital and operating costs as well as competition from US railroads and canals. Over time a regional structure evolved, but there was from the outset much dissatisfaction with freight rates, with complaints over "inequities" and "discrimination."

In 1851, the first general *Railway Act* was passed. Rates were required to be approved by the Governor-in-Council (GIC) and pre-published in the Canada Gazette. No rate was to afford any person or class of persons an undue advantage, privilege or monopoly. Parliament could also reduce the rates of a railway if its rate of return on investment exceeded a certain level, although this had little practical effect.

Growing dissatisfaction with rates led to a new *Railway Act* in 1888. This gave control over rates to the Railway Committee of the Privy Council, required the establishment of a uniform classification of rates, and also eliminated the rate of return provision except for CP. Freight rate provisions were made more specific with respect to discrimination. All rates were to be charged equally to all persons under the same circumstances, but rates for large quantities or long distances were permitted to be proportionately less than those for small quantities or short distances. There was to be no discrimination between different localities except to meet water or other railway competition.

In 1897, the federal government and CP signed the Crow's Nest Pass Agreement. CP agreed to various reductions on the rates for “settler's effects”, and to reduce “in perpetuity” the rates on the outbound movement of grain and flour from stations then in existence in the West to Thunder Bay and points east. In return, the government would subsidize the construction of a rail line from Lethbridge, Alberta, through the Crow's Nest Pass to Nelson, BC.

2.1.2 The Board of Railway Commissioners

Responding to further protests over rates, the McLean Royal Commission was established in 1899 to examine rate grievances and various types of railway regulation. The Commission concluded that more uniformity of rates was necessary, that rates should be reasonable and non-discriminatory, and that this could best be achieved through regulation. Instead of the Railway Committee of the Privy Council, McLean recommended an administrative tribunal similar to the US Interstate Commerce Commission. Policy, however, would remain a government prerogative, and through a right of appeal to the GIC, the principle of Ministerial responsibility would be preserved.

McLean’s key recommendations were incorporated into the *Railway Act* of 1903. Canada’s first federal regulatory agency, the Board of Railway Commissioners, was established. The Board's responsibilities were wide ranging but regulating rates was of primary importance. Comprehensive rules and regulations governing rates were incorporated. Rate publication and notification of changes in rates were mandatory. Tariffs had to be filed and approved for reasonableness and absence of unjust discrimination. Shippers could challenge rates and the onus of justifying them was on the railways. The legislation also imposed a duty on railways to afford reasonable facilities for receiving, forwarding and delivering traffic, and to afford all reasonable facilities for inter-change of traffic.

From 1904 until the 1930's, rate control was designed primarily to restrain railway monopoly power but railway management had considerable discretion to vary rates in accordance with differences in costs of operation and competitive requirements. The exceptions were the rates for grain. In 1925, Parliament enshrined in statute the Crow’s Nest Pass rates for export grain, extending them to all railways operating in the West, to branch lines that had been assessed a differentially higher rate, and (in 1927) to include shipments through all western ports.

2.1.3 The *Transport Act*, 1938

During the 1930s, railway regulatory policy took a different shape. This resulted from the railways' financial plight during the Depression, and the recognition of the growing competition from trucks. Trucking as an industry emerged after World War I. The Duff Royal Commission, 1932, recommended extending federal regulation to all modes with a single regulatory agency, and at the same time relaxation of railway regulation to allow the railways to better cope with the new competition. This included a new type of railway rate, the contract rate, referred to as the "agreed charge."

The *Transport Act* of 1938, was enacted to achieve these objectives. It authorized agreed charges, copied from the UK agreed "flat rates" introduced in 1932, although their use was severely limited by other provisions. The legislation also provided for the extension of regulation to other modes but this was not implemented. Although the legislation fell short of its objectives, the underlying problem of competition between modes was temporarily buried by the demands of World War II.

2.1.4 The Turgeon Royal Commission

The first post-War decade saw much dissatisfaction with the existing rate regulation. The railways were dissatisfied with the size of rate increases being granted, and the delays in their approval, despite the high post-War inflation and the need to rehabilitate and modernize facilities. They were dissatisfied also with their limited freedom to respond to rapidly growing truck competition. Meanwhile, the rate increases being authorized angered the West and the Maritimes where the impact was most felt, and led to appointment in December 1948 of the Turgeon Royal Commission.

The Turgeon Commission concluded that additional regulation was needed. It recommended action to equalize the class rate structure across Canada, and payment of a subsidy to the railways for maintaining the link between East and West, to be passed on through reduced rates. It also proposed that the regulator provide a uniform classification and system of railway accounts. These recommendations became law in late 1951. The Commission also recommended a substitute mechanism for "horizontal" rate increases, to be implemented by the railways but not by legislation.

The results were more restrictions at a time when competition from trucks was rapidly expanding, and when the railways needed to modernize and expand services to accommodate economic developments. The Commission disregarded the attrition of railway facilities that had occurred during the War, the effect of the post-War inflation, and did not foresee the coming highway development and the St. Lawrence Seaway. The Commission's report, and the resulting legislation, also failed to stop rates from increasing. All of this only led to another examination, which came in 1959 as the MacPherson Royal Commission.

2.1.5 The MacPherson Royal Commission[4]

The MacPherson Royal Commission was mandated to inquire into inequities in the freight rate structure, public policy burdens placed on the railways, and ways of achieving a more efficient railway system. The Commission issued a seminal report that still reverberates, recommending no less than the complete dismantling and replacement of the existing regulatory framework. The Commission recognized that the railways no longer operated as virtual monopolies, and recommended replacing the existing regulatory restraints by competition. This was seen as the best way to achieve the most efficient system.

The MacPherson Commission also made the important distinction between transportation policy and the use of transportation as an instrument of national policy. It recommended that the imposed public duties, including unprofitable passenger and branch line services, be withdrawn or adequate compensation provided. It proposed that, apart from the statutory grain rates, there should be only minimum rate controls. Rates should not be less than direct costs, and in cases of significant monopoly, captive shippers should have recourse to a maximum rate control. In addition, existing general subsidies, if retained, should be given to all modes, and user charges should be applied to recover expenditures of public funds for infrastructure.

2.2 Regulatory Reform Between 1967 and 2000

Figure 2-2 outlines the major steps in the evolution of Canadian railway economic regulation from the enactment of the *National Transportation Act* in 1967 through 2000. Over these years, the process was one of successive regulatory reforms moving toward increasing reliance on market and commercial forces to guide the provision of railway services, while maintaining a number of shipper protections to ensure balance in the relationship between railways and shippers.

Figure 2-2: Evolution of Canadian Railway Economic Regulation, 1967-2000

Actions
• 1967 –*National Transportation Act* reforms regulation to foster intermodal competition
• 1983 –*Western Grain Transportation Act* brings Crow Nest Pass rate to an end
• 1987 –*National Transportation Act, 1987* reforms regulation to foster intramodal competition
• 1995 –*CN Commercialization Act* privatizes CN
• 1996 –*Canada Transportation Act* reforms regulation to ease market exit restrictions
• 2000 –Grain revenue cap replaces regulated rates for export grain

2.2.1 The *National Transportation Act*[5]

The MacPherson Commission reported in 1961, but with its radical approach, it took until 1967 for legislation reflecting its recommendations to be enacted. Nevertheless, the *National Transportation Act* of 1967 ushered in an entirely new national transportation policy.[6] The declared objective was "…an economic, efficient and adequate transportation system making the best use of all available modes of transportation at the lowest total cost,…" with this seen as "…most likely to be achieved when all modes of transport are able to compete…."

Based on the MacPherson Commission report, the NTA repealed the rigid constraints on railway pricing and replaced these with minimum and maximum rate limits, the latter applicable to captive shippers. With the focus of the NTA on intermodal competition, the railways were permitted to establish rates in common. The NTA allowed government compensation for some imposed public duties, but not "Crow" grain. With the minimum and maximum rate limits to be based on "variable costs," the legislation necessitated development of complex regulations respecting cost determination. User pay, a key recommendation of MacPherson, was adopted in principle but little was done to actually implement it.

The *National Transportation Act* arose from the MacPherson Commission, arguably the most farsighted of Canada's many inquiries and royal commissions on transportation.[7] As has been noted, a key reason for creating the MacPherson Commission was to find a way of adjusting Canadian rail freight transportation to the post-War reality of trucking. Allowing competition between rail and truck on comparatively equal terms was seen, not necessarily as the preferred solution, but as the only practicable direction for regulation.[8] As such, with the NTA a series of legislative reforms was begun that have transitioned Canadian transportation policy, and rail regulation in particular, to an essentially market and commercially driven system. In the rail mode, this led eventually to the introduction of confidential contracts in 1987 and the loosening of costly restrictions on market exit (see sections 2.2.3 and 2.2.4 below). In the U.S., rail regulation has undergone a similar transformation, although the process, occurring basically in one move with passage of the *Staggers Act* in 1980, could be described as more "revolutionary" than "evolutionary."[9]

2.2.2 *Western Grain Transportation Act*[10]

By the late 1970s, grain forced to move at 1897 rate levels was generating large losses for the railways. At the same time, rising demand for Western resource commodities was creating capacity problems which the railways said they could not solve without a resolution of the statutory grain rate situation. An intensive consultation process ultimately led to passing the *Western Grain Transportation Act* (WGTA) in 1983. While maintaining a legislated rate regime, the WGTA essentially shifted the burden of the costs not paid by producers from the railways to the federal government. At the same time, the WGTA provided for the subsidy to be gradually decreased. Growing constraints on government finances led to repealing the WGTA

in 1995, replacing it by a new rate regime, and a further revised rate regime in 1996. Finally, in 2000, legislated grain rates were replaced by the current maximum revenue entitlement, or "revenue cap," provision (see section 2.2.6).

2.2.3 The *National Transportation Act, 1987*

Following enactment of the NTA, the policy of relying primarily on market and commercial forces to regulate transportation continued and was further advanced. In 1985, the federal government issued a major policy paper, "Freedom to Move." This was the product of an internal government review, not a commission, but it proposed to further promote competition, reduce regulatory burdens, and provide new levers for shippers in their relationship with the railways. The *National Transportation Act*, 1987 (NTA, 1987) flowed from this process.[11]

Focusing on intramodal competition, the NTA, 1987 abolished common rate setting by railways and permitted confidential contracts. The maximum rate limits were eliminated, replaced by mediation and Final Offer Arbitration (FOA), available to all shippers. The NTA, 1987 extended regulated "interswitching" from 4 miles to 30 kilometres, and introduced "Competitive Line Rates" (CLRs). Market entry was eased by replacing "public convenience and necessity" with the requirement for a "certificate of fitness" in order to become a federal railway and operate on an owned or leased line.[12]

2.2.4 The *Canada Transportation Act*

The NTA, 1987 obligated the government to review the act after its first five years in operation. The *National Transportation Act* Review Commission was appointed and submitted its report in 1993. The review took place following the most severe recession (at the time) since WW II. The government responded with passage of the *Canada Transportation Act* (CTA) in 1996. Regarding rail regulation, the most profound changes introduced were the much liberalized rail line discontinuance and transference provisions. These reduced market exit barriers enabled the railways to more effectively rationalize their networks, become more efficient, and led to rapid expansion of the "short line" industry.[13]

Rate provisions in the CTA remained basically unchanged from those in the NTA, 1987, although the requirement that rates set by railways had to cover variable costs was eliminated. The CTA, however, did introduce the Substantial Commercial Harm test. Designed to ensure that only shippers that would suffer substantial commercial harm would be entitled to relief, the test basically applied to CLRs, the level of service obligations, the right to a rate and extended interswitching provisions.[14]

2.2.5 CN Privatization

The importance of transportation to Canada, with its large land mass, thin population and dependence on trade, has often been stated. As noted by two of Canada's most eminent

transportation policy authorities, this reality led to CN (and Air Canada) being established as Crown corporations. Over time, however, it became impractical and undesirable for Crown ownership to continue. First, the government was unable to contribute needed capital and reliance on debt had led to unsuitable financial structures. Second, in a highly competitive environment, Crown corporations could not be used to subsidize non-commercial policy objectives. In 1995, amid much skepticism, CN was totally privatized, creating competition on an equal footing between two privately held, publicly traded national railway systems. CN's successful transformation attests to organizations' potential for change when faced with competition and driven by performance goals.[15]

2.2.6 The Maximum Revenue Entitlement Program

As noted above (section 2.2.2), a "revenue cap" – a ceiling on the total revenue to be earned from moving grain by rail in any crop year, based on volume and length of haul – was established in 2000 to replace the previously legislated rates. The revenue cap is a step forward in placing grain on a more commercial footing as it allows for flexibility in rates and enabling efficiency incentives. However, it has other consequences including acting as an investment disincentive.[16] In addition, it has been noted that when the cap replaced fixed rates for grain, the legislation contemplated the eventual sunsetting of a special regulatory regime for grain.[17]

2.3 Regulatory Change Since 2001

In Figure 2-3, we outline the changes that have been made to the Canadian railway economic regulatory provisions since 2001. These correspond to the changes enacted since the completion of the first *Canada Transportation Act* Review, carried out during 2000-2001. Over this time, and especially since 2008, the process has been one of stepping back from the direction of the commercially-oriented reforms first initiated with the groundbreaking *National Transportation Act* in 1967, and continued with the NTA, 1987 and the enactement of the CTA in 1996.

Figure 2-3: Evolution of Canadian Railway Economic Regulation Since 2001

Bill	CTA Revisions
C-11 (2007)	• Simpler Section 5 reaffirms existing principles, adds references to security and environment. • Mergers & Acquisitions review provisions extended to all modes, not just air • New authority for Agency to mediate and arbitrate disputes. • New authority for Agency to address railway noise and vibration complaints. • New authority for Agency to resolve disputes between railways and public passenger service providers.
C-8 (2008)	• Substantial Commercial Harm test eliminated. • New authority for Agency to investigate and order changes to ancillary charges.

	• FOA provisions extended to groups of shippers.
C-52 (2013)	• Establishes shipper's right to a Service Agreement (confidential contract) and an arbitration process to settle disputes regarding the railway's offer.
C-30 (2014)	• Creates regulatory authority to extend interswitching distances in SK, AB and MB to 160 km • Creates regulatory authority to specify "operational terms" in Service Agreements • Mandates Agency to advise Minister on minimum amounts of grain to be moved by CN and CP in a crop year • Extends to November 2014 quotas on grain movement set by OIC on March 7, 2014

Since 2008, new measures have added new restrictions, expanded the Canadian Transportation Agency's authority, and expanded the reach of existing remedies. New restrictions since 2008 have included legislating that shippers have a right to a Service Agreement or confidential contract (Bill C-52), and mandating minimum amounts of grain to be moved (Bill C-30). Expansion of the Canadian Transportation Agency's authority includes authority to investigate and order changes to ancillary charges (Bill C-8), authority to specify operational terms in arbitrated Service Agreements (Bill C-30), and mandating the Agency to advise the Minister on the minimum amounts of grain to be moved by CN and CP (Bill C-30).

Expanding the reach of existing remedies has included eliminating the Substantial Commercial Harm test (Bill C-8), extending the regulated interswitching distances in the Prairies to 160km from the existing 30km (Bill C-30), and extending access to FOA to groups of shippers (Bill C-8). Prior to 2008, other measures introduced included authorizing the Minister of Transport to review "public interest" issues arising from merger or acquisition proposals relating to any federal transportation undertaking, including rail, while these will also continue to be examined by the Commissioner of Competition.

Significantly, the measures introduced with enactment of Bill C-30, the *Fair Rail for Grain Farmers Act,* are subject to a sunset clause and will be repealed on August 1, 2016 unless postponed by Parliament.[18]

Generally speaking the measures introduced since 2008 have the effect of modifying the balance in the railway-shipper relationship by providing shippers with additional powers. Besides mandating minimum amounts of grain to be moved, these measures include the elimination of the substantial commercial harm test, the provision that any shipper has the right to service agreement, the extended regulated interswitching distances, and the authority of the Agency to investigate and order changes to ancillary charges or associated terms and conditions for the movement of traffic.

3 Canadian Railway Performance Under Commercial Freedom

Key Messages

- Canadian railway industry performance, in terms of rates charged, productivity, profitability, and capital investment, has greatly improved under the regulatory freedoms introduced in 1987 and 1996.
- Between 1988 and 2013, average freight rates charged, as measured by real revenue per tonne kilometre, have declined by 33%.
- Railway productivity has grown impressively since 1988. Labour productivity has been strong over the entire period. Noteworthy, also, are the accelerations in fixed plant and fuel productivity since enactment of the CTA.
- Since enactment of the CTA and privatization of CN, the Canadian railway industry operating ratio has been generally under 80%, well below the average prior to 1996 which exceeded 90%.
- In line with their improved operating ratios, capital expenditures by Canadian railways on their Canadian operations have increased rapidly since the early 2000s, reaching close to $2 billion in both 2011 and 2012.

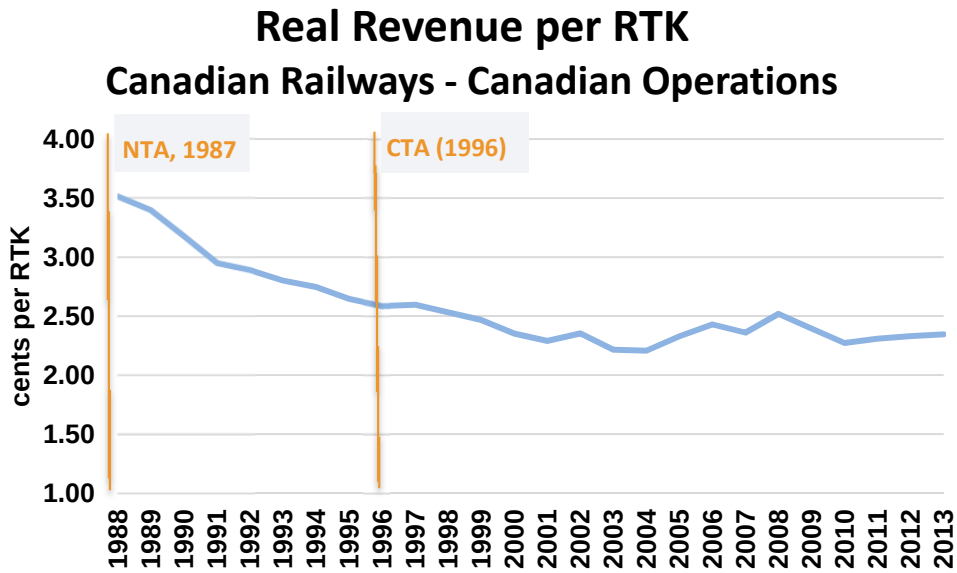
3.1 Introduction

There is a demonstrable link between the economic regulation of railways and railway performance in terms of rates charged, operational efficiency, financial viability, and ability and willingness to invest in infrastructure and systems. Both in Canada and the United States, the record clearly shows how the regulatory freedoms adopted in the latter decades of the twentieth century led to vastly improved performance by the railways in North America.[19] In this chapter, we document the trends in Canada in railway freight rates, productivity, profitability and railway capital investment since the enactment of the NTA, 1987.

3.2 Railway Revenue Per Tonne Kilometre

Figure 3-1 shows the revenue per tonne kilometre, in constant dollars, generated by Canadian railways on their Canadian operations since 1988, the year following introduction of the NTA, 1987. Revenue per tonne kilometre is a proxy for average freight rates, and is shown here in real terms after adjusting for the effects of inflation as measured by Canada's Consumer Price Index. The data in Figure 3-1 cover all railways –federally regulated Class 1 carriers and shortlines, as well as provincially regulated freight railways.

Figure 3-1: Real Revenue per RTK Canadian Railway Operations



Source: Railway Association of Canada.

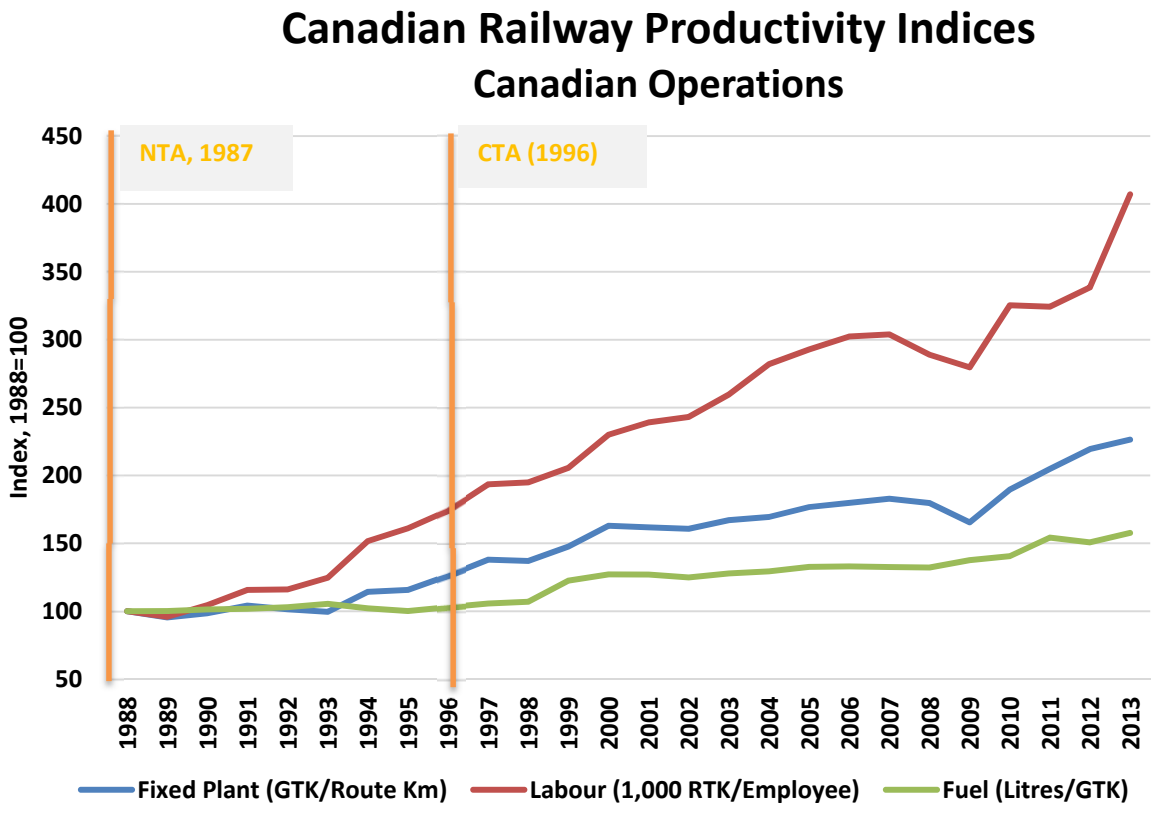
As may be seen, freight rates have on average declined significantly with the pricing freedom introduced under the NTA, 1987, which allowed the railways to enter into confidential

contracts with customers and eliminated the previous regime enabling railways to set rates in common. Between 1988 and 2013, real revenue per tonne kilometre declined 33%, or by about one-third. Although not shown here, the pricing freedoms introduced by the NTA in 1967 had a similar effect, whereby instead of the regulator having control over rates the railways could set their own rates, including collectively.[20]

3.3 Railway Productivity Growth

Figure 3-2 shows the rapid productivity growth that has occurred in Canadian railway operations under the greater commercial freedoms permitted by the NTA, 1987, and CTA of 1996.

Figure 3-2: Canadian Railway Productivity Indices, 1980=100



Source: Railway Association of Canada, CPCS calculations.

The evidence highlights that labour productivity grew very rapidly over the entire period, increasing 7.2% per year (CAGR) between 1988 and 1996, and 5.1% per year (CAGR) between 1996 and 2013. This performance reflects the railways' ability, under a modernized regulatory environment, to utilize assets effectively.

Also noteworthy is fixed plant productivity, measured by gross tonne kilometres per route kilometre, or traffic density on the infrastructure. Between 1988 and 1996, this index increased at a compound annual growth rate (CAGR) of 2.9% per year. However, with the railways' greater freedom to rationalize their networks and control these costs, as permitted by the CTA, the fixed plant productivity index increased 3.5% per year (CAGR) between 1996 and 2013.

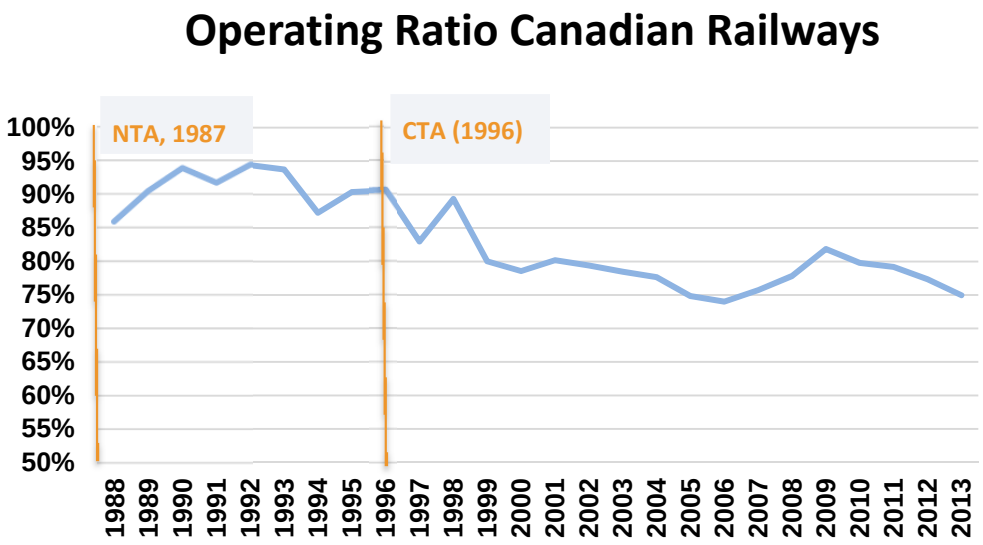
Fuel efficiency also grew significantly more rapid under the CTA, improving 2.5% per year (CAGR) between 1996 and 2013, compared to 0.4% per year (CAGR) between 1988 and 1996. Investments in fleet upgrades, better asset utilization, and innovative management practices (e.g. distributed power and use of longer trains) have enabled railways to improve fuel efficiency.

3.4 Canadian Railway Operating Ratios

Figure 3-3 shows the operating ratio for Canadian railways since 1988. The ratio is an industry standard measure of financial performance. As the ratio of operating expenses to revenue, it indicates how much of each revenue dollar is required to meet operating expenses, and by implication how much remains available to pay interest, taxes, and to provide for investment and growth.

Figure 3-3 shows the railways' improved financial viability that has accompanied the greater freedom to manage costs under the CTA. As may be seen, since enactment of the CTA in 1996 and privatization of CN at the end of 1995, the average railway operating ratio has been generally under 80%, well below the average prior to 1996 which exceeded 90%. The upturn in 2008 and 2009 reflects the deep recession and financial crisis which impacted the global economy at that time. For 2013, the ratio is estimated at 75%, and it should be well below this in 2014 based on CN and CP financial results for the first six months of the year.[21]

Figure 3-3: Operating Ratio Canadian Freight Railways



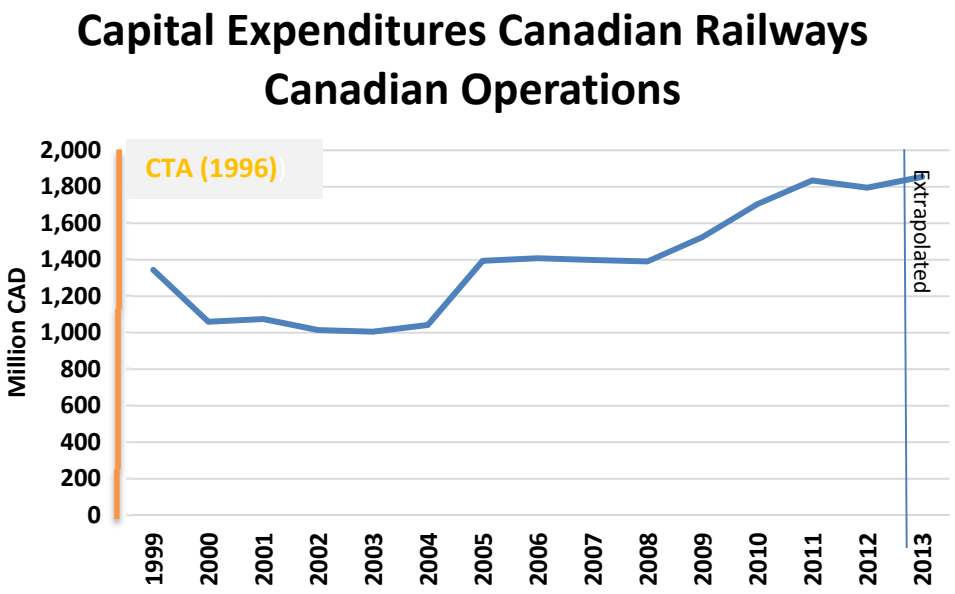
Source: Railway Association of Canada

3.5 Capital Expenditures on Canadian Operations

Figure 3-4 shows the Canadian railways' capital expenditures on their Canadian operations over the period since 1999. As the chart shows, the railways' improved financial viability since the late 1990s has enabled and encouraged high levels of investment in Canada's railway system.

Most noteworthy about Figure 3-4 is that capital expenditures in 2009-2011 grew on average by 10% per year despite the global financial crisis and severe recession of 2008-2009. Moreover, railways invested $1.8 billion in each of 2011 and 2012 in Canada, and slightly more in 2013. As one of the most capital intensive businesses, railways must have sufficient earnings be able to sustain the high levels of capital expenditures on plant and equipment required to replenish assets, serve normal growth in traffic, improve efficiency, promote innovation and increase system capacity. Reflecting these requirements, capital expenditures have average 15% of operating revenue since 1999.

Figure 3-4: Capital Expenditures Canadian Railway Operations



Source: Railway Association of Canada

4 Conclusion

This report outlines the evolution of railway economic regulation in Canada and highlights the industry's performance in the recent era when it has operated under a regulatory regime placing primary emphasis on commercial freedom. Unquestionably, Canada today benefits from one of the best freight rail systems in the world. As well, history shows there is a strong link between how economic regulation of railways is carried out and the industry's performance.

The evolution of railway economic regulation in Canada is outlined from its beginning in the mid-19th century to the present time, revealing there have been three distinct phases: pre-1967, 1967-2000, and post 2000.

Prior to enactment of the *National Transportation Act* in 1967 –a watershed event– railway economic regulation in Canada involved increasingly restrictive regulation, starting with the first *Railway Act* in 1851. As regulation grew more controlling, it became increasingly disconnected from the evolving commercial realities faced by the railways, resulting in inefficiencies and difficulty in being able to undertake needed capital investments.

From 1967 through 2000, a succession of reforms moved the regulatory regime increasingly towards relying primarily on market and commercial forces to guide the railway industry while also maintaining a number of shipper protections. For shippers, this has resulted in access to a world-class railway system while also benefitting from lower rates, and for railways, better financial and operational performance and enhanced ability to undertake capital investments.[22] As noted by the *Canada Transportation Act* Review Panel in 2001, "The succession of legislative and regulatory reforms begun in 1967 and accelerated in 1987 and 1996 is responsible for the resurgence of the Canadian railway industry and its renewed ability to provide efficient and effective services."[23] In the U.S., railway regulation has undergone a similar transformation, under the impetus of the *Staggers Act* of 1980, with equally, if not more, remarkable results.[24]

Finally, regulatory changes in more recent years, and especially since 2008, have amounted to the federal government stepping back from the direction initiated with the NTA in 1967. Several new measures, introduced in the form of Bill C-8 (2008), Bill C-52 (2013) and Bill C-30 (2014), have added new regulatory restrictions, expanded the Canadian Transportation Agency's authority, and expanded the reach of existing shipper remedies. As most of these have been in effect only since 2013, and there is uncertainty over the Bill C-30 provisions which face a sunset clause, it is likely too early to assess their possible impact.

We also show how the railway industry in Canada has performed in recent decades, when the object of regulation has mostly been to rely as far as possible on market and commercial forces to direct the industry. There is a demonstrable link between the approach to regulation and railway performance in terms of rates charged, efficiency, financial viability, and the ability and willingness to invest in the system. History shows both how damaging intrusive regulation can be, and how the commercial freedoms adopted in the latter decades of the 20th century resulted in greatly improved industry performance. In short, the market-based approach to economic regulation initiated with the *National Transportation Act* in 1967, and carried further in the NTA, 1987 and CTA in 1996, has been the catalyst to a resurgent and successful rail industry.

Endnotes

[1]Government of Canada, Canada Transportation Act *Review* at: http://www.tc.gc.ca/eng/ctareview2014/canada-transportation-act-review.html.
[2]Government of Canada, *Mandate*, at: http://www.tc.gc.ca/eng/ctareview2014/mandate.html.
[3]This section borrows from Canadian Transport Commission, *Competition and Regulation in the Railway Freight Industry*, Report No. 1982/09E (October 1982), Chapter 3, and W.G. Scott, *Canadian Railway Freight Pricing, Historical and Current Perspectives, 1836-1983*, Canadian Institute of Guided Ground Transport, Queen's University (1985), Chapters 3-5.
[4]This section borrows from Canadian Transport Commission, *Competition and Regulation in the Railway Freight Industry*, Report No. 1982/09E (October 1982), Chapter 3, and W.G. Scott, *Canadian Railway Freight Pricing, Historical and Current Perspectives, 1836-1983*, Canadian Institute of Guided Ground Transport, Queen's University (1985), Chapter 6.
[5] This section borrows from Canadian Transport Commission, *Competition and Regulation in the Railway Freight Industry*, Report No. 1982/09E (October 1982), Chapter 3, and W.G. Scott, *Canadian Railway Freight Pricing, Historical and Current Perspectives, 1836-1983*, Canadian Institute of Guided Ground Transport, Queen's University (1985), Chapter 8.
[6]J.W. Pickersgill, *Canada's National Transport Policy*, Transportation Law Journal, Volume 79 (1969).
[7]See Howard Darling, *The Politics of Freight Rates, The Railway Freight Rate Issue in Canada*, McClelland and Stewart Limited (1980).
[8]John Gratwick, *The Evolution of Canadian Transportation Policy*, research conducted for the *Canada Transportation Act* Review (March 2001).
[9] Ibid.
[10]This section is based on W.G. Scott, *Canadian Railway Freight Pricing, Historical and Current Perspectives, 1836-1983*, Canadian Institute of Guided Ground Transport, Queen's University (1985), Chapter 15, and Jim Riegle, *The Development of Western Grain Rates*, Proceedings of the 36th Annual Conference of the Canadian Transportation Research Forum (May 6 -9, 2001).
[11]Heaver, Trevor and W.G. Waters II, *Canadian Transport Policy*, Centre for Transportation Studies, University of British Columbia (June 2004).
[12] Western Transportation Advisory Council, *WESTAC Digest: Canada's New National Transportation Laws, 1987*, Volume 14, No. 3 (September 1988).
[13]Heaver, Trevor and W.G. Waters II, op. cit.
[14]*Canada Transportation Act* Review Panel, *Vision and Balance* (June 2001), p. 70.
[15]This paragraph borrows from Heaver, Trevor and W.G. Waters II, op. cit.
[16] The Conference Board of Canada, From Earth to Berth–Improving the Efficiency of Canada's Grain Supply Chain (February 2011), p. 13.
[17] *Canada Transportation Act* Review Panel, op. cit., p. 73.
[18] *Fair Rail for Grain Farmers Act*, S.C. 2014, c.8.
[19]See Andrew Shea and Joseph Schulman, *Lower Rates and Improved Performance, Regulatory Reform of Freight Railways*, op. cit., and Robert E. Gallamore, *Regulation and Innovation: Lessons from the American Railroad Industry*, op. cit.
[20]Andrew Shea and Joseph Schulman, ibid.
[21] See CN 2014 Quarterly Review for the Second Quarter at http://www.cn.ca/-/media/Files/Investors/Investor-Financial-Quarterly/Investor-Financial-Quarterly-2014/Q2/Q2-2014-US-GAAP-MDA-en.pdf, and CP 2014 Second

Quarter Earnings Release at http://www.cpr.ca/en/investors-site/Lists/FinancialReports/cp-earnings-release-q2-2014.pdf.

[22] See Andrew Shea and Joseph Schulman, *Lower Rates and Improved Performance, Regulatory Reform of Freight Railways*, op.cit.

[23] *Canada Transportation Act* Review Panel, *Vision and Balance*, op. cit., p. 46.

[24]See Robert E. Gallamore, *Regulation and Innovation: Lessons from the American Railroad Industry*, op. cit.