

# **A NEW TRAIN OF THOUGHT: THE DYNAMICS AND INHERENT POLITICS OF RAIL FREIGHT TRANSPORTATION IN CANADA**

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## **Introduction**

The purpose of this paper is to summarize the origins, status and results of key railway regulatory and service changes and to suggest future priorities. It includes a retrospective analysis of railway regulatory changes and sector performance in Canada over the past seven decades and of critical performance improvements. These improvements, coupled with and supported by government policy changes, enabled new rail sector growth and provided important context for another section of this paper – a forward-looking discussion on “what next?” - for the rail industry in Canada, from both a public and private sector perspective.

While progress has been made, the paper identifies a number of issues and challenges which may impact negatively on the rail sector’s future potential growth and hinder continued expansion of new trade opportunities and service improvements for shippers.

## **Retrospective Analysis**

Historically, rail transportation in Canada has been regulated in two ways: first, the prices and quality of service of transportation companies have been regulated by “price and service” legislation requiring, for example, the carriage of grain products at a specific rate; and second, by legislating rules for the resolution of shipper complaints and the regulation of pricing practices by a regulatory agency.

Regulatory activity from the 1880s to the 1940s was very extensive. It was based on the belief that transportation policy, along with trade policy, were key components of “national policy.” It was also based on the view that railways generally held a monopoly position in transportation. As a result, the Government of Canada not only provided direct and indirect financial incentives to promote railway construction and frequently to cover operating losses, but it also provided for powerful regulatory agencies and legislative restrictions on railway rate making and setting as well as service levels.

Rail regulation through those years was influenced by the emergence of regional problems and disparities in Canada. Examples of this are the legislating of rates for export grain movement in the Prairies (1897 – Crow’s Nest Pass Agreement) and the enactment of reduced rates for traffic moving within the three Maritime Provinces and to the rest of Canada (1927 – the *Maritime Freight Rates Act*).

Then, in the 1950s, four important developments eroded the foundation of existing railway rate regulation in Canada:

- 1) The expansion of the national highway network enabled trucks to carry traffic which had previously been captive to the railways and made short-haul, intercity trips by road more attractive than short-haul rail travel;
- 2) Coal and petroleum rail traffic was either significantly reduced or shifted to oil and gas pipelines;
- 3) Grain, petroleum and other bulk traffic moving from the Lakehead to the Atlantic Ocean was diverted to marine with the opening of the St. Lawrence Seaway; and
- 4) Long-haul passenger travel was accommodated increasingly by a growing airline industry to the detriment of transcontinental passenger services.

In the meantime, the regulation of rail rates was becoming even more stringent, stemming from the recommendations of the Turgeon Commission in 1951 with its focus on greater equalization of all freight rates across the country. By the late 1950's, it was evident that rail rate regulation was ineffective and inefficient and that a fundamental look should be taken at future direct and indirect railway price and service regulations.

Hence, another important milestone for rail regulation came in 1959, with the appointment of the MacPherson Royal Commission to study Canada's transportation system and recommend solutions. Two important developments came from this Commission. First, it clearly established that monopoly-based regulation was inappropriate in light of pervasive competition in the transportation sector. It recommended that a competitive approach be used to determine freight rates and that minimal regulation be the order of the day. Second, the Commission addressed the matter of policy. In a competitive environment, it was deemed unfair for railways to provide services or to charge rates which were unprofitable but required in the public interest. In response, the Commission recommended that transportation policy be separate from "national policy" and that the railways should in fact be compensated by public funds for performing services which a commercial environment they would not naturally encourage them to perform. This resulted in recommendations for explicit subsidies for uneconomic branch lines, uneconomic passenger services and grain transportation carriage.

The federal government adopted many but not all of the Commission's recommendations, primarily through the passage of the *National Transportation Act (NTA)* in 1967. While it did not address rail losses, only three elements of "indirect" regulation were preserved:

- 1) a minimum rate regulation to prevent predatory pricing, especially vis a vis trucking;
- 2) a maximum rate provision for shippers who are captive to rail; and
- 3) an appeals provision whereby acts/omissions of railways could be contested on the basis that they are prejudicial to the public interest

Looking back, evidence indicates that both railways and shippers generally benefitted from the deregulation and rate setting flexibility provided by the new *NTA*. Thanks to it and other contributing factors, the railways became more productive, more efficient and more profitable. Between 1967 and 1976, average freight revenue per tonne mile grew to an average annual rate of 3.9% (compared

with a 7.2% annual increase in the general price level). Overall efficiency of rail operations increased, given heavier and longer trains and increased output per hour of operation. During these times, competition either among railways, between railways and other modes, or in the market for particular commodities appeared to be the main factor in setting and controlling rates.

Interestingly, rails improved performance in those years was not at the expense of the trucking sector. The latter benefited from “rail rationalization” and made efficiency gains by picking up considerable traffic in markets where rail was no longer dominant. Shippers, as mentioned above, benefited from the diversity of railway transportation services and overall competition within and among modes.

The 1967 *NTA* with its National Transportation Policy statement (NTP) calling for more competition and less regulation was, and still is, only a statement of goals, of guidance, or at best one of intent. Much like preambles to the French and US federal constitutions, it is more often a hope – a vision - than a reality. It means little if there are no enabling clauses in the *NTA* or other acts to actually make it happen. For example, despite the 1967 goal of compensation for public duties, it took the government ten years – with the creation of VIA Rail Canada - to relieve the railways of the losses incurred from carrying passengers, and seventeen years to compensate them for the large grain transportation losses. Even then, through the direct rail payment to the railways to carry grain, it distorted the role and growth of the trucking sector. Rail passenger traffic is still subsidized and to the detriment of its main competitor, the motor coach industry. The current Act is still full of detailed air and rail regulations. In brief, if there is no political will to formulate and implement the right transportation policies, it does not matter what the NTP says.

### **Rail Regulatory Reform – 1975-2015**

The 1967 NTP statement and the Act itself have seen four major changes over the past four decades:

- 1) in the 70s and early 80s: the elimination of rail passenger and grain transportation losses for the railways;
- 2) in the mid-80s: the Freedom to Move regulatory reform;
- 3) in the mid-90s: the commercialization and privatization initiatives and further deregulation; and,
- 4) since 2004: the renewed focus on rail service obligations and on grain transportation issues.

From the 1970s and into the 1980s, successive governments took action, step by slow step, to change railway regulations and to compensate the railways for duties imposed by government. It was often two steps forward and one back. Further, different issues emerged in the mid-70s, especially in Western Canada, which questioned the “new” competitive environment given its dependence on resource

development, large bulk shipments, long distances, and so-called captive shippers. These “new” issues facing the rail sector included:

- 1) the development of a contentious, complicated railway costing formula and related concerns about estimating losses on branch line and passenger service abandonment applications;
- 2) complaints about long-haul vs. short-haul rate differences and rates and services for captive shippers;
- 3) inadequate rate regulations since few situations qualified for the minimum, maximum or appeals provisions and were too costly and cumbersome;
- 4) a general lack of information regarding how rates were determined and how railways judged market or modal competition;
- 5) the appropriateness of private ownership of railway roadbed was questioned and the possibility of public ownership was highlighted and studied; and,
- 6) concerns about uncompensated railway losses on the carriage of statutory grain products and the lack of incentives for structural changes and efficiency gains in grain transportation.

In the mid-1970s, consistent with the policy statement of the 1967 *NTA*, the government of the day finally reduced one of the financial burdens on the major railways through the transfer of all rail passenger services and the large deficits to VIA Rail (\$400 million in 1980-81).

The government also dealt with large grain transportation losses, not through changing or eliminating the Crow Rate, but by indirectly assisting the railways through the purchase by governments and the Canadian Wheat Board of 18,000 hopper cars, branch line subsidies (\$600 million from 1971-79) and a large multi-year \$800 million plus branch line rehabilitation program.

In the 1980s, as grain losses mounted and rail capacity for all traffic reached crisis proportions in Western Canada, Parliament finally repealed the Crow Rate and enacted the payment to the railways of the Crow Benefit of \$660 million per year. But with this came many conditions, the most prominent being that any future rail cost increases would be jointly shared by the federal government and farmers together and limits on rail rates and revenues.

Through the 1987 Freedom to Move legislation, revised and more targeted rail regulations emerged in the form of regulatory reform, not deregulation. Issues addressed under this important legislation included improved dispute resolution (final offer arbitration, no prima facie case); more intra-modal competition (increased inter-switching limits, terminal running rights, joint track usage, competitive line rates), revised minimum rates, no maximum rates but confidential contracts, and changes for branch lines (i.e., abandonment if uneconomic, reduced subsidies, sales to short lines).

Finally in the 1990s, real railway regulatory freedom was implemented through the privatization of CN, the roll-out of fewer and simplified rail regulations for grain and other shipments, a reduced oversight role for the Canadian

Transportation Agency, elimination of all freight rate subsidies and much simpler branch line abandonment procedures.

The first decade of the new millennium consisted mainly of countless studies and reports, with minimal real change at the legislative and regulatory level. That being said, the statutory review of the *Canada Transportation Act* in 2001 did address some key rail issues such as complaints that existing rail regulatory provisions at the time were not as strong as they should be. Among others, the 2001 recommendations called for a strengthened Canadian Transportation Agency and moving grain handling and transportation management to a more commercial basis. Prior to that, the Estey report (submitted in December 1998) on the efficiency of the grain transportation system and the resulting work undertaken by Arthur Kroeger (completed in 1999) dealt with major issues such as repealing the regulated rate system and, at a broader level, making ports and other major access points more competitive.

The federal government then launched another Rail Freight Service Review in 2008, following on long-standing shipper concerns and public calls to identify problems including ways to improve the efficiency, effectiveness and reliability of Canada's rail-based logistics system. The government then established the Rail Freight Service Review Panel to examine the existing rail service framework in Canada. Rail access, which had already been reviewed in 2001 by the *Canada Transportation Act* Review Panel, was once again one of the priority issues identified in the report. Shippers complained about inconsistent and inadequate rail service, while railway companies said that service interruptions could be attributed to issues arising from elsewhere in the supply chain and that railway companies alone could not be held responsible for unexpected incidents and service performance on their network and the supply chain.

Following the Rail Freight Service Review, the federal government appointed Jim Dinning to oversee another facilitation process between shippers and railways to develop a template for level of service agreements as well as a streamlined dispute resolution process. This facilitation process concluded, somewhat unsuccessfully shippers would argue, in 2011.

While 2001 until 2011 was primarily a time for long reviews, studies and consultations, a few rail service initiatives were implemented by the federal government such as improved final offer arbitration, changes to dispute resolution protocols and more focus on service obligations. However, these rather minor changes only foreshadowed the more significant changes that were to be delivered via the recent Bill C-52 (detailed more below).

### **Railway Performance**

While all of these legislative and regulatory changes have been shifting the foundation of the rail industry in Canada over the last forty years, the industry generally – and indeed the major railways themselves – have made impressive gains and become more and more successful. In fact, Canada's railways went

from being the worst (especially CN) to the best in North America through proactive management, mergers, many operating improvements, large capital investments, new labour rules, and immense changes in day-to-day operations.

A look at certain key indicators clearly illustrates this. Between 1999 and 2013, revenue per tonne kilometre for major railways (aggregated) has increased by over 40%.<sup>ii</sup> In tandem, annual employee wages have grown by almost 50% in the same period. Because the major railways' leadership teams have had an unwavering focus on optimized operations and constantly-decreasing expense expenditures, the overall health of the sector is improving and employees are generally being better paid and are more productive. See below for an overview of key indicators, courtesy of the Railway Association of Canada.

	1999	2002	2005	2008	2011	2013
Revenue/ tonne km (\$billion)	302.0	308.8	352.9	346.5	372.3	425.1
Kms of road operated	47,890	46,811	48,893	47,258	43,617	43,887
Locomotives	3,245	3,129	3,253	3,046	2,977	3,043
Freight cars (000s)	105	98	102	84	72	59
Annual wage per employee (\$)	59,092	64,229	71,994	74,790	83,163	88,153

On the safety side, while there have been a few watershed events – especially the Lac-Mégantic derailment in 2013 – the overall safety record of the rail industry in Canada has steadily improved, according to data from the Transportation Safety Board.<sup>iii</sup>

To be clear, the rewards of this success in the last two decades have not only accrued to the railways. There have also been benefits delivered to shippers through better, faster service (particularly given increasing traffic and congestion) and the availability of service and equipment at relatively lower prices. Other major gains have definitely gone to shareholders, industry executives and to governments. Plus it has enabled the companies to invest large sums in all key operations.

Still, while the overall picture is good, there have been some adverse consequences of this robust operating and financial performance such as reduction of service east of Montreal, for rural and small shippers, and a weakened framework for managing and supporting short-line railways.

Questions worth asking, related to the above, are how razor thin can railways' margins get without compromising other system elements? This is based on the

fact that operating ratios over the past four decades have gone from the high 90s and 80s to the low 60s, with CP currently at 62 and CN at 58. Is there a limit? Are there not consequences that have either started to emerge or will be exacerbated related to service, safety, capacity, equipment, employee relations and political relationships?

With the drive to more efficiency and improved bottom lines, the railways may be doing better but they have attracted critics certainly in the West including Ministers and key MPs from all three parties. The railways seem to have limited institutional memory about the “politics” of freight rates. The railways have not paid sufficient attention to many shippers (including captive shippers), service obligations, communications, and even politicians, especially in Western Canada and with the forestry products and mining sector.

As former Liberal Cabinet Minister Judy LaMarsh said: “If you scratch a Canadian’s back, you will find a railway track.” This still rings true today in many communities and for many interest groups and should not be forgotten by the railways. They also seem to have forgotten that, for decades, if Western farmers had a problem, it was “God damn the CPR.” Such was the case when grain farmers pushed Parliamentarians to enact Bill C-30 (see details below) as they blamed the railways, not the weather and record-breaking crop volumes for the slow movement of grain. Grain companies and others also had a role. While there are many small farmers that rely on good rail service, many of the Western grain companies that are the real shippers are now major corporations, in some cases with larger financial and operational footprints than the railways themselves. Volume and service needs are increasing but so is the complexity of the railway-shipper dynamic and the overall supply chain where all participants count, not just the railways. This is especially important as the federal government pursues more and more free trade agreements with major foreign markets (e.g., Japan, South Korea, India and the EU) that will eventually result in more traffic on Canadian rails and the need for more capacity and efficiencies at the major gateways.

An additional consideration is the upcoming 2015 federal election, with the Conservatives and the Liberals engaged in an increasingly close race. The Conservatives will continue to rely on rural voters, many of whom have some connection to rail and agriculture. How does the government keep those players happy (and supportive) while also making the necessary changes to the overall system that will position it for continued success over the next few decades? These rural constituents, many of them on the Prairies, have strong allies such as the current Agriculture Minister and all parties pay attention to them, especially in the midst of an important election year.

### **Current Problems and Issues**

With more regulatory freedoms, there are more obligations and railways must determine how to meet them. Railways are common carriers and have to meet traffic service offered. These obligations apply to all railways and for all shippers. Obligations also include service with joint shared obligations and penalties and

ongoing improvements to safety regimes. There is a trade-off between efficiency and profitability versus service needs for all.

Some of the major issues still facing the industry include:

### 1) **Services**

As referred to above, the federal government, from 2001 on, undertook several reviews for various reasons including mounting concerns about railway service levels, the focus on the main line, not enough on door-to-door service, smaller shippers and the “first and last mile”, and the lack of information exchange between railways and shippers. Shippers had limited legal and financial recourse to railway service failures, left-over issues from the regulatory changes in the 1990s. Hence, the government initiated different rail service discussions and reviews for more than a decade and then finally enacted new legislation in 2013.

Bill C-52, *The Fair Rail Freight Service Act*, is aimed at restoring the balance between railway obligations and shippers’ rights. Prior to this Act, the Rail Freight Service Review Panel made this recommendation, among others; "Railways should enter into good faith negotiations to establish service agreements upon request by stakeholders who have an operational or commercial relationship with them, including the establishment of ‘boiler plate’ agreements with groups, such as small shippers." The Panel also said "Disputes related to the initial establishment or renewal of service agreements, i.e. failure to reach agreement on the terms and conditions of service agreements or renewals, should be eligible for dispute resolution."

In its response to the Review Panel, the federal government made a commitment to implement these recommendations. Under Bill C-52’s new provisions, rail companies in Canada are required to offer a service agreement to those customers shipping goods by rail, if the shipper requests one. In the event that rail companies and shippers cannot reach an agreement through commercial negotiations, shippers can use the new arbitration process enabled through this 2013 legislation to establish the terms of service to which they are entitled.

Bill C-52 has been successful so far but needs simplification and consistent arbitration. There is more the federal government could and should do to make the recent C-52 legislation more effective: simplifying the regulations and associated paper work, streamlining the complaints process and, more importantly, replacing the current patchwork approach to arbitration with a coherent framework to foster consistent decision-making. Again, the overall supply chain and the role of all players, not just the railways must be taken into account when considering the approach to arbitration.

### 2) **Grain Transportation**

There have been many changes over the last three decades to grain transportation as mentioned above. Overall, these have worked well. That said, in 2013-2014, conditions including a huge crop, very cold weather, lack of service, farmers’ income losses, and lack of industry co-ordination and co-operative action caused a major disruption in the system. With no Grain Transportation Administrator



nor the Wheat Board to inform and level the shipments, industry on both sides failed to act.

In March 2014, the government announced an Order-in-Council taking direct aim at CN & CP and ordered the two railways to move a minimum of 500,000 tonnes of grain each week (double what they had been moving) or penalties of up to \$100,000 a day. Following this directive, the two Ministers put forward new regulations in Bill C-30, *The Fair Rail for Grain Farmers Act*.

This Bill, enacted in May 2014, included a number of amendments including authority for the government, through these two Ministers, to set grain transport volume requirements and extended "inter-switching" distances in Saskatchewan, Alberta & Manitoba to 160km for all commodities, in order to "increase competition among railways and give shippers access to alternative rail services." Under previous rules, shippers could only sign with a railway operating within 30 kilometers of a grain elevator, meaning most had only one service provider option.

There are also new specificity requirements for level of detail included in the Service Level Agreements, measures (including financial penalties) to respond to non-performance by the railways in meeting their contractual obligations to their customers.

So far, C-30 has had mixed success and reviews. As one example, to meet the minimum grain volume requirements and to ensure that the huge backlog of grain is reduced as fast as possible, the railways and some grain companies have naturally focused their shipments on elevators and routes that have the fastest turnaround time to the detriment of other slower shipments such as those to the US. Plus with all the focus on grain shipments there are concerns about rail service for other shipments.

### 3) **Safety**

Overall, the railways currently have a very good record on safety. According to the Transportation Safety Board, railway occurrences and casualties involving CN trains between 2004-2013 decreased by 192 (a decrease of over 10% each year) and for CP in the same period, by 61 (an average of 6% each year).<sup>iv</sup>

Yet with the fast growth in rail tank cars used to move oil since 2009, there have been mounting concerns. In 2011, CN moved approximately 5,000 rail cars of crude oil, while CP moved 13,000 rail cars. In 2012, that number increased six-fold for CN to 30,000 and four fold for CP to 53,500.<sup>v</sup> The level of transportation of crude oil by rail in Canada was almost 200,000 barrels per day by the end of 2013.<sup>vi</sup>

The disastrous rail accident at Lac-Mégantic in July 2013 demonstrated a serious lack of up-to-date oversight, regulations, standards, enforcement, information and problems with new large oil shipments not only for the short-line involved but indeed, throughout the rail industry in North America. Since that accident, there have been important changes in rail safety. Most fall into four categories:

- 1) Improved operations such as the requirements for crew members and reduced speeds for dangerous goods trains, better classification and labelling of crude oil, emergency response assistance plans, and minimum hours of rest.
- 2) Better equipment – new standards for DOT-111 tank cars, the removal from service of the least crash resistant ones by May 1, 2017.
- 3) New regulations concerning safety management systems which will strengthen federal oversight, as well as new reporting requirements for railways travelling through municipalities with dangerous goods (more and faster info sharing with municipalities, first responders, better data gathering and reporting).
- 4) A new bill in February 2015 that introduces new liability and insurance measures for the transportation of dangerous goods, especially oil. The new measures significantly strengthen the liability and compensation regime for federally-regulated railways by introducing new liability requirements of up to \$1 billion. The bill also establishes a new supplementary liability fund. This fund will be backed by shippers of crude oil, who will be required to levy \$1.65 per metric ton of crude oil shipped. The total funds collected will be capped at \$250 million, which seems low considering that Lac Mégantic's damages are well over \$400 million.

Transport Canada also continues to work closely with US railways and its Transportation of Dangerous Goods' counterparts to identify and coordinate further safety improvements in support of the integrated North American railway system.

#### **4) Review of the *Canada Transportation Act***

A comprehensive review of the *CTA* is currently underway until the end of 2015 and is an important opportunity for making real future changes. It has a broad multi-modal mandate and has been undertaking extensive consultations.

However, given its Terms of Reference to give priority to rail freight legislation, there is a risk of having too much focus on the same old rail issues and begs the question are there not more important issues to make transport more of a growth engine with a renewed effort to increase transport productivity in other sectors such as air, urban transit, and gateways management?

Any objective assessment will show that the rail sector, overall, has performed better than the other transport modes over the past two decades in terms of improvements in productivity, rates, service and safety. One also wonders why, given that the focus for the Review is on rail, there is no mention in the Review's mandate of the role of pipelines and their capacity to move goods; it is and will be a major competitor.

#### **The Look-Ahead**

Canada has an impressive record in transportation policy changes few would have imagined 25 years ago: deregulation of all modes, commercialization and privatization of airports, ports, air navigation services, Air Canada, and CN plus

major subsidy changes and large scale infrastructure investments. These have allowed the transport sector to be an engine for growth; its productivity has increased much more than the overall economy's. The next ten to twenty years should be just as visionary and not solely consist of a few micro changes, muddling through. The focus ought to be on key import-export gateways and on the future of the transportation and logistics needs of the top ten cities in Canada within a comprehensive long-term strategy. In addition, other opportunities for change exist in the air sector, in urban transit, highway funding and more commercialization and privatization of government transport entities.

Given decades of regulatory changes and the privatization of CN, the rail sector in Canada has done very well over the last four decades. There have been significant gains in operating efficiency, revenues, capital investments and overall traffic while at the same time both safety and environmental stewardship have improved. The railways continue to reduce their fuel costs and are more environmentally-friendly and effective.

Rail safety measures including those recently put in place by the Minister of Transport appear to be effective and should be given time to show results, particularly in respect of oversight, enforcement, access to information, new equipment and the new liability legislation.

It is important to consider recent rail service issues in the context of an overall supply chain - that there are many players not just the railways that move and handle traffic. All government decisions to address these issues must be made bearing in mind any resulting impacts or delays on other parts of the supply chain. The interaction among different players throughout the supply chain needs to be taken into account.

The recent backlog facing the North American rail sector for grain has to be understood as a single unique occurrence resulting from a record crop and extremely cold transportation conditions. The solution to this situation is not to make arbitrary changes, as Bill C-30 does, to a regulatory framework that generally works well. A look at some of the latest calls from members of the Opposition in the House of Commons hearkens back to rail industry reality and the over-regulation of the 1950s and 60s. It did not work then – why would it work now?

Rather, mechanisms must be found that ensure effective communication and collaboration among all the players – railways, producers, grain handling companies, terminal operators and port authorities. In this regard, an institutional gap has developed since the abolition of the Canadian Wheat Board and the elimination of other functions such as the Grain Transportation Commission and the Grain Administrator, which provided collective information for, oversight of, and logistics support of the complex grain transportation system. It would be more effective if the *Fair Rail for Grain Farmers Act* was not renewed, its provisions allowed to expire and instead, but get the industry itself to deal with efficient grain shipment through joint new institutional initiatives.

As per the then-Bill C-52 provisions, there is a need to focus on service for large and small shippers with balanced obligations and financial and legal recourses for both the railways and for the shippers. However, there should be an objective to resist new detailed regulations and encourage commercial parties to address and resolve issues amongst themselves. Railways and most rail shippers are large and have done well. Canada does not need more railway regulation but commercial collaboration and dispute resolution among all parties. We as a nation now have to move on - to act on other freight transportation issues such as gateways, bottlenecks and congestion in our major cities and export-import points.

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<sup>i</sup> The authors are Ottawa-based consultants working on transportation and infrastructure issues at [Global Public Affairs](#).

<sup>ii</sup> As per data courtesy of the Railway Association of Canada's Rail Trends Database.

<sup>iii</sup> <http://www.tsb.gc.ca/eng/stats/rail/ex-rev/2014/20141027.asp>

<sup>iv</sup> <http://www.tsb.gc.ca/eng/stats/rail/ex-rev/2014/20141027.asp>

<sup>v</sup> <http://www.pembina.org/blog/732>

<sup>vi</sup> <http://www.capp.ca/getdoc.aspx?DocId=242427>