1. Introduction

This paper summarizes an extensive and detailed report, prepared for the Railway Association of Canada, with the purpose to characterize and compare the economic regulation of freight rail transportation in Canada and the U.S. More specifically, the purpose was to:

- Describe the similarities and differences in the respective Statements of National Transportation Policy that underpin the regulation;
- Describe the similarities and differences in the specific provisions relating to freight rail economic regulation in the two countries; and
- Determine whether these comparisons suggest possible useful opportunities for change in how freight rail services are regulated in Canada.

To our knowledge, no such extensive and also detailed comparative analysis has been published before, at least from a Canadian perspective, and certainly not in recent years. The full report is fully documented, including all necessary references to the relevant statutes, regulations and case law. However, including these references here would be impractical and consequently we have not done so.
The matters covered here, and in the full report, include: the scope of the regulation; the National Transportation Policy statement; market entry and exit; level of services; pricing of services; competitive access; mediation and arbitration; cost of capital and revenue adequacy; and our conclusions.

2. **Scope of Rail Economic Regulation**

Canada and the U.S. have both enacted statements of National Transportation Policy which provide basic objectives and principles applicable to their respective rail economic regulation. In addition, the main objects of the regulation in the two countries are generally similar in that both regulate entry and exit, level of services, pricing of services, competitive access, mediation and arbitration, have a regulatory cost of capital, and permit confidential contracts.

At the same time there are significant, and sometimes fundamental, differences in how certain matters are regulated (pricing of services, confidential contracts, competitive access and cost of capital), and in the fact that certain matters are principal objects of regulation in Canada but not in the U.S. (the revenues that railways in Canada may earn from transporting western grain) and vice versa (the provisions in the U.S. pertaining to railway revenue adequacy and the regulator’s authority to exempt rail carrier activity from regulation).

The table below highlights the main matters covered by rail economic regulation in both countries.

**Main Matters Covered by Rail Economic Regulation in Canada and the U.S.**

<table>
<thead>
<tr>
<th>Object of Regulation</th>
<th>Covered by Regulation</th>
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<tbody>
<tr>
<td>National Transportation Policy Statement</td>
<td>Yes</td>
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<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
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<tbody>
<tr>
<td>Market Entry and Exit</td>
<td></td>
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</tr>
<tr>
<td>Level of Services</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pricing of Services</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Confidential Contracts</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Competitive Access</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mediation and Arbitration</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cost of Capital</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Revenues Earned from Transporting Grain</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Railway Revenue Adequacy</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Authority to Exempt Activity from Regulation</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
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* Canada and the U.S. both have provisions relating to railway mergers and acquisitions, although these are not discussed here or in the full report.

### 3. National Transportation Policy Statements

Canada and the U.S. have both enacted formal statements of National Transportation Policy that are intended to guide the regulation of transportation under federal jurisdiction. The statements are similar in their overall intent that competition and market forces should be relied on as the primary guide determining the provision of rail services and in their encouragement of deregulation.

Canada’s statement, found in section 5 of the *Canada Transportation Act* (CTA) was first introduced in 1967. It applies to transportation in general but subsumes railways. Since 1967, there have been several variants but the concepts that Canada is best served by an economically efficient transportation system, and that the best way to achieve this is to rely as much as possible on market forces and competition, have remained constant.
The U.S. policy statement, found in section 10101 of Title 49 of the United States Code (49 U.S.C.), is specific to railways. It is also more direct and emphatic in its emphasis on deregulation. The policy is to allow to the maximum extent possible competition and demand for services to establish reasonable rates, and to minimize the need for regulation over the rail system. In Canada, it is instead stated that the objectives of policy are most likely to be achieved when competition and market forces are the prime agents directing the industry.

In the U.S., the policy statement is also explicit about ensuring rail carriers earn adequate revenues in order “to promote a safe and efficient rail transportation system.” Canada’s policy declaration includes no statement concerning railway revenue adequacy.

In both countries, the role of competition and market forces is not treated as absolute. Canada’s policy statement, however, is again far more encompassing about when regulation and intervention are to be used, while the US statement is limited and focused on circumstances where the question of an imbalance of market power arises between railways and shippers.

4. Market Entry and Exit

The most salient point to be made with respect to market entry is that the regulatory barriers are low in both Canada and the U.S. Entry is relatively easy reflecting both countries’ reliance on competition and market forces as the prime agent to direct the industry.

For construction or operation in Canada today, a precondition is a certificate of fitness from the Canadian Transportation Agency (the Agency) and, since January 2015, also a railway operating certificate from the Minister of Transport aimed at ensuring safe operation. To obtain a certificate of fitness, an applicant needs to prove that there is adequate liability insurance coverage according to the Agency’s regulations. If that is the case, the Agency must grant the certificate of fitness.

With respect to construction of a railway line, the applicant must obtain a certificate of fitness and the proposed construction must be approved by the Agency, based on it considering the location of the
line to be reasonable. In addition, regulations made under the Canadian Environmental Assessment Act, 2012, designate certain types of railway projects as being subject to an environmental assessment.

In the U.S., the requirement for construction or operation is a certificate from the Surface Transportation Board (the Board), which must be granted unless the Board finds the proposed activities to be inconsistent with public convenience and necessity. Under the Board’s statutory exemption authority, authorization for the activities may also be obtained by applying for an exemption from the need for the required certificate.

With respect to discontinuance of railway lines, Canadian regulations were greatly liberalized under the CTA, although the process is geared to retain, when possible, operation of the line in question through transfer to a private party, government or urban transit authority. In the U.S., the carrier must show that public convenience and necessity require or permit the abandonment or discontinuance.

5. **Level of Services**

With their basis in the railways' historic common carrier obligations, the Canadian and U.S. statutory rail level of service (LOS) obligations have much in common.

In both countries, these obligations are not considered absolute but are judged according to a long accepted standard of “reasonableness” taking into account all the circumstances around the provision of service in a given situation. In Canada, this stems from the Supreme Court decision in the Patchett case (1959), which is still relied upon. Both countries also have statutory mechanisms for resolving rail LOS disputes through the lodging of a complaint by any interested person. And in both countries the regulator, acting in a quasi-judicial capacity, has very wide powers to order remedies.

In Canada, there has been no change in the basic railway LOS obligations as a result of the move towards rail deregulation in recent decades. In contrast, the U.S. LOS provisions have been greatly narrowed in terms of the scope of their application. In the U.S., a
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A shipper who chooses to enter into a confidential contract loses his various statutory protections under 49 U.S.C., including those relating to LOS. In addition, the Board has used its authority to exempt many types of shipments from the protections normally afforded by the LOS provisions. (Under U.S. legislation, the Board can exempt traffic from regulation if it determines that the market for the traffic is sufficiently competitive.)

Also recently, new provisions have been added in Canada that relate to the LOS obligations. Since 2013, a shipper has the right to request that a railway company make it an offer to enter into a confidential contract respecting the manner in which the railway company is to fulfil its LOS obligations, and a recourse in the form of an arbitration proceeding if a shipper is unable to negotiate such a contract. In 2014, amendments to the CTA also imposed specific capacity requirements on Canadian National and Canadian Pacific in the form of minimum shipment levels with respect to western grain movements.

6. Pricing of Services

Railway pricing today in both Canada and the U.S. is largely market determined. While subject to certain statutory provisions, the regulations provide far more commercial freedom than was the case before the National Transportation Act of 1967 in Canada and the Staggers Act of 1980 in the U.S. Still, there are fundamental differences, most profoundly in how rates in general are assured to be reasonable. In addition, in the U.S., much traffic is exempted from rate regulation altogether, again under the Board’s exemption authority.

Regulatory mechanisms in Canada and the U.S. differ fundamentally in how they attempt to ensure that rates are reasonable and shippers protected from potential abuse of railway market power. In Canada, there are no longer any regulated rates per se, including maximums or minimums (except for regulated interswitching and Competitive Line Rates). Instead there are a number of recourses, most important of which for limiting rates in general is final offer arbitration (FOA). Its use is open to all shippers that are not party to a confidential contract and is not conditioned on the absence of competition. The mechanism
for limiting rates in the U.S. is totally different. There is a statutory threshold above which rates may be held to be unreasonable (180% of variable costs). This, however, can only be considered if the Board first determines that the rail carrier has market dominance.

In 2008, the CTA was amended to also provide shippers with a remedy aimed at protecting them against unreasonable ancillary charges or associated terms and conditions for the movement of traffic.

One of the most significant changes in both countries was to introduce in the 1980s permission for confidential contracts covering the rates and conditions for rail services. Legally, however, the treatment is different. In the U.S., where there is a confidential contract, the rail carrier simply ceases to be a common carrier with respect to the contracted services. In Canada, the railway company remains subject to the statutory LOS obligations, although the terms of the contract are binding on the Agency in the event of a LOS complaint and investigation.

As already noted, the CTA was amended in 2013 to oblige railway companies to enter into a confidential contract with any shipper who requests one, and to establish an arbitration process to settle disputes regarding a railway’s offer.

Grain transportation in Canada has historically had special regulatory treatment. In 2000, the annual Maximum Grain Revenue Entitlement (or “revenue cap”) replaced maximum freight rates regulation for western grain. Nothing analogous exists in the U.S. where grain is, for the most part, treated like any other commodity. The revenue cap is strictly cost based. It enables the railways to offer some rate and service packages that promote efficiencies but the possible array is limited by the revenue constraint. Grain producers are by virtue of the cap intended to be protected from excessive rail freight prices, but there is no definition of what constitutes such prices. The program has also had other implications, e.g. it has lent itself to disputes, can act as an investment disincentive, and does not account for cost differences in how grain may be shipped (such as bulk versus containers).
7. Competitive Access

Both the Canadian and U.S. statutes have “competitive access” provisions, meant to provide shippers with competitive alternatives that they might not otherwise be able to access. These include:

- joint rates (Canada) and through routes (U.S.);
- interswitching (Canada), and terminal trackage rights and reciprocal switching (U.S.);
- Competitive Line Rates or CLR (Canada); and
- running rights (Canada)

Joint rates and through routes guarantee that shippers will be able to effectively move traffic over a continuous route operated by two or more carriers.

Interswitching guarantees that a shipper with direct access to only one railway at the origin or destination of a move can have the shipment transferred to another carrier at a rate prescribed by regulation if the origin or destination is within a certain radius of an interchange point. Interswitching is available unconditionally to all shippers having direct access to one railway. The prescribed rate is solely cost-based. It takes no account of the revenue adequacy of the terminal carrier, of what might otherwise have been earned by the terminal carrier, nor of the quality or competitiveness of the terminal carrier’s service.

In 1987, the interswitching radius was extended from its original 4 miles to 30 km. In 2014, the CTA was amended to provide the Agency with authority to extend the radius to 160 km in the Prairie Provinces, which it has done.

In the U.S., the Board can require terminal facilities owned by one carrier to be used by another carrier (terminal trackage rights), or the railroad owning the terminal facilities to transport the traffic on behalf of the other carrier (reciprocal switching), if it finds this to be practicable and in the public interest. Since 1985, the meaning of “public interest” in this context has been greatly narrowed to mean whether the incumbent carrier has acted in an anticompetitive manner.
In Canada, CLRs allow a shipper served directly by only one railway, and located beyond the regulated interswitching distance, to ask the Agency to set a rate for transporting the goods over the originating railway to an interchange for transfer to a connecting carrier. The CLR is based on the interswitching rate plus, for the additional distance, the system average revenue per tonne-km for moving similar traffic over similar distances.

In Canada, if a railway company wishes to run over the lines of another railway, and the two cannot reach an agreement, the “guest” railway company can ask the Agency to approve such rights and set the terms. However, in decisions from 2001 and 2002, the Agency determined that it does not have authority to grant running rights for the purpose of soliciting as well as carrying the traffic of shippers served by a “host” railway, or that it should grant such running rights absent evidence of actual market abuse or failure by the “host” railway.

8. Mediation and Arbitration

Canadian and U.S. legislation both provide dispute resolution through mediation or arbitration. There are, however, some significant differences.

In Canada, mediation is strictly voluntary and requires the agreement of both sides. The Agency cannot compel mediation. Mediation can take place either before or after a formal complaint or application is filed. Similar to Canada, parties in the U.S. can voluntarily request mediation, including those involved in a formal proceeding before the Board. However, unlike Canada, the Board can compel parties in a formal proceeding to mediate. Furthermore, the Board requires the parties to a rate dispute to engage in mediation at the start of the case.

In Canada, the Agency may, if all parties request it, arbitrate a dispute over any rail matter covered by Part III (Railway Transportation) or Part IV (Arbitrations) of the CTA, or over any rate or charge for the movement of goods by rail or provision of incidental services. Parties in the U.S. can also voluntarily decide to use arbitration procedures provided by the Board. However, unlike in the U.S., a shipper in Canada can unilaterally take a railway to arbitration for some
disputes, i.e. under FOA or under the new recourse for shippers who are unable to reach agreement on a confidential contract.

9. Cost of Capital and Revenue Adequacy

The cost of capital plays a role in rail regulation in both Canada and the U.S. Typically, regulatory agencies estimate the cost of capital by calculating some variant of the weighted average cost of capital (WACC).

In Canada, the cost of capital is used principally as a factor in determining the annual revenue cap for transportation of western grain and in determining interswitching rates. Cost of capital rates are also determined on a case-by-case basis as required for other proceedings, such as LOS complaints. In the U.S., the cost of capital is used as the benchmark in assessing railway revenue adequacy, and also in maximum rate level and rail line abandonment proceedings, and in setting compensation for use of another carrier’s lines. In Canada, the only provision that might be regarded as having a bearing on revenue adequacy is the section of the CTA which requires that: “A rate or condition of service established by the Agency…must be commercially fair and reasonable to all parties.”

The basic elements for estimating the cost of capital are similar in Canada and the U.S. (capital structure, cost of debt and cost of equity), but due to the different methodologies used, the resulting estimates differ widely, for example 11.32% on an after-tax basis for U.S. railways in 2013, versus Agency estimates in the neighborhood of 6%-7% on a pre-tax basis for CN and CP. In particular, the allowable cost of equity has differed sharply between Canada and the U.S., with the Canadian methodology tending to yield significantly lower estimates, and estimates that have been eroding over time while remaining stable in the U.S.

10. Summary of Canadian and U.S. Freight Rail Economic Regulation

As highlighted above, the principal objects of rail economic regulation in Canada and the U.S. are mostly similar, but there are
also significant, and sometimes fundamental, differences in how certain matters are regulated. Overall, however, and consistent with the tenor of the respective National Transportation Policy statements, government in Canada clearly intervenes far more extensively in the rail sector than does government in the U.S.

Specifically:

- While the respective LOS provisions have many similarities, their scope of application has been sharply narrowed in the U.S. mainly because of the different treatment of confidential contracts and the statutory authority of the Board to exempt traffic from regulation.

- The manner in which rates are regulated differs fundamentally. U.S. legislation provides a specific ceiling (180% of variable costs) for a rate to even be considered unreasonable while Canada instead has FOA. Moreover, in the U.S., a great deal of traffic is exempted from rate regulation by virtue of the Board’s exemption authority, or because the Board must first make a finding of market dominance by the rail carrier before it can review the rate in question. In Canada, the situation is the reverse in that FOA is not conditioned on the absence of competition or other market factors; it is available unconditionally to any shipper (who is not party to a confidential contract) that chooses to make use of it.

- Confidential contracts are also treated very differently. In the U.S., the rail carrier simply ceases to be a common carrier with respect to the contracted services. In Canada, the rail carrier remains subject to the statutory LOS obligations, although the terms of the contract are binding on the Agency in the event of a complaint and investigation. In addition, the CTA now obliges a railway company to enter into a confidential contract with any shipper that requests one, and provides an arbitration process to settle disputes regarding the railway’s offer.

- Canadian and U.S. legislation both contain competitive access provisions. Canada’s, however, are more numerous. In one key case, Canadian interswitching, this is available unconditionally to
any shipper having direct access to one railway, whereas the closest corresponding U.S. provisions require the Board to first determine whether the local carrier has acted in an anticompetitive manner. Additionally, the prescribed interswitching distance limit has been extended (for the time being) from 30km to 160km in the Prairie Provinces.

- In Canada, a railway company that wishes to run over the lines of another railway can ask the Agency to be granted such running rights and to set the terms, although the Agency in this case has set clear pre-conditions and limits on the use of this recourse. Provisions similar to Canadian running rights do not exist in the U.S.

- Both Canada and the U.S. provide mechanisms for resolving rail-related disputes voluntarily through mediation or arbitration. However, unlike in the U.S., a shipper in Canada can unilaterally try to settle some disputes through arbitration, i.e. under FOA or under the new recourse for shippers who are not able to reach agreement on a confidential contract.

- In Canada, grain transportation has historically been subject to special regulatory treatment and this is still the case through the grain revenue cap. In the U.S. grain is, for the most part, treated as any other commodity.

- Lastly, U.S. policy has an explicit rail revenue adequacy objective. In the U.S., the cost of capital is used as the benchmark in assessing revenue adequacy. In Canada, there is no stated revenue adequacy policy objective.

Not only does government in Canada intervene far more extensively in the rail sector than government in the U.S., but as recently noted by the Supreme Court of Canada there has also been a “move towards partial re-regulation in the rail sector after two decades of deregulation.” The Fair Rail for Grain Farmers Act is the latest example of this trend.
11. Opportunities for Reform in Canada

The review and comparison of Canadian and U.S. freight rail economic regulation, summarized in this paper, suggests the following opportunities for change in the Canadian regulatory regime:

- First, the current CTA Review presents an opportunity to revisit Canada’s statement of National Transportation Policy. Although this policy statement seeks – appropriately – to balance the requirements for economic efficiency and reliance on market competition with public interest considerations, it does so in such a way that the statement is too vague to be of practical value. Under section 53 of the CTA, giving consideration to the policy statement and possibly recommending changes to it are an explicit part of the CTA Review process. Admittedly, it was reviewed by the previous CTA Review in 2000-2001, and as a result streamlined and updated in 2007. Nevertheless, the statement, even in its current, relatively short, version, is too general. While the CTA covers mostly air and rail transportation (and in the latter case the focus is overwhelmingly on freight), the policy statement purports to cover the whole “national transportation system.” This contrasts sharply not only with the U.S.’ rail-specific statement, but also with the equally focused Purpose Clause, at section 4, of the Canada Marine Act which limits itself to marine transportation. Furthermore, besides being general, the CTA statement espouses what are often competing considerations. Hence it provides very little direction to the Agency (or to anyone else). It should also be mentioned that the policy statement, in its current form, no longer makes reference to reliance on user charging, a principle that had been embedded in all the previous versions until 2007.5

- Second, an important question is whether users of rail services should have recourse to regulatory remedies in markets for services where sufficient competition exists? As noted above, the ability of shippers in Canada to access key provisions – including LOS complaints, FOA, interswitching, CLR and the right to a
confidential contract – is not conditioned on the absence of competition or abuse of market power by railways. Yet it is only when one party is abusing monopoly power that such regulation should normally be called for. The various regulatory remedies should be re-examined in light of whether they should be accessible irrespective of market conditions.

- Third, interswitching is a key provision in Canada that has recently been changed radically. Both the specific changes, including the extension of the distance limit to 160 km in the Prairie Provinces, and the process by which this has been done, are questionable. The extension to 160km increases significantly the rail traffic base subject to fixed regulated rates, a large step back towards a regulatory approach that Canada abandoned over thirty years ago. Furthermore, no analysis of: (i) the changes; (ii) the conditions requiring them; (iii) how the changes fit into the larger picture of available shipper remedies; or (iv) alternative options was provided. In addition, the changes were implemented by regulatory change rather than legislative amendment, something the Agency itself commented upon in 2004, stating:

  The Agency considers that extending the interswitching distance limits from 30 to 150 kilometres would constitute a policy amendment that would have substantial repercussions in the rail transportation industry and the magnitude of these repercussions would be so significant that such an amendment cannot be contemplated by way of a regulatory change.\(^7\)

These new interswitching provisions should be allowed to expire on August 1, 2016, as per the sunset clause under which they have been put into effect.

- Finally, there is the unique treatment accorded to rail transportation of western grain. The CTA Review should consider whether grain should continue to have special treatment. There is no well-established economic reason for continuing to treat grain differently, and as noted above, there are questions regarding the justification and effect of the revenue cap. Furthermore, as noted by the CTA Review in 2001, the
legislation that introduced the cap on grain rates in 1995, and which was replaced by the revenue cap in 2000, contemplated the eventual doing away with any special treatment for grain rates.\textsuperscript{8}

\begin{itemize}
\item \textsuperscript{1} CPCS, \textit{Comparison of Canadian and United States Rail Economic Regulations}, prepared for the Railway Association of Canada (January 20, 2015). The present paper and the full report on which it is based deal only with the regulation of freight rail transportation. Regulation specific to passenger rail is not discussed.
\item \textsuperscript{3} S.C. 2014, c. 8.
\item \textsuperscript{4} S.C. 1998, c. 10.
\item \textsuperscript{5} Beginning with the first policy statement in 1967, the acceptance of reliance on user charging as a principle was expressed in terms similar to the following: "each carrier or mode of transportation, as far as practicable, bears a fair proportion of the real costs of the resources, facilities and services provided to that carrier or mode of transportation at public expense." See, e.g., \textit{Canada Transportation Act Review, Vision and Balance} (June 2001), p. 308.
\item \textsuperscript{6} Although these regulatory changes were made possible by changes to the CTA introduced by the \textit{Fair Rail for Grain Farmers Act}.
\item \textsuperscript{7} Canadian Transportation Agency, \textit{Regulatory Impact Analysis Statement} (September 23, 2004).
\item \textsuperscript{8} \textit{Canada Transportation Act Review, Vision and Balance} (June 2001), p. 73.
\end{itemize}