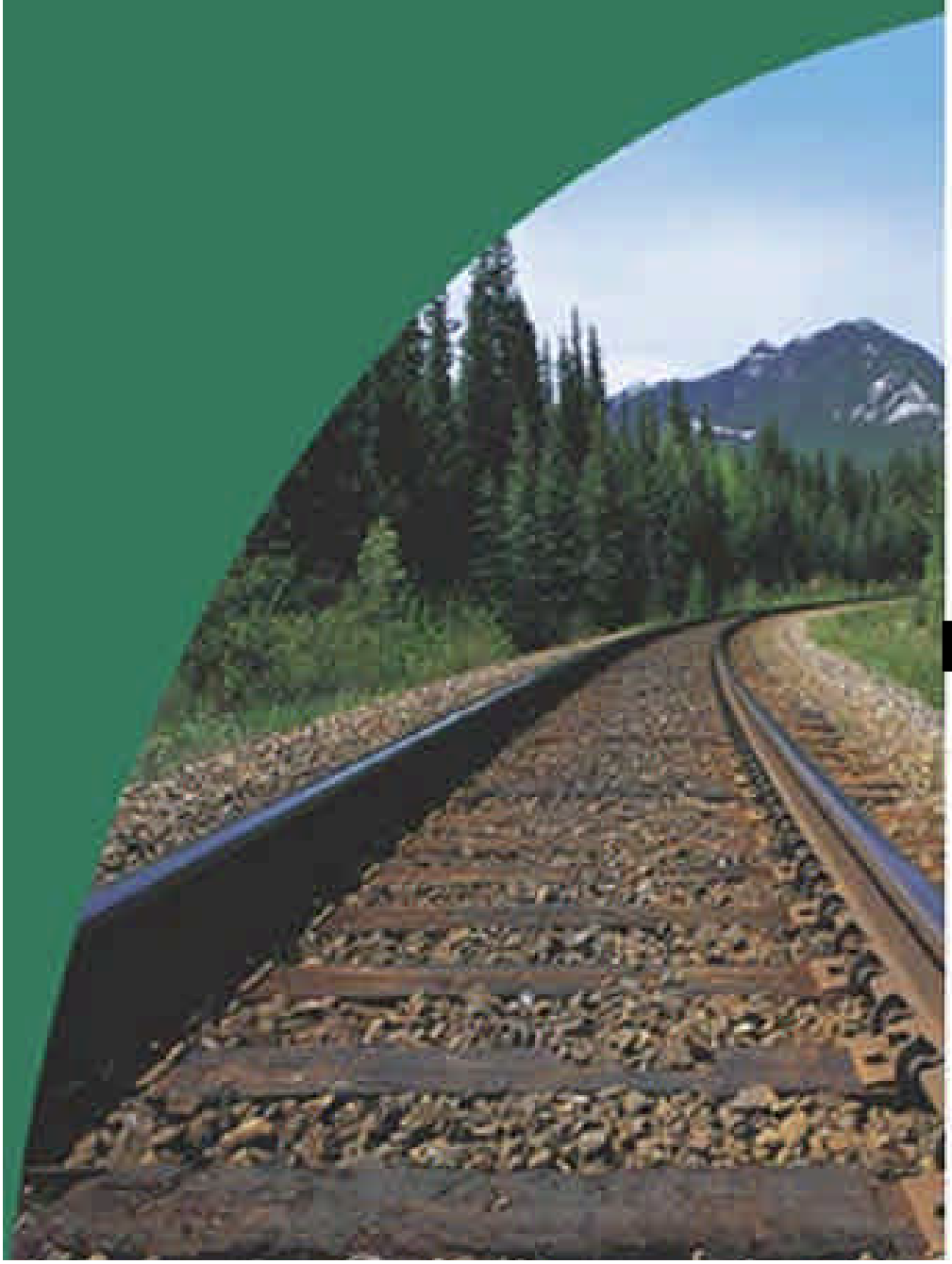
An Economic and Regulatory Framework for Rail Competitiveness



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Executive Summary

Research purpose. The Government of Alberta's long-standing interest in rail policy stems from the importance of effective and efficient rail transport to the economy of Alberta, western Canada and Canada. Western Canada needs effective and efficient rail transportation for its continued prosperity and Canada's railways need Western Canadian products, which account for 70% of their revenues.

This paper was commissioned by Alberta Transportation as a contribution to the national dialogue on Canada's rail transportation policy. Alberta Transport called for reflective, critical, and innovative thinking in the area of rail freight transport and encouraged new conceptual approaches to the legal and economic considerations facing decision-makers in Canada. The starting point was the recognition that effective regulatory reform is important to economic growth, job creation, innovation, investment and choice. Alberta challenged the authors to develop a framework that reflects the true spirit of public sector reform rather than the creation of a more onerous regulatory framework, and one which could be acted on if the political will exists.

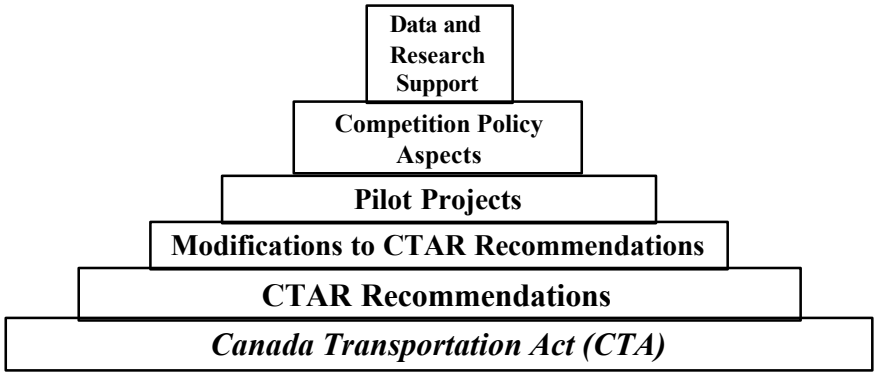
Research findings. Any new competitive framework for Canada's rail industry must reconcile two conflicting interests. Shippers, facing intense global competitive pressures with falling or, at best, stagnant prices, need reliable services and rates which allow them to maintain a competitive market position. Railways, as capital-intensive businesses, need reliable revenue bases to support their required capital investments and traffic to build densities on their lines.

This study considered two alternative approaches:

- Continued use of regulatory policy specific and unique to rail transportation.
- Use of general competition policy as an alternative to rail regulation.

While neither the existing transportation policy framework nor the existing competition policy framework alone suffices to provide a competitive policy environment for the Canadian rail industry, there are elements of both that could be enhanced and combined, to serve both the needs of shippers and the railway industry. This framework is offered in the hope of stimulating productive discussion and debate that will lead Canada to a workable policy framework that achieves the delicate balance sought by Alberta Transportation and other key stakeholders.

Framework model. The model of the proposed new policy framework can be depicted as follows:



The framework comprises six main components:

The *Canada Transportation Act (CTA)*: The foundation for the framework is the *Canada Transportation Act*. While not perfect, it does contain a number of pro-competitive elements that have proven successful. As such, it makes a reasonable starting point for Canada's future rail policy framework.

The *Canada Transportation Act* Review (CTAR) Recommendations. To refine the existing CTA foundation, we apply the recommendations of the *Canada Transportation Act* Review. The extensive CTAR exercise sought to balance out the interests of shippers and carriers. Given the difficulty of this task, and notwithstanding some concerns expressed by shippers and carriers alike, the Review Panel succeeded in developing a reasonable *transportation* framework. As a result, we recommend that the CTAR recommendations be, in general, supported.

Modifications to the CTAR Recommendations. The CTAR recommendations, however, themselves may require refinement, as there are a number of CTAR positions that may not facilitate a more competitive railway industry. As a result, the following modifications to CTAR are recommended for consideration:

- CTAR *Recommendation 5.5* advocated restricting competitive connection rate remedies to:

  > *shippers with no 'alternative, effective, adequate and competitive" means of transporting the goods that would be subject to the rate and where the Agency determines that the rate is substantially above rates paid by other shippers of the specific commodity under similar conditions and that cannot be explained by apparent cost and value of service considerations.*

  This poses a new, potentially significant, barrier to the use of competitive connection rate provisions by shippers. While arbitrators indicated to the CTAR that this

restriction might be acceptable, because it needlessly raises a new barrier, it should be rejected.

- Evaluate applications for running right in the context of type of track, rather than the homogenous approach in existence. Access to **branch lines** by low-cost innovative operators responsive to shipper needs may offer considerable benefit without imposing onerous impacts on the mainline carrier. A reverse onus test could be an appropriate means of addressing this potential opportunity for increased competitiveness. Access to **main lines** should only be provided under exceptional circumstances so as to not undermine the critical line densities that allow the Class I railways to provide economic service to shippers across the country. Shippers also have access via competitive line rate provisions or potentially competitive connection rate provisions. Access to rail lines in **urban gateways** could be provided for by application of Joint Track Usage provisions of Section 139 of the Act. As a general rule, a pro-competitive framework requires a reverse onus public interest test where possible.

- Examine opportunities for further streamlining Final Offer Arbitration proceedings to improve accessibility for smaller shippers. Specifically, requiring an arbitrator dealing with a Final Offer Arbitration under $750,000 to consider whether a shipper has alternative, effective, adequate and competitive means to transport the goods to consider, should be rejected as a new and potentially significant barrier to the use of FOA by smaller shippers.

- Requiring railways to publish level of service attached to rates in its tariff is insufficient as this does not rule out abuse of dominant position in confidential contracts or even published tariffs. Criteria to identify level of service standards are needed in order to determine what constitutes abuse of dominant position, and provision made for shippers to seek regulatory intervention regarding level of service in contract rates. Level of service is as much a potential source of concern as is price. Examine, in the case of significant service failure by the host railway, providing access to another person, potentially on the basis of a pilot project.

Pilot Projects. The foregoing gives a modified CTA framework for a more competitive rail environment. To this framework, a further refinement is required. The Canadian Transportation Agency and Transport Canada should be given the ability to push the bounds of the CTA regulatory framework by having the flexibility to approve pilot projects that test new processes. As an example, governments, co-operatives, Public Private Partnerships and/or other public entities could consider the possibility of acquiring one or more branch lines (and related infrastructure) from the Class I railways as a pilot project for vertical separation. Access to the public line(s) would be opened to established and new railways, and even to shippers desiring to operate their own service. This would allow testing of this concept in a relatively safe and controlled manner.

Competition Policy Aspects. Further refinement of the transportation framework requires application of competition policy. While Canada's existing competition framework is not appropriate as a replacement of the existing transportation framework, there are

elements that could enhance the ability of the transportation framework to foster a competitive rail environment:

- Consider the dynamic efficiency gains that could be realized through additional competition as an offset against the static efficiency losses of interfering with unrestrained Ramsey-type pricing by incumbent rail carriers

- Expand the scope of abuse of dominant position to cover elements beyond price. Abuse of dominant position typically focuses on pricing. Pricing, however, is only one element of the typical transaction for rail services: the level of service (LOS) one obtains for a given rate is equally important. Shipping a good at the right price, but having it delivered late, damaged, or not at all, substantially reduces, or even negates, the value of the movement. In addition, innovation is related to the level of service. Prevention of new and innovative services that could expand the existing market or create new ones (e.g., the impact that the innovation of low-cost air carriers has had on revolutionizing air travel in the U.S., Europe, and Canada) is equally important from a public policy perspective. Since abuse of dominant position can take the form of higher prices, lower service levels, or stifling of innovation, investigations into abuse of dominant position needs to examine all three elements. Thus, a pro-competitive framework requires full consideration of LOS impacts as part of any public interest test. This is especially true in the review of any future mergers or acquisitions.

Data and Research Support. One of the "costs" to market participants such as carriers of increased freedom from regulatory prescription should be the provision of adequate and timely data. Not only is this necessary for effective public policy and protection against abuse of dominant position, it is key to developing a level of trust between shippers and carriers that is sorely lacking in the rail transport industry.

In addition to improving the state of transportation data in Canada, there are a number of areas for further research by the stakeholders:

- Consider the development and application of a stand alone pricing test. The U.S. has a costing methodology, the Uniform Rail Costing System (URCS), the successor to the previous Rail Form A costing. While the URCS was designed for other uses, it has been used for stand alone costing, although it needs to be noted that there are limitations and problems with this costing system in general and in its use for stand alone costing in particular.[1]

  Application of a stand alone costing test in Canada will require development of a publicly available rail costing system. While this would be costly to develop, Canada may be able to utilize the URCS framework and apply it to Canadian data, although it would be preferable to address the limitations with the URCS framework and develop a better costing system. To the extent that this approach is costly, it could be proposed to shippers that they fund this part of this effort, as a means of determining

[1]Due to its limitations, there have been efforts, although unsuccessful, to replace URCS with a better costing system.

whether this effort has sufficient merit to pursue. Such an investigation would need to examine the following:

- How the U.S. applies the test.
- The costing methodology used to apply the test, and its limitations.
- Whether there is data available in Canada to estimate the required cost methodology.
- The resources and time required to develop and test the cost functions.

- Examine whether differential pricing is still justified. Price discrimination, as allowed in the rail industry, is based on shippers having significantly different price elasticities of demand. While decades ago, this assumption was valid, it is less clear today. Many price sensitive shippers have been lost to other modes, and a very large portion of remaining traffic is bulk traffic, potentially with similar elasticities. Newly expanded intermodal traffic also might be found to have demand elasticities similar to that of bulk shippers due to the lower share of transportation costs in final delivered prices of goods shipped. As well, the extension of interswitching limits may also have contributed to reduced numbers of 'captive' shippers with extremely inelastic demands.

  An investigation of price elasticities may reveal a much smaller range of elasticities than is commonly assumed. If so, this could be put forward as evidence a) for legislative reform to reduce the scope for differential pricing, and b) in dispute resolution on a case by case basis. In light of the potential for mergers and acquisitions in the rail industry stakeholders should investigate the evidence for recognition of dynamic efficient gains as an offset to static efficient losses from interfering with Ramsey (differential) pricing. Evidence from such a study should be included in the public interest evaluation of a proposed merger.

  However, it must be cautioned that for every shipper benefiting from reduced rates due to eliminating differential pricing, there will be other shippers who will face higher charges. If carrier returns are to be maintained, revenue reductions from one shipper group will need to be balanced with revenue increases from other shippers.

- Examine the merits of adopting a competition policy approach to rail transportation. The competition policy approach was considered in this study. However, in its current form, it was deemed not suitable for application to rail transport. The following changes to Canada's competition law would be required before serious consideration of this approach could be made:
  - Removal of the regulated conduct exemption that is effectively present for rail.
  - Decriminalize price discrimination behaviour to make it a civil offence.

- Allow individual action under the *Competition Act* with respect to price discrimination, rather than allow only the Competition Commissioner to make application to the Competition Tribunal or courts.

- Develop evidence of the benefits of ending price discrimination, such as the dynamic efficiency benefits, which will be necessary to prevent an economic efficiency gain defence of price discrimination.

It must also be pointed out that elimination of differential pricing will likely mean that some shippers will pay higher rates, in order to offset revenue losses from those shippers who will benefit from reduced mark-ups. It is possible that some of these shippers could be priced out of the market, resulting in traffic losses. The traffic losses in turn could result in a need for a general rate increase on the remaining shippers to cover the fixed costs of the rail system. Further study is suggested prior to implementing the new framework. A simulation study of the market might be considered to estimate how much traffic might be lost and whether the final state would in fact produce benefits for the remaining shippers.

1.0 Introduction

1.1 Background to the Study

The Government of Alberta's long-standing interest in rail policy stems from the importance of effective and efficient rail transport to the economy of Alberta, western Canada and Canada. Bulk commodities, still a staple of the western Canadian economy and the basis for much of Canada's export activity, are particularly reliant on effective and efficient rail transportation due to the price pressures these industries face competing on the world stage. As a part of the global supply chain for commodities, the viability of Canada's railways also rides on their competitiveness, as the traffic that Alberta and the western provinces generate produces over 70% of the revenues of the two major Canadian railways.

Western Canada needs effective and efficient rail transportation for its continued prosperity

…and…

Canada's railways need Western Canadian products, which account for 70% of their revenues.

As a result, Alberta Transportation has a long history of proactive involvement in Canadian transportation policy, particularly Canadian rail transportation policy. It played a significant role in the recent review of the *Canada Transportation Act*, submitting a detailed position paper to the Review Panel. It also played a role in the development of the provincial and territorial "Transportation Vision" document recently produced in response to the federal "Transportation Blueprint" initiative. It is fully committed to making a positive contribution to the national debate on the transportation blueprint and to work with stakeholders to develop an effective Canadian transportation policy that will address the major challenges we face over the next decade and more.

This paper was commissioned by Alberta Transportation as a further contribution to the national dialogue on Canada's rail transportation policy. Alberta called for "reflective, critical, and innovative thinking in the area of rail freight transport" and encouraged "new conceptual approaches to the legal and economy considerations facing decision makers in Canada." The starting point was the recognition that effective regulatory reform is important to economic growth, job creation, innovation, investment and choice.

Alberta Transportation commissioned this study to offer for debate a "reflective, critical, and innovative" framework to ensure shippers and railways alike prosper.

Alberta challenged the authors to develop a framework that reflects the true spirit of public sector reform rather than the creation of a more onerous regulatory framework, and one which could be acted on if the political will exists. This paper takes on that challenge and offers for consideration a framework for enhancing the competitiveness of rail freight transportation that is consistent with modern economic regulation as espoused by the Organisation for Economic Co-operation and Development (OECD) and others.[2]

It should be noted that the views contained herein are presented for discussion purposes, and do not necessarily reflect those of the Government of Alberta.

1.2 Context for the Study

Rail policy and competition in the rail industry has been subject to a considerable amount of study, directly or indirectly. There is a wealth of academic studies on railway costing in the U.S. and Canada, and more recently in the U.K. and Europe.[3] These have focused on determining the extent of economies of scale, scope and density, as these have policy implications for mergers and acquisitions, as well as for open access.

Railways, shippers, and provincial governments, among others, have undertaken studies on rail costs, rail pricing, rail competition, shipper captivity, and rail policy.

Rail competitiveness has been the focus of numerous investigations. There is very little new under the sun using existing paradigms.

There have also been a number of federal government sponsored Commissions and Reviews to examine policy options for enhancing rail competitiveness. Key examples are the MacPherson Royal Commission on Transportation; the Estey Grain Handling and Transportation Review; Kroeger's follow-up work as the Grain Handling and Transportation Facilitator, the recent CTA Review, and the current development of the Federal Minister of Transport's "Transportation Blueprint."[4] All of these efforts were designed to improve the regulatory framework for rail transport. The OECD, in its review of Canadian regulatory reform noted that while "rail sector gains are important … there is room for improvement." [5]

[2] The OECD recently published a report entitled *Canada: Maintaining Leadership Through Innovation,* which examined Canada's regulatory reforms. In the Press Release announcing the publication of the study, the OECD commended the "effective regulation and ongoing regulatory reform" that have "contributed to Canada's solid economic performance and relatively high living standards." The OECD noted, however, that "improvements are possible in some areas and would yield significant gains."

[3] See Bitzan (2000) or Oum and Waters (1996) for a thorough literature review.

[4] *Straight Ahead – A vision for transportation in Canada* was released by Transport Minister David Collenette on February 25, 2003.

[5] OECD, *Canada: Maintaining Leadership Through Innovation*, p. 29.

In particular, rail access provisions as a means to deal with limited competition between rail carriers have been a key focus for a vigorous debate.

A key concern of policy makers has been the issue of "captive" shippers – shippers that have no transportation alternatives to the single railway on whose track they lie – since such shippers could be vulnerable to excessively high charges imposed by that railway. To counter this, there has been considerable focus on the issue of competitive rail access. This was explicitly outlined as a key objective in the Terms of Reference for the *Canada Transportation* Act Review (CTAR):

> ***ISSUES REQUIRING SPECIAL ATTENTION***
>
> ***Competitive Rail Access Provisions****:*
> *The review panel shall consider proposals for enhancing competition in the railway sector, including enhanced running rights, regional railways and other access concepts. These concepts need to be assessed in the broader context of increasing North American integration and ensuring cost effective service for shippers over the long term. The review panel shall submit an interim report on access issues to the Minister of Transport by December 31, 2000.*[6]

It should be noted however, that the issue of rail competitiveness goes well beyond the presence or absence of captive shippers. Some degree of captivity is going to be common in rail transport. There are many shippers served only by a single rail line. The real issue is whether or not competitive forces and/or behaviour of rail management and/or regulatory intervention prevent unreasonable exploitation of that captivity. The problems are ascertaining how captive is captive, how to measure 'unreasonable' exploitation of a market advantage and what can be done about it.

The debate has been on what type of rail transport specific economic regulation should – or should not – be in place.

The main approach to the issue of *rail* competitiveness in Canada has been determining what best type of transport specific economic regulation should be in place. Canada's approach has been to move towards elimination of economic regulation in favour of greater reliance on competitive forces. In the rail context, competition could come from other railways (intramodal competition), other modes of transport (intermodal competition) or stem from market, geographic, or product considerations (market competition).[7]

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[6] *Canada Transportation Act* Review Terms of Reference, p.1.

[7] The ability of a railway to charge excessive rates to a "captive" shipper could be mitigated by a number of factors outside of inter- and intra-modal competition. The first, "market competition," refers to the degree of competition the shipper faces from other producers that enjoy competitive transportation alternatives. A competitive environment elsewhere effectively puts a cap on the rail charges he/she can pay. If the railway were to charge the captive shipper too high a rate, it would render the shipper uncompetitive, knocking

The *Canada Transportation Act* Review Panel concluded that it is: "…confident in the view that Canada's rail system is not inherently anti-competitive; nor is market abuse systemic or widespread."[8]

Canada's approach has been to rely on competitive forces. Given few players in the rail industry, there are mixed views on the degree of competition. While CTAR concluded that market abuse is not widespread, it did acknowledge that problems could exist.

The Review Panel did acknowledge, however, that problems could exist. Moreover, even if the current environment is generally pro-competitive, a question can be asked if the current regulatory environment is conducive to preserving competitive behaviour if there is a significant change in the operating environment (for example, in the case of a railway merger). There are indications in recent rulings by the Canadian Transportation Agency which some view as indicating that the current regulatory environment does not provide an adequate framework for the future, and is now already showing signs of inadequacies.

As the federal government has just released its "Transportation Blueprint" to guide transportation policy for the future, the timing is right for a review of the economic and regulatory framework for rail competition. The challenge is to develop a framework which will work now and in the future and that satisfies the needs of the railways for adequate returns, management flexibility, and market opportunities, as well as satisfies shippers' needs for competitive service, innovation, and an effective supply chain linking shippers with customers.

Can a framework be established that meets the needs of both railways and shippers, and serve Canada now and into the future?

1.3 Structure of the Study

This report first reviews the current competitive situation in the Canadian rail industry. This includes evidence of shipper captivity, as well as the broader competition issues and other issues of importance to shippers and railways alike. It then reviews the evolution of rail policy in Canada and compares this to other jurisdictions of note.

In particular, the globalization of the world economy and the increasing integration of the Canadian, U.S. and Mexican economies under the North American Free Trade Agreement

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him/her out of the market and causing the railway to lose all revenues from that shipper. The second, "geographic competition," refers to the ability to switch end markets (or source markets) and use an predominantly different supply chain that minimizes or eliminates use of the railway the shipper is captive to, wither by switching direction of travel, or distance (making other modes a viable option). The third, "product competition" refers to the ability of a shipper to use or produce a substitute product that is not reliant on rail. As an example, instead of shipping an unprocessed bulk commodity, the shipper could process the commodity and ship a less bulky, higher valued, product.

[8] *Vision and Balance*, the Report of the *Canada Transportation Act* Review Panel, p. 56.

(NAFTA) necessitates a look at U.S. and Mexican rail policy. It is no longer reasonable to adopt an isolationist perspective in developing Canadian transportation policy, despite the oft-heard desire for a "made in Canada" policy.

This paper then examines two paradigms for consideration as means to ensure a competitive rail industry: transportation policy; and competition policy. A competitive framework is developed based on these two paradigms and offered for debate.

2.0 Rail Competition in Canada

2.1 Introduction

The traditional industrial organization approach in economics looks at the structure of an industry, the conduct or behaviour of the firms, and the resulting overall performance of the industry – structure/conduct/performance. As is well known, there are linkages between these. For example, a market structure that is monopolistic is conducive to conduct to exploit that monopoly power, and this often results in reduced performance of the industry. In contrast, an industry with many competitors, each lacking market power, is expected to lead to conduct which establishes prices close to marginal costs and superior economic performance. But it is important to note that a wide variety of outcomes and behaviours can arise. Market structure alone will not indicate competitive outcomes. Measures of performance against the competitive ideal are necessary. Oligopoly markets can produce a wide range of outcomes, from lazy and inefficient firms to those with a strong corporate culture emphasizing efficiency and customer service. Game theory is a recent advance in the analysis of oligopoly markets, although it is yet to be applied to Canadian rail transportation markets.[9]

Market structure alone will not indicate competitiveness. Measures of performance against the competitive ideal are necessary.

The simplest indicator of the presence of competition is the number of firms. For capital intensive industries however, many markets cannot sustain a large number of competitors. Because railways are so capital intensive, there will be many markets served directly only by one line with the danger of market power in those markets. One has to look for indicators of behaviour and/or measures of performance to assess if there is an "abuse" of this dominant position. The ideal performance standard is to compare actual outcomes with those of competition, but in the rail case, direct competition between rail carriers might not be possible.

[9] Game theory is the scientific, or mathematical, analysis of strategic decision making. The underlying premise is that decisions are made knowing that the outcome depends not only on your own decision, but on the decisions made by other players. For example, an oligopolist's pricing decision depends not only on factors such as costs and demand, but on the pricing decision that will be made by the other firms in the industry.

The concept of competition in rail transport has been extended to consider:

- intra-modal competition between rail carriers;
- intermodal competition with trucking and marine carriers; and
- the competitive threat of alternate locations or sources of supply.

This chapter reviews the extent of direct and indirect competition, as well as evidence from the level of innovation, productivity, and economic measures of competitiveness.

2.2 Intramodal Competition

Intramodal competition exists when a shipper has access to more than one rail carrier at the same location, or has the same effective access through regulatory provisions.

The 1996 *Canada Transportation Act* mandated that a comprehensive review of transportation policy be carried out; this was done in 2000/01 and findings published in the document *Vision and Balance: Report of the Canada Transportation Act Review Panel* published in June 2001. As part of this review, research was carried out which examined the extent of competition within the rail fright sector.[10] The research used data from Transport Canada to examine the proportion of rail freight traffic that was within 30 kilometres of an interchange with another railway. The 30 kilometres represents the threshold where a shipper served by one rail carrier could switch the traffic to another carrier at a regulated rate, under the existing "interswitching" provisions.

The research found that, excluding border crossings, 20.7% of rail traffic volume (by tonnage) had access to interswitching at both the origin and destination. When traffic passing through border points was included, this percentage increased to 38.7%. The research concluded that, at a minimum, about 40% of Canadian rail traffic has access to direct rail competition. In the case of grain traffic, it was found that only 24.2% of traffic had access to interswitching at both the origin and destination, considerably less than the figure for total traffic.

A survey of shippers was carried out for the CTAR. This survey found that, excluding grain producers and terminal operators, 61% of shippers had access to more than one railway or were within interswitching limits. The survey did not estimate the volume of traffic this represents.

Captive shippers

- **Transport Canada data: 40% of rail *tonnage* has access to direct rail competition.**
- **CTAR survey: 60% of *shippers* (excluding grain) have access to more than one railway.**

[10] Details can be found in *Note on the Evidence About Competition in the Rail Freight Sector*, found on the CD-ROM accompanying the *Canada Transportation Act* Review report.

2.3 Intermodal Competition

Intermodal competition is where the shipper has an effective competitive choice from a mode other than rail transportation, such as trucking or marine. Research conducted for the CTAR and reported in the *Note on the Evidence About Competition in the Rail Freight Sector*, found that large volumes of resource-based bulk commodities, such as coal, potash, wood pulp, non-ferrous metals, sulphur, wood pulp, and long-haul grain movements are moved by rail as their geographic locations do not make trucking an option. As such, there is little intermodal competition for these movements. The percentage of volume carried by rail for various commodities, originally presented in the research note, is given in **Table 2-1**.

Table 2-1: Proportion of Rail Traffic by Commodity

Commodity	Rail Tonnage as a % of Combined Rail and Truck Tonnage
Grain	87%
Coal	98%
Potash	100%
Wood pulp	92%
Non-ferrous metals	84%
Sulphur	85%

Source: Transport Canada, 1996 (most recent year available)

The CTAR noted that although it may be theoretically feasible to move half the rail freight by truck, this does not necessarily mean that trucking is an effective alternative. Whether trucking could effectively compete depends on factors such as the distance to market, the volume of traffic, the existing modal share, and the relative yields of the two modes. For example, 1996 data from Transport Canada suggests that 600 km is the practical limit for the competitiveness of trucking with rail.[11] This suggests that trucking is not as effective in providing competition to rail for long-distance movements.

The CTAR research tried to determine the amount of contestable traffic by estimating the amount of rail freight that travelled less than 600kms and travelled in sufficiently small volumes as to be transported by truck (i.e., less than 10 cars at a time). Only 4.3% of 1996 traffic (8.8 million tonnes) was found be to be contestable by that definition. Similarly, the survey of shippers carried out in CTAR found that 9% of shippers' facilities currently using rail could viably use trucking instead. The review concluded that the amount of rail traffic actually contestable by truck is limited.

[11] It should be noted, however, that the average length of haul for intercity trucking in the U.S. now exceeds that of rail.

2.4 End-Market, Geographic and Product Competition

End-Market competition is a situation where a rail carrier's rates for a particular shipper are influenced by the competition that the shipper faces from shippers and producers elsewhere in the country (or overseas) served by different carriers. So if a rail carrier charges "excessive" rates to the shipper, the shipper will become uncompetitive in his/her industry, resulting in less (or no) business for the carrier. An example is the end market competition of salt cake from Saskatchewan used in paper production – it faces competition from salt cake from eastern Washington State carried to market by a U.S. rail carrier.

Geographic competition is a situation where rail rates are constrained by a shipper's ability to ship a product to another destination using a different carrier, or likewise, obtain inputs from a different destination. If a rail carrier tries to charge "excessive" rates to ship a product to a given destination, the shipper can choose to ship that product to another destination (i.e., market) using a different carrier.

Product competition occurs when the shipper can avoid using a rail carrier by shipping or receiving a substitute product using a different carrier. As an example, instead of shipping an unprocessed bulk commodity, the shipper could process the commodity and ship a less bulky, higher valued, product.

The CTAR refers to these forms of competition as indirect intramodal competition. The survey of shippers carried out as part of the review examined the presence of indirect competition. Some presence was found but the impact on rates or service could not be quantified. Shippers using rail were asked whether their products competed with similar products from other countries or with producers using different railways (i.e. end-market competition). The survey found that 11% of shipper's facilities did face this form of end-market competition. The survey found some evidence that these facilities did report a larger decrease in rail rates than the total survey average, the difference was not statistically significant.

There is some evidence of limited impacts from geographic and product competition.

The survey of shippers also asked about geographic and product competition. A small number of shippers (the percentage is not given in the review) indicated that they could ship to/from another destination or ship a substitute product using an alternative carrier.

2.5 Other Considerations in a Competitive Environment

2.5.1 Productivity

Tracking and analysing productivity performance can be useful for assessing performance. Improved rail performance lessens the railways' need for revenue, not that this guarantees

holding down prices. But whatever can be done to hold railways at least broadly accountable for performance and improved efficiency, this is in the interests of shippers even if it does not immediately translate into lower rates. Individual shippers can monitor their own and a railway's performance in delivery times and reliability, damage rates, changes in freight rates, etc., over a period of time. Shippers (and Government) want improved performance and to share in the performance improvements.

Performance improvements can be investigated quantitatively at the aggregate level. Total factor productivity (TFP) compares the growth of total quantity of output with growth of total input requirements. Ultimately, productivity improvements are the source of increased wealth. It is not widely known, but the TFP data can be used to show the trend in productivity sharing between the company and customers in aggregate. As noted, productivity is a measure of output quantities compared to quantities of inputs. One can also plot the prices paid for inputs relative to the prices received for outputs. Plotting these together reveals the aggregate pattern of productivity sharing. Productivity enables the firm to survive despite the prices paid for inputs exceeding the prices they receive for outputs supplied. Productivity gains are an important performance indicator of firms and/or an industry, and the sharing of productivity gains would be an indicator of competitive forces working, although this can only be tested on aggregate data and not for individual commodity movements.

Expressed another way, productivity gains result in lower costs. By tracking how unit revenues change compared to unit costs over time, this reveals the extent to which productivity gains are passed on to customers as lower rates or retained by firms as higher profits.

CTAR examined productivity, as measured by TFP, and found that between 1988 and 1999, 75% of the productivity gains achieved by the railways were passed onto shippers. In the early 1990s, price decreases exceeded productivity gains weakening the railways financial position; however, since 1995 (the year before the passage of the current *Canada Transportation Act*) the railways have retained a greater proportion, about 60%, of the productivity gains.

CTAR found that 75% of railway productivity gains between 1988 and 1999 were passed on to shippers; evidence of competitive forces at work. Since 1995, the railways kept a bigger share (about 60%).

CTAR also noted that there have been notable improvements in traffic density, particularly since the passage of the *Canada Transportation Act.* (an increase of 80% in the last 10 years, most since the mid 1990s). There have also been gains in labour productivity (as measured by revenue-ton-miles per employee) as well as the aforementioned total factor productivity.

2.5.2 Innovation

Real productivity gains depend on innovation – on the steady flow of new ideas, products and processes. It is estimated that over the past 50 years, more than half of all

productivity gains in the US economy have come from innovation and technical change. The central driver of innovation in the business world is competition. Through innovation, firms can offer services and products that are cheaper, higher quality and more effective than their competitors. Firms sheltered from competitive forces have considerably less motivation to be innovative. There is still some incentive as a firm can lower costs and increase profits, but little of the benefits necessarily are passed on to the consumer.

If correctly applied, regulation can provide a substitute for market competition, providing the impetus to innovate and ensuring a fair share of the benefits are passed on to the consumer. Much of the productivity gains discussed in Section 2.5.1 were achieved through labour and track rationalization. It is unclear how much of the gains were due to innovation and, more importantly, whether the level of innovation was commensurate with that achievable in a free market environment.

Regulation itself, however, can also be a *hindrance* to innovation. There are any number of examples, but recent rulings by the Canadian Transportation Agency have failed to allow the development of innovative services even in cases where a Class 1 railway was repeatedly found to have failed to provide adequate and suitable service (i.e., failed to fulfil its common carrier obligations).

Refining existing regulation, or even abolishing it, is one mechanism for fostering innovative approaches to existing concerns. There is also an opportunity for Canada to stimulate innovation by providing regulatory mechanisms to permit pilot projects to demonstrate the validity of various services, processes, or policies, without requiring an overhaul of the existing legislative framework. Examples can be found in the air industry, where pilot projects have been used effectively to demonstrate the benefits of new passenger handling process at airports (e.g., CanPass, In-transit Preclearance) as well as cargo policies (International Cargo Transhipment at Mirabel). Carriers, shippers, and other parties should be able to apply to the Agency or Transport Canada to undertake a pilot project, without any binding commitment for a future approval.

A critical shortcoming in fostering innovation is the lack of any significant level of funding for transportation research on policy and technology. CTAR noted this issue, and the resultant threat of not only stagnant policy and technology, but a potential lack of transport researchers and other qualified personnel for government and industry alike.

Although many universities have found alternative sources of funding, the cancellation of Transport Canada's university research funding program in the mid-1980s gives great cause for concern. The U.S. has recognized the danger, and has provided funding to establish and support roughly 50 university and other transportation centres; CTAR recommended that the Government of Canada increase its support of transportation research (Recommendation 18.7).

A parallel concern to that of insufficient support for research, is Canada's lack of an up-to-date, comprehensive, consistent and accessible transportation database. Information not only is key to effective policy making, it is a fundamental prerequisite for a deregulated environment. The competitive model depends on the players having the necessary

information. Canada lags far behind other developed nations, particularly the U.S., when it comes to the provision of data.

CTAR examined this issue in some depth. Suffice it to say here that Canada needs to abandon its tendency to consider information concerning the traffic, facilities, service providers, and the environment in which they operate, as highly confidential. Rather, the Government of Canada (and Transport Canada in particular) must recognize that the provision of data is critical to guard against abuse of dominant position and other market failures and ensure an effective, efficient, and innovative industry.

It is important to note that railway innovation can only be made in a financially sound operating environment. Railways are highly capital intensive, with much of their assets fixed and immobile. Pay-back times are long. Class 1 railways need approximately $1.3 billion in investment in each of the next five years simply to renew depreciating assets. Without the ability to earn sufficient financial returns to permit investment, the railways will stagnate. Again there is a need for balance between the competitive forces that can stimulate innovation and the requirement for sufficient returns to enable the railways to invest.

2.5.3 Innovation and market structure

An important issue in the economics of innovation is what role, if any, market structure plays. There is ample evidence that transportation sectors and telecommunications achieved dramatic increases in productivity after they were deregulated. Cell phone manufacturing, which has a number of producers and intense competitive conditions, is another example. But the evidence is mixed. Major productivity gains were achieved in the movement of coal to tidewater in Canada, in spite of an apparent lack of a competitive rail carrier. In this case, end market competition with Australian sourced coal may have been the driver of innovation.

To further complicate matters, market conduct (innovation in this case) has a feedback to market structure. The development of the PC completely undermined the structure of the computer industry in several ways. New hardware manufacturers emerged injecting competition. As well, the unbundling of hardware and software (which at least one mainframe computer manufacturer had vertically integrated) changed market structure, which in turn drove further innovation.

As a general rule, but not uniformly, competitive market structures drive market conduct to innovate products and delivery mechanisms. Of importance to the rail industry is how policy innovation to change market structure has driven some competitive outcomes. In Europe (e.g., Sweden, the U.K., and Italy) and Australia, government policy separated the provision of track services from the provision of transportation services.

In several other countries, governments have fundamentally reorganized their rail industries by separating the provision of rail track services from the operation of trains into

separate companies. While this approach has been discussed from time to time, it has not been adopted in Canada.[12] However, separation of infrastructure from railway operations is becoming more common in other regions of the world.[13] The concept has been endorsed by the World Bank, which often requires a commitment to move in this direction as a condition of World Bank assistance.

The European Union has been leading the way in an attempt to revive their ailing rail industry. The EU has agreed on general policy directions but the member states are at different states of evolution, with Sweden and the United Kingdom as the most advanced. Australia has also pursued this approach.

Conceptually, there are several attractive dimensions to vertical separation:

- **Increased rail competition**: shippers would have access to potentially new rail service providers.
- **Equal access**: everyone could potentially have equal access to the country's rail system.
- **Network efficiency**: one entity could assume control of the entire rail network which would attempt to optimize system efficiency.
- **Level playing field**: train operators would become more similar to trucking competitors who are not required to directly fund road infrastructure.

There are however some fundamental differences between Canada's rail system and those in countries like the U.K., Sweden, and Australia, which have adopted this approach:

- **Government ownership**: the railways in these countries were government owned. Canada's railways are privately held; a shift would amount to expropriation of capital.
- **Traffic base**: most of these foreign carriers carry primarily passenger traffic, except Australia.
- **Poor financial performance**: these railway industries were in a much weaker financial position than Canada's; productivity was also much lower. Government subsidies were required to assure their viability.
- **Market share**: these railways were losing market share to the trucking industry whereas in Canada this trend has slowed dramatically.

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[12] Unlike other countries, which tended to have government-owned railways, Canada and the U.S. continue to have mostly private-sector railways which are fully integrated, operating trains over their own fixed plant. Thus changes of this nature would be much more complicated.

[13] The CTAR noted that the rail models in Europe are not particularly relevant to Canada. Rail transport in those nations is dominated by passenger services, and with the exception of specialised lines (such as Iron Ore Lines in Northern Sweden, there is little traffic in heavy freight.

Notwithstanding challenges that have emerged with track services in the U.K., most of these experiments resulted in the emergence of greater competition in transportation services. This in turn led to improved services and lower rates, which drove increased rail market share. However, the results to date have not been conclusively positive. There are also significant questions about the impact of vertical integration if Canada pursued this strategy and the United States did not.

It is believed that there is not sufficient evidence to consider pursuing such a drastic policy shift in Canada at this time. There is, however, one possible exception. For branch lines, there may be an opportunity for one or more governments/ or other public entity to consider acquiring one or more lines from the Class I railways and making the line(s) and related infrastructure available to established or new railway operators. This would provide an excellent opportunity to test a pilot project for this concept in a relatively safe and controlled manner.

2.6 Traditional Approaches Toward Economic Evidence of Captivity

2.6.1 Rationale: differential pricing is necessary to cover costs

Rail carriers argue, and are widely supported by pricing theory in network industries, that differential pricing is necessary to cover costs. Lower rates in competitive markets allow the railways to increase the amount of traffic carried on the network, sharing the costs (much of which are fixed) over a greater number of customers. In other words, if the carrier did not charge lower rates to some shippers, these shippers would be lost (either go out of business or use another mode) and so the network costs would be shared over a smaller number of customers resulting in higher rates for all.

Network theory shows that without differential pricing, price sensitive markets would be lost, leaving remaining traffic to shoulder a larger burden of costs.

2.6.2 Measurement by disaggregate traffic costing

Perhaps the most common method for determining monopoly power is to assess the costs and profitability of any given traffic. However allocating costs to a given service or type of traffic is a complex task due to the mix of fixed and variable costs involved in running a rail network. The most common cost measurement approach used by shipper and carriers is disaggregate cost analysis aimed at estimating the costs of individual movements. This approach to costing is done by establishing the costs of various rail activities or work units (e.g., yard-switching operations separated from line-haul, maintenance of track, maintenance of rolling stock, locomotive operations, marketing and sales, etc.). The idea is to first establish the expected costs of various work activities and relate them to the total amount of an activity (e.g., car repairs related to total car miles and/or car days of service). Then the cost of any individual movement is the sum of the various components of work

that have to be performed in conjunction with a specific movement, times the cost coefficients for each activity. Ideally, this approach provides an estimate of the incremental or variable costs associated with a specific traffic movement, *given* the existence of all other traffic and hence work required by the railway. The latter is important because many work activities are shared over various types of traffic; directional imbalances in freight movements also affect the measure of costs for specific traffic movements.

Each railway company will have a costing manual; these are the detailed procedures they use to develop cost estimates. They have information on specific costs associated with their own activities in different regions. Typically they will have some practice or belief about what fraction of cost categories are thought to be variable with traffic volumes (called a "percent variable" and which may be applied to specific cost categories at a detailed level or applied to a number of cost categories). The estimated variable costs divided by aggregate traffic or work statistics (e.g., gross ton miles, locomotive miles, switch engine hours, etc.) produce the unit cost coefficients. In a few cases they may use public data from other railways to estimate a statistical relationship between cost categories and output measures. In the U.S. these data were originally collected by the ICC (Interstate Commerce Commission, predecessor of the Surface Transportation Board) and published, but in recent years the data are collected by the Association of American Railroads (AAR) and available for purchase. There is a regulatory approved disaggregate costing system in the U.S., known as URCS (Uniform Rail Costing System). This has been in existence for many years undergoing almost no revision despite inquiries that drew attention to many econometric and data shortcomings in the current procedures [ICC *Ex Parte* 431 hearings].

Although disaggregate approaches are useful in dealing with specific situations such as a carrier-shipper rate and service negotiation, a Final Offer Arbitration, or certain regulatory proceedings, they have limited use in making inferences about more general industry conditions. They assume that the various tasks are independent of each other, and thus do not capture the interrelationships that exist in the rail system.

Data for calculation of disaggregate costing analysis can be purchased from the Association of American Railroad. The approach recognized by U.S. regulators is the Uniform Rail Costing System.

There are a limited number of consultants and disaggregate costing programs available to shippers in Canada and the U.S.

2.6.3 Aggregate cost functions

An alternative approach to rail cost, pursued in academic research as well as by those interested in broad public policy issues, is the aggregate cost function approach, which employs the entire output of one firm in one year as one data point. The purpose is to infer cost characteristics across firms and years. Traditionally this approach is used to estimate the presence of economies of scale and density (i.e., broad industrial characteristics).

These have implications, such as tendency toward merger and monopoly if there are substantial returns to scale. Although this costing approach is of limited relevance to ascertaining the costs of individual movements, it is useful for analysing the industry and drawing policy inferences to guide the development of a framework to balance carrier and shipper interests.

2.6.4 An application of the aggregate cost function approach: Bitzan

The most significant recent econometric analysis of rail costs was undertaken by John Bitzan of the Upper Great Plains Transportation Institute of North Dakota State University.[14] This study is significant because it employs more recent data than previous studies and because Bitzan takes full advantage of the various econometric advances pioneered by earlier authors. Among the innovative elements of the study, Bitzan investigates a "quasi cost function" which excludes way and structure costs in order to investigate the behaviour of the remaining rail costs.[15]

This enables him to investigate the properties of rail costs if above the rail operations were separated from road and track, as would be the case if one moved toward some type of open access regime.

Bitzan assesses the implications of the cost findings of his study for railroad pricing, i.e., the size of the mark-ups needed in a differential pricing framework.

> *"There are three important factors that influence the size of the mark-up that must be charged in 'captive' markets (those with inelastic demand) in order to ensure that the railroad breaks even. These include: (1) the degree of scale economies, (2) the elasticity of demand in competitive markets, and (3) the portion of traffic that is captive." (Bitzan, 2000, p.77)*

The cost function results provide the data for (1), that is, the extent to which marginal costs are below average costs hence require mark-ups for the firm to break even.

He then analyses revenue and traffic characteristics for the Class I rail carriers as well as revenue-cost comparisons for various traffic categories. He employs the Uniform Rail Costing System (URCS) to estimate commodity specific variable costs using average shipment size and other characteristics. These are compared to revenue estimates obtained from the Surface Transportation Board (STB). These results are shown in **Table 2-2**.

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[14] Bitzan, John, "Railroad Cost Conditions – Implications for Policy", prepared for the Federal Railroad Administration, U.S. Department of Transportation, May 10, 2000.

[15] The "quasi cost function" is not a "true" cost function, as it does not include all costs. For the purpose of examining the cost implications of multiple firms operating on a common network, however, it is appropriate to exclude the cost of way and structures, which do not apply to all firms.

Table 2-2: Estimated Revenue-to-Variable Cost Ratios Using Nationwide Average Shipment Characteristics

Commodity (STCC)	Revenue-to-Variable Cost Ratio
Farm Products (01)	1.27
Metallic Ores (10)	2.41
Coal (11)	1.57
Non-metallic Minerals (14)	1.62
Food and Kindred Products (20)	1.40
Lumber and Wood (24)	1.67
Pulp, Paper and Allied Products (26)	1.96
Chemicals (28)	1.98
Petroleum and Coal Products (29)	1.64
Stone, Clay, Glass and Concrete Products (32)	1.96
Primary Metal Products (33)	1.78
Transportation Equipment (37)	2.17
Waste and Scrap Materials (40)	1.65

Source: Bitzan (2000) Table 9, p.85

Of course, these average figures would conceal a wide range of mark-ups within each category. It should be noted that the U.S. regulatory system has a "jurisdictional threshold" before rail rates can be subject to regulatory review. The threshold is 180 percent of variable costs. This does not mean that any rates above 180 percent are deemed to be excessive, rather this is the minimum threshold before the regulatory apparatus is set in motion to evaluate the market conditions.

Bitzan applies this simple test to categorize which commodities will be labelled captive. This is a rough estimate, but it enables exploration of cost and revenue relationships. Metallic ores, transportation equipment, chemicals, paper products and stone products are the only ones that reach the U.S. jurisdictional threshold for potential captivity.

Bitzan's results indicate that captive traffic would have to face much higher mark-ups if not for the contribution made by lower rated traffic.

Bitzan then calculates "polar" Ramsey mark-ups. These are the mark-ups that would be required from captive traffic *if* all the competitive traffic were priced at marginal costs, i.e., made no contribution to the overall revenue needs of the carrier. He calculates the proportion of the high mark-up commodities for each of the Class I railroads, and calculates the indicated polar mark-ups (ignoring the possibility that the traffic simply could not bear such charges). These are shown in **Table 2-3.** He does not discuss this point,

but the fact that revenue/cost ratios do not approach these levels in practice is indicative of the revenue contributions that are made by other traffic. That is, the captive traffic would have to face much higher mark-ups than they face now if it were not for the cumulative revenue contributions of lower rated traffic.

Table 2-3: Estimated Polar Ramsey Mark-ups by Railroad, 1997

Railroad	Proportion "Captive"	Polar Mark-up
Burlington Northern–Santa Fe	0.16	5.01
CONRAIL	0.24	3.69
CSX	0.26	3.84
Grand Trunk & Western	0.45	4.66
Illinois Central	0.32	7.32
Norfolk Southern	0.23	3.64
Soo Line	0.29	6.07
Union Pacific	0.24	3.20

Source: Bitzan (2000), Table 10, and p.86

Bitzan then goes on to analyse the implications of merged versus multiple rail operations, comparing the costs savings that would be lost (according to his aggregate econometric cost analysis) if rail competition were encouraged, versus the level of welfare benefits that could arise from price reductions due to increased competition. He concludes, "... large price decreases would be necessary to offset the increases in costs that would result from multiple-firm operation." (Bitzan, 2000, p.96).

His overall conclusion is that "... to the extent that rate and service problems exist in the railroad industry, policies aimed at strengthening rate reasonableness guidelines and service guidelines would be preferred to policies aimed at introducing or preserving competition." (Bitzan, 2000, p.100).

This is a similar conclusion to that of the *Canada Transportation Act* Review Panel, which concluded that: "Canada's rail system is not inherently anti-competitive; nor is market abuse systemic or widespread. Indeed, by all available indicators, most shippers in most markets in most parts of the country are well served.[16]

Despite the general conclusion, this still leaves the question of what exact steps can be taken to provide regulatory relief in those circumstances deemed to be unreasonable. Bitzan's work only considered static efficiencies and did not consider other public policy issues such as innovation and dynamic efficiencies.

[16] *Vision and Balance*, the Report of the *Canada Transportation Act* Review Panel, p. 56.

2.7 An Alternative: Abuse of Dominance

2.7.1 Captivity versus Abuse of Dominance

The extent of intramodal, intermodal, and market competition varies considerably. Some shippers enjoy a number of transportation options; others do not, and could be considered captive.

Although the phrase "captive shipper" is widely used in discussions about rail pricing and the extent of market competition, a more useful perspective may be to adopt a phrase from competition policy: "abuse of dominant position."[17]

It is inevitable that there will be some degree of captivity in rail transport. There will be many shippers served by a single rail line. The real issue is not captivity per se, but whether or not competitive forces and/or behaviour of rail carriers and/or regulatory intervention prevent unreasonable exploitation of that captivity.

Focusing on the concept of the "captive shipper" may be less useful than an examination of "abuse of dominant position."

… some degree of captivity is inevitable in rail transport.

… The real issue is not captivity per se, but whether or not there is unreasonable exploitation of that captivity.

2.7.2 Measuring exploitation of market advantage

The challenge is in ascertaining how to measure 'unreasonable' exploitation of a market advantage. In assessing competitive performance in most industries, price comparisons with other markets or suppliers is a common tactic. Three approaches are possible:

- Comparing rail prices between shippers;
- Tracking rail prices a given shipper faces in different markets (with different degrees of competition) or over time; or
- Measuring mark-ups over costs.

Railway pricing generally is confidential so there is less opportunity for making direct price comparisons, other than the broadest references to revenue per tonne or tonne-kilometre for aggregate commodities. Note that confidential pricing is not necessarily against the shippers' interest, indeed shippers were strong advocates of it. With confidential contracts,

[17] It should be noted that in Canada, the term 'abuse of dominance' generally construes behaviour of the dominant firm toward its smaller competitors, such by predatory pricing, refusal to supply, etc. Here we use the term in a more general sense, where abuse of dominant position can also apply to behaviour toward customers.

shippers and railways can negotiate concessions without triggering across-the-board cries for the same rate concessions but which may not entail the same service arrangements. Most think rail pricing would be much more rigid in the absence of confidential contracts.

The lack of data on rail prices due to confidential contracts and Canada's tendency to not make data available severely limits the ability to examine pricing behaviour.

Large shippers may be able to make comparisons among rates and service at different locations for their own traffic. Most firms can track rates and service performance over time, to at least assess trends in their own business relative to overall average revenue statistics. But the fact remains that most shippers will have limited ability to make price comparisons between their own prices and those paid by other shippers in similar circumstances.

The third approach is to develop an estimate of the rail carrier's costs of handling a given movement of traffic, and comparing this to prices charged so as to determine mark-ups above costs. While shippers have limited information on rail carriers costs, there are consultants who have developed rail costing models to estimate such costs.

The use of confidential contracts may have accelerated the use of differential pricing whereby rail carriers charge different percentage mark-ups over variable cost, depending on the responsiveness of shipper's demand for rail service. The result is that some users pay more than others for the same quantity of goods shipped over the same distance. (As well, some shippers pay less than others.) The pricing strategy is demand-oriented rather than cost-determined. Critics argue that differential pricing is evidence of a lack of competition and abuse of monopoly power. They argue that the "excessive" charges some shippers pay to monopoly rail providers effectively subsidize the rates of shippers enjoying intermodal and/or intramodal competition.

2.7.3 Differential pricing does not necessarily result in economically inefficient performance

The use of differential pricing has been used as proof of a lack of competition, but there are solid economic efficiency arguments for differential pricing in rail. Furthermore, such activity also takes place in competitive industries.

However, there are many clearly competitive industries where differential pricing occurs. For example, the airline industry uses this approach where a price insensitive traveller buying a last minute ticket for a flight pays significantly more than a person who booked several weeks in advance for the same class of travel on the same flight. Another example is beef production, where a variety of prices will emerge in the market place reflecting demand (e.g., the price of steak is high relative to the price of kidneys).

However, it must be noted that differential mark-ups do not necessarily result in poor economic performance. A little known theorem in economics is that the case of perfect

price discrimination (where every consumer pays a different price based on their unique willingness/ability to pay) is economically efficient. Economic efficiency is achieved when market signals are such that the last unit of service purchased is just equal to the cost of providing the last unit of service. So long as the last consumer in the market can procure rail services at the carrier's marginal cost, the market outcome is efficient. The fact that some shippers pay significantly more than others may be an issue of equity or fairness, but it does not necessarily result in economic inefficiency.

2.7.4 Testing for exploitation of market power

From the preceding section, we see that the mark-up on any single product is not a legitimate test for exploitation of market power monopoly.

What then should constitute a test? One clear criteria is whether or not overall revenues exceed a normal (competitive) return for an efficient firm. A shipper that can show the rail carrier's overall return from transportation services exceeds a normal return has prima facie evidence that the carrier has somewhere abused its dominant position.

Another test would be to determine whether shippers in fact have different elasticities of demand for transportation services. The rational for differential rail pricing is that different shippers have different willingness/ability to pay (demand elasticities). It has been taken for granted that such differences exist. However, as will be discussed later, it is not clear that this is necessarily the case today. Over the last half century, the rail industry has lost many shippers to trucking, and today is focused on bulk commodities and intermodal traffic. While many would argue that significant differences continue to exist in price elasticities of demand for rail service, it may be that shippers today have similar elasticities. If this were the case, then differential pricing would not be justified on economic efficiency grounds – all shippers should be charged similar mark-ups over costs. Conversely, rail carriers need to do more than establish the inelasticity of a shipper's demand for rail services as a justification for high mark-ups. The carriers must also establish that there are other shippers with significantly greater elasticities.

3.0 The Evolution of Canadian Rail Policy

3.1 Introduction

Modern government policy towards freight rail, and transport in general, has been defined by three major Transportation Acts in 1967, 1987 and 1996. These successive Acts represent a transition in government policy from heavy regulation and government control to free competition with light regulation, resulting in a resurgence of the Canadian railway industry.

3.2 Transportation Policy before 1967

Prior to 1967, government involvement in rail was often influenced by non-transport concerns rather than the interests of the railways. In the 19th century, the railways were used as a powerful bargaining chip in bringing certain provinces into Confederation. Later, the railways were used in encouraging immigration and settlement, and supporting industry and agriculture. The original building of the railways was often carried out by private companies with incentives, such as land grants and guaranteed loans as well as cash, provided by the government.

The rapid growth of the railways with monopoly power over transportation led to the creation of the Board of Railway Commissioners in 1903, which assumed responsibility for the setting of railway freight tariffs and overseeing level of service.[18] The bankruptcy of a number of railway companies in the early 20th century also led the government to nationalize and merge these companies into Canadian National Railways (CNR), created in 1922.

Early Canadian rail policy was driven by political and social concerns.

The post World War II period saw the privately owned Canadian Pacific Railway (CPR) and the government-owned CNR under heavy regulation, subject to political whim, with demand-based pricing playing little part in rail freight rates.[19] At the same time, the railways faced increased competition for freight traffic (bulk commodities, general goods, mail, etc.) from other modes:

- trucking, aided by heavy public investment in the highway network;
- oil and gas pipelines;

[18] This later became the Board of Transport Commissioners with jurisdiction over the fledgling airline industry.

[19] Although a number of short line rail operators existed, CPR and CNR, the only Class I operators in Canada, dominated the rail industry – a situation that continues to this day.

- marine transport, aided by the construction of the St. Lawrence Seaway, at public expense, which diverted bulk traffic to water carriers;

- air transport, aided by growing capabilities of aircraft as well as public investment in airports and other infrastructure as well as a secure revenue base from carrying mail.

The heavy regulation placed on the railways was technical, slow, and heavily focused on the rail monopoly, and gave them little freedom to respond to traffic losses to other modes of transportation. The 1950s saw the financial performance of the railways steadily deteriorate. In 1958, the railways applied to the Board of Transport Commissioners for a 19 per cent rate increase. The government's response was to authorize an eight per cent rate increase and then to enact a rate freeze. This was accompanied by the payment of general subsidies to the railways to compensate them for their higher costs under the *Freight Rates Reduction Act* of 1959. The general subsidies paid were massive, totalling $506 million from 1959 to 1968 when they were terminated.

Heavy regulation prevented railways from responding to traffic losses to other modes of transport.

3.3 National Transportation Act of 1967

Recognizing that the current situation was untenable, the government set up a Royal Commission on Transportation that came to be known as the MacPherson Commission after the name of its Chairman. The commission sat from 1959 to 1961 and concluded that the railways were no longer monopolies, and needed to address the increased competition from other modes, particularly trucking. As a result of this competition, the railways could no longer afford to cross-subsidize uneconomic services, and it was this drain that was the root cause of the railways' financial problems.

The recommendations of the MacPherson Commission were largely adopted in the *National Transportation Act* of 1967. This Act represented the first formal statement of an all-embracing policy derived from a transportation perspective rather than from other national and regional interests. The Act allowed almost free competition between modes though held back from introducing serious competition within modes. The railways were free to set rates within a broad range without the need for regulatory approval, implicitly recognizing that demand-based pricing was essential to the financial health of the industry. Reflecting the lack of intramodal competition, railways were able to engage in collective rate-making and all rate and cost information had to be made available to the public, including competitors.

The 1967 *National Transportation Act* promoted *intermodal* competition.

Regulation of transport was now the responsibility of the newly created Canadian Transport Commission (CTC). A shipper dissatisfied with the rate offered by a railway

could apply to the CTC to determine a maximum rate.[20] Likewise, the CTC could step in to deal with disputes over levels of service, over which it still had considerable authority.

The CTC had powers to allow one rail carrier to operate on another carrier's track (running rights) and compel the interswitching of traffic from one carrier to another if a shipper requested it, within certain criteria. The CTC was also required to carry out research on policy issues, paving the way for further transport policy development.

The Act provided for subsidies to railways to compensate them for operating loss-making services that the government deemed essential services. The Canadian railways were further reprieved from their social obligations by the 1983 *Western Grain Transportation Act* which abolished the tariff controls on grain transportation originally set in the 1897 Crow's Nest Agreement, and provided subsidies to the railways for these services, where necessary.[21]

The 1967 Act left the barriers to entry fairly high – potential operators, as before the Act, had to prove "public convenience and necessity." In essence, the entrant has to prove that there is sufficient demand in the market to support an additional operator. This requirement aims to prevent services being disrupted due to operators entering and leaving the market; however, it also gives protection to the incumbents and dilutes the effect of market forces. In a similar way, service abandonment was subject to a lengthy and restrictive CTC approval process. The 1967 Act also contained a provision intended to provide a formal mechanism for dealing with both rate and/or service disputes which affect issues of broader "public interest". With certain exceptions any person or organization could apply to the Canadian Transportation Commission for relief from an act, rate charged or omission by a carrier which may prejudicially affect the public interest.

The Act did go a long way to improving the financial positions of the railways and enabling them to make capital investments; however, shippers complained that railways could, in essence, collude on tariffs and that further intramodal competition was needed.[22] Several studies of the productivity of the Canadian railways noted the substantial improvement in rail carrier productivity (it roughly doubled) with the changes brought on the advent of the 1967 Act.[23]

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[20] However, it should be noted that the maximum rate was established at 250% of costs, and thus some would argue that there effectively was no maximum rate.

[21] The grain transportation services were not addressed in the 1967 National Transportation Act.

[22] It might be noted that in 1970s there were attempts to roll back a number of the provisions of the 1967 Act, but these efforts dissipated as the majority of shippers were satisfied with the new regime relative to the rates they had to pay earlier.

[23] See K.D. Freeman, T.H. Oum, M.W. Tretheway and W.G. Waters II (1987), *The Growth and Performance of the Canadian Transcontinental Railways: 1956-1981,* Centre for Transport Studies, University of British Columbia. Also see D.W. Caves, L.R. Christensen, J.A. Swanson and M.W. Tretheway (1982), "Economic Performance of U.S. and Canadian Railroads: The significance of ownership and the regulatory environment," in W.T. Stanbury and F. Thompson, eds., *Managing Public Enterprise,* Praeger.

3.4 National Transportation Act of 1987

In addition to continuing complaints from shippers, the passage of the *Staggers Act* of 1980 in the United States increased the need for a new legislative framework in Canada.[24] The *Staggers Act* freed the railways in the U.S. from heavy regulation giving them a competitive advantage over their Canadian counterparts. The success of the 1967 Canadian rail policy was the model used for the new U.S. policy, but by incorporating the ability to shed low utilisation track and other reforms, the U.S. policy went beyond that in Canada -- the U.S. not only caught up to Canada in terms of rail policy, it leapfrogged Canada.

The 1987 *National Transportation Act* promoted *intramodal* competition.

In 1985, the government issued a discussion paper called *Freedom to Move*, which formed the basis for a series of hearings by the Standing Committee on Transport and finally the *National Transportation Act* of 1987. This Act expanded the role of the market to include intramodal competition and marked a further step towards commercialization.

Collective rate-making was abolished, as was the sharing of cost information, and railways were permitted to enter into confidential contracts with shippers.[25] This resulted in significant rate reductions as shippers could now play one railway against another and could lock in rates for a period of time. Confidential contracts can be seen as a double-edged sword, however, as they do lead to differential pricing. Confidential contracts facilitate rail carriers' ability to charge different rates to different shippers based on their demand elasticity or ability to pay. Some shippers, and other groups, have viewed this result as discriminatory and unfair. Their view is that the "excessive" charges some shippers pay to "monopoly" rail providers effectively "cross-subsidize" the rates of shippers enjoying intermodal and/or intramodal competition. The rail carriers have responded that differential pricing is commonplace even in clearly competitive markets (e.g., the airline industry) and necessary for the financial viability of the railways.

The Act also provided new or enhanced provisions to introduce further competitive forces:

- **Interswitching**. Shippers in urban areas served by only one railway could request from the National Transportation Agency (or NTA, the successor to the CTC), a rate to ship on that railway to an interchange point where it could be transferred onto another rail carrier as long that interchange point is within 30 kilometres of the shipper. This provision allowed the shipper access to an alternative rail carrier even if that rail carrier

[24] It should be noted, that in the period prior to the *Staggers Act*, when US rail carriers were either bankrupt or languishing, The 1967 *Canadian Transportation Act* was put forth in the U.S. as an exemplar for a regulatory regime which served shippers and strengthened rail carriers.

[25] Rail carriers were still required to publish set of (non-discriminatory) rates which did not need the approval of the regulator, however carriers and shippers were now free to negotiate their own rates, which inevitably would be lower than the published rates. The published rates could vary by product and service but not by shipper.

did not directly serve it. This provision was already provided in the 1967 Act, but the distance restriction was limited to only 6.4 kilometres.

- **Competitive Line Rates**. A new provision in the 1987 Act, a shipper outside the 30 kilometre interswitching limit could negotiate a rate with the rail carrier to which it is captive to move goods along that carrier's line to an interchange with another rail carrier. If a rate could not be negotiated, the NTA could impose one.

The 1987 Act had three important pro-competitive provisions:

- **Interswitching;**
- **Competitive Line Rates; and**
- **Final Offer Arbitration.**

- **Dispute Resolution (Final Offer Arbitration (FOA), Mediation, Public Interest Investigations)**. The 1987 Act simplified dispute resolution between shippers and rail carrier, while leaving as much initiative as possible to the parties concerned to reach a solution. Introduced in the 1987 Act, FOA required that, in a dispute, both the shipper and carrier submit a final offer to an arbitrator. This arbitrator had to choose either the shipper's offer or the carrier's offer, and could not propose any intermediate or compromise position. The decision was binding.

Unless the parties agreed otherwise the arbitrator was to consider if there was available to the shipper an alternative, effective, adequate and competitive means of transporting the goods. The FOA process encouraged the parties to fully attempt to settle through negotiation before resorting to an arbitrator, and if they did go to arbitration, to discipline the parties to advanced tempered final offers. Any party's offer that was seen as extreme stood a greater likelihood of not being selected by the arbitrator. In addition to FOA, the "public interest" provision from the 1967 Act was brought forward with some revision to "address concerns of captive shippers."

- **Reduced Regulatory Barriers to Entry.** The barriers to entry were lowered considerably. Whereas previously, potential entrants had to demonstrate "public convenience and necessity" in order to enter rail market, they now only had to prove that they were "fit, willing and able" to provide a service. That is, the company has the facilities and skills to provide the service safely and reliably and they have resources to start up an operation.

Service abandonment was also streamlined, recognizing that the railways have been burdened by excess capacity since the 1920s, due largely to non-commercial reasons. The 1987 Act gave the carriers more freedom in abandoning services with the restriction that the railway could not abandon more than 4% of its total trackage in one year. The process was still subject to approval by the NTA though the process was faster than previously. The Act allowed for one railway to take over a service that another carrier wished to abandon and retained subsidies for essential services.

The impact of economic deregulation under the Act was to substantially reduce freight rates – between 1988 and 1999 average freight rates declined by 26% in real terms.[26] However, this lowering of rates did not result in substantial growth in traffic volumes, with total tonne-kilometres growing by an average of 0.8% per annum between 1988 and 1999, well below the rate for overall industrial production. The 1980s and 1990s saw considerable rationalization of the railways – between 1981 and 1991, CNR and CPR reduced their workforce by 44% and 35% respectively.[27] Both companies also took advantage of the service abandonment provisions in the 1987 Act; however, neither company fully utilized their 4% per annum limits in any of the five years following the Act. This rationalization, along with productivity improvements, meant that despite sluggish revenue growth the profitability of the railways improved considerably.

The 1987 Act led to a 26% reduction in real rates during the following decade, though it did not lead to substantial growth in traffic volumes.

3.5 Canada Transportation Act of 1996

The 1990s saw further commercialization of the Canadian railways, part of which was in response to the commercial opportunities and threats arising from the NAFTA accord signed in 1994. In 1995, CN rail was privatized through a public share offering and in the same year the government repealed the *Western Grain Transportation Act* terminating subsidy payments for grain transportation services and allowing rate increases for grain freight.[28]

This was followed by the *Canada Transportation Act* of 1996. The 1996 Act focused mainly on operational issues, most significantly giving railways greater latitude to rationalize their physical infrastructure. Railways are required to offer the lines they wished to abandon to other short line operators or, failing that, to various levels of government. If no takers were found, the line could be abandoned. In essence the railways were free to abandon lines on a purely commercial basis, while short line operators were encouraged to take up abandoned services. The regulatory agency was restructured and renamed the Canadian Transportation Agency, and the Public Interest Investigations were repealed. The Act also removed oversight for rail industry acquisitions from the purview of the Agency, leaving it wholly in the domain of the *Competition Act* review process. The Act also required that a shipper must establish "substantial commercial harm would result if relief were not granted" before a case against a carrier could proceed. Between this Act

With the streamlining of rail abandonment, CN and CP rationalized their systems, dropping to less than 2/3 of Canada's rail trackage from 89% in the early 1990s.

[26] *Vision and Balance*, Report of the Canada Transportation Act Review Panel, 2001.

[27] *Competition in Transportation*, National Transportation Act Review Commission, 1993.

[28] The sharp rise in grain rates led to government imposing a revenue cap on the railways in 2000.

and the repeal of the *Western Grain Transportation Act*, government subsidies to rail freight were effectively ended.

Relaxation of line abandonment substantially changed the makeup of the rail network and considerably improved the financial health of the rail industry. By 2000, CNR and CPR accounted for less than two-thirds of rail trackage in Canada, down from 89% in the early 1990s.[29] Between 1996 and 1999 more than 8,500 kms of rail line abandoned by CPR and CNR were transferred to short line operators – over 80% of abandoned trackage.[30] The ability of the railways to discontinue uneconomic operations, combined with the ability to negotiate confidential contracts, has enabled the railways to make capital investments deferred when the 1987 Act was in place. From 1987 to 1996 investment was actually less than the level needed to offset depreciation. In the years following the 1996 Act, investment has exceeded depreciation by over half a billion dollars in 2001 prices.

The *Canada Transportation Act* streamlined rail abandonment and, along with the repeal of the *Western Grain Transportation Act* marked the end of rail *freight* subsidization.

The 1996 Act mandated that a comprehensive review of transportation policy be carried out; this was done in 2000/01 and findings published in the document *Vision and Balance: Report of the Canada Transportation Act Review Panel*, published in June 2001. In regards to rail freight, the review concluded that the system was considerably more efficient, competitive and vigorous than 30 or 40 years ago. Based on the level of railway profits, generally declining freight rates, productivity improvements, comparison with other international jurisdictions and other factors, the review concluded that Canada's rail system is not inherently anti-competitive, nor is market abuse systematic or widespread.[31]

The review did acknowledge, as some shippers have argued, that there may be some markets where "competitive forces are not effective." Concerning intermodal competition, data collected in the review suggested that the amount of rail traffic contestable by truck is limited due to geographic location. The review stated that "it may be technically feasible to move half the rail freight by truck, but this does not mean that trucking would is a cost-effective alternative…". Regarding intramodal competition the review estimated that, at a minimum, about 40% of Canadian rail traffic has access to direct rail competition (i.e., traffic that originates and terminates within 30 kilometres of an interswitching point).

[29] Ibid., footnotes 26 and 27.

[30] Railway Association of Canada website: www.railcan.ca

[31] The rate of return of capital employed was approximately 15% at both CNR and CPR in 2000; with the exception of grain, freight rates have remained static or declined in the 1990s; rail productivity has risen nearly 50% in the last decade.

4.0 Rail Policy in the Other North American Jurisdictions

4.1 Introduction

Given the increasingly integrated North American economy under NAFTA, and the continentalization of "Canadian" and "U.S." rail carriers, any consideration of Canada's competitive framework needs to consider the situation in the U.S. and Mexico. A Canadian framework designed solely from the perspective of the domestic market runs the risk of impeding the access of Canadian shippers and railways to key U.S. markets, and to a lesser extent, the Mexican market.

While rail policy developments in other nations might shed some interesting light on our issues, rail policy in the U.S in particular will directly affect our railways and shippers.

4.2 The Beginnings of Regulation in the U.S.

The first federal regulatory legislation relating to rail in the US was the *Interstate Commerce Act of 1887*, although the federal government (as well as state governments) had been involved in the development of the railroads since the 1820s. In the 1830s to 1880s, railroads had been over-built in many areas of the country, especially the Northeast, due to financial speculation and the lure of government subsidies and land grants. This resulted in rate wars in some areas of the country where rates fell to unprofitable levels, to which rail companies responded by attempting, largely unsuccessfully, to form cartels and collude on rates. In other areas of the country, monopoly railroads were able to charge excessive rates.

In order to regulate rail rates and services and stabilize the rail market, the *Interstate Commerce Act* was passed by the federal government. The Act provided that rates should be "reasonable and just"; discriminatory or preferential rates were prohibited as was the practice of charging more for short haul than longer haul service; the pooling of traffic was barred and all rates were to be public with no confidential contracts allowed. The Act also established the Interstate Commerce Commission (ICC) to oversee and enforce the regulation; similar to the Board of Railway Commissioners set up in Canada in 1903. It should be noted that "reasonable and just" did not mean economic efficiency, and was largely based on political not economic considerations.

A number of acts followed this Act to close loopholes discovered in the 1887 Act and to enhance the power of the ICC:

- The *Elkins Act of 1903* stated punishments for discriminatory pricing.
- The *Hepburn Act of 1906* gave the ICC the right is set maximum rates and gave the ICC jurisdiction over pipelines and express companies.

- The *Mann-Elkins Act of 1910* closed loopholes regarding the long haul/short haul clause.

- The *Transportation Act of 1920* allowed the ICC to set minimum (as well as maximum) rates, further reducing the scope for competitive practices, and took over control of market entry and exit from the states. This Act also gave the ICC the right to promote mergers where it believed railroads were too weak to survive on their own, and the ability to provided direct subsidies in the form of guaranteed loans.[32]

The cumulative result of these acts was to give the ICC, and so the government, strong control over the rail industry. While the rail companies themselves were private, the ICC was responsible for setting rates; regulating level of service and determining which routes were operated.[33] The ICC ensured steady profits for the rail companies, while maintaining high barriers to entry through the "public convenience and necessity" criteria and prevented lines from closing even when they were clearly unprofitable.

The Interstate Commerce Commission had strong control over the U.S. rail industry, from rates to level of service to routes. It also controlled trucking and some barge transportation.

The ICC's powers were further enhanced by the *Motor Carrier Act in 1935*, which gave it control over trucking rates and entry, the *Transportation Act of 1940,* which gave it regulatory power over some barge transportation, and the *Reed-Bullwinkle Act of 1948*, which allowed rate bureaus for rail and truck to collude on rate setting.

4.3 The Move Towards Deregulation

The 1950s should have seen steady profits for the railroads, protected from damaging competition within rail and from trucking by the ICC. However, the railroads found themselves loosing market share and profits to the trucking industry. Trucking proved to be a more flexible, faster and reliable form of transportation than rail as the highway system was rapidly developed after the World War II.

Rail suffered particularly in the transportation of high value goods, as they tended to be more prone to damage if transported by rail. The rail carriers tried to counter this threat by lower rates but were largely prevented from doing so by the ICC which wanted to avoid a rate war that might undermine the profitability of trucking.

Competition from trucking, and ICC reluctance to allow railways to respond led to a serious decline in the industry's viability.

In the mid-1950s, as their finances continued to deteriorate, the railroads started to lobby

[32] In fact, the ICC had the power to approve mergers, superseding existing antitrust laws.

[33] The federal government nationalized the railways during World War I, then re-privatized them after the war.

for more rate-making freedom. The result was the *Transportation Act of 1958* which allowed the rail carriers some determination in setting rates, as well as allowing carriers to discontinue certain loss-making passenger services and providing further subsidization in the form of guaranteed loans. [34] These provisions were subject to approval by the ICC, which in many cases refused requests to reduce rates or terminate passenger services. The 1960s and 1970s saw further deterioration in rail finances, with some relief provided by the creation of Amtrak, a government-owned company which took over the heavy loss-making passenger services from the rail companies in 1971.[35]

In 1973 the Penn Central Transportation Company (a merger of the Pennsylvania and New York Central railroads) had been bankrupt for three years and was running out of cash to meet its payroll and suffering from severe physical neglect. Faced with the failure of the company and the attendant loss of services and jobs, the government decided to nationalize the company and rename it Conrail, in the *Regional Rail Reorganisation Act of 1973*.

Regulatory changes to give some pricing flexibility failed to help. The bankrupt Penn Central was nationalized, but the problems extended far beyond one railroad.

By 1976, it was apparent that the problems with the railroads went far beyond Conrail, with many other rail companies facing bankruptcy. At the same time Conrail was requiring huge levels of government assistance ($4 billion between 1976 and 1981).[36] The government's response was the *Railroad Revitalisation and Regulatory Reform Act in 1976*. This act had two aims – provide new government subsides and reform regulation. Railroads were given greater freedom in running their operations:

- No rate above variable costs should be considered unreasonable unless someone contested it.
- Where the ICC found types of traffic where rail had no monopoly, it should eliminate regulation.
- The ICC should consider the financial health of the rail industry – those companies not earning a compensatory return on investment should be allowed to raise rates.
- Rail firms found to not have "market dominance" were allowed to move rates up or down within a defined "reasonable" range without federal approval.
- Railways could not be forced to operate a service on which it lost money and so could pursue abandonment.

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[34] As in Canada, passenger services had long been a drain on railway finances and were cross-subsidized by profits from freight.

[35] The government of Canada took similar action in 1977, when it created the Crown Corporation VIA Rail which took over the passengers services of CNR and CPR.

[36] *Railroads, Freight and Public Policy*, T. E. Keeler, 1983, The Brookings Institute.

In essence the 1976 Act recognized, as the 1967 *National Transportation Act* had done in Canada, that the rail industry was no longer profitable enough to cross-subsidize money-losing services. However, much of the Act's intent was weakened by the interpretations of the ICC which argued, successfully upheld in court, that anywhere the industry has the discretionary power to raise rates in this way, it has dominance. Follow up studies mandated by the 1976 Act concluded that the railroads were in worse shape than ever, with considerable capital investment required and further commercialization needed.

4.4 The Staggers Act of 1980

The recommendations of the follow up studies were backed up by the results of the deregulation of the domestic air market in 1978, which was generally regarded to have resulted in lower fares and improved service. The year 1980 saw the passing of two radical pieces of legislation – the *Staggers Act* deregulating the rail industry and the *Motor Carrier Act* deregulating the trucking industry.

The *Staggers Act* was based on the premise that the rail industry was no longer a monopoly, facing competition from trucking and other modes, and that prevailing regulation was preventing the industry from competing and earning adequate revenues. The Act stripped away many of the powers of the ICC and left the railways to operate as a commercial industry:

The *Staggers Act* deregulated the rail industry while the *Motor Carrier Act* deregulated the trucking industry, stripping away the powers of the ICC.

Rates. As with the 1976 Act, the *Staggers Act* stated that rail carriers were free to set prices except where the rail carrier had "market dominance." This time though, the Act set out the definition of market dominance, which the ICC was to follow. The ICC was given the option of exempting certain commodity groups from regulation where strong intermodal competition existed.[37] The Act also eliminated rate collusion and permitted the use of confidential contracts between rail carriers and shippers that were not subject to regulation. Rail carriers still had to publish a list of non-discriminatory rates but most rates were determined by confidential contracts.

Market Entry. The barriers to entry were set at a fairly low level. Entrants now had to prove fitness to operate rather than the more onerous "public convenience and necessity," with the presumption in favour of new entry or new line construction.

Service Abandonment. While service abandonment was still subject to ICC approval, the process was streamlined considerably, and greater consideration was given to the financial health of the rail carrier. The Act provided for the transfer of the service to another operator or payment of subsidies to operate "essential" services as alternatives to full abandonment.

[37] Almost as significant as the Act itself was the appointment, in the late 1970s, to the ICC of a number of pro-deregulation proponents, such as economists Darius Gaskins and Marcus Alexis.

Mergers. The ICC maintained approval authority over rail mergers but the proceedings were accelerated with the ICC considering the "public interest" served by the merger.[38]

Unlike the Canadian model, the *Staggers Act* did not provide for a dispute resolution process like Final Offer Arbitration introduced in Canada in 1987. Rather the ICC sets out "reasonable" rail rates in situations where there is an absence of competition.

It is fair to say that the impact of the *Staggers Act* was dramatic. The rail industry went through massive rationalization and reorganization. In 1980 there were 36 Class I carriers, by 2000 that number had been reduced to 8; and the amount of track owned by the Class I operators declined by 41%.[39] Much of the abandoned track was taken by short line and regional operators – since 1980, approximately 430 new short line and regional operators have been created (some of whom have since failed), accounting for 53,000 kms of owned track.

Average rail rates declined by 59% in real terms from 1981 to 2000 while the volume of freight has increased by over 60%, with rail managing to increase its share of traffic against trucking and other modes. The revenues of the railroads have declined as a result of the rate reductions, but due to massive gains in productivity the railroads have returned to profitability. This has allowed railroads to make capital investments - US$278 billion was spent by the Class I carriers alone between 1980 and 2000.

The *Staggers Act* led to massive rationalization and restructuring:

- **much of the abandoned track was picked up by short line operators;**
- **rates declined dramatically;**
- **volumes increased by 60%; and**
- **declines in revenue were more than offset by increased productivity, returning the railways to profitability.**

Since the *Staggers Act,* there has been little significant legislation relating to rail. In 1987, Conrail was privatized in a US$1.9 billion public share offering. In 1996, the ICC Termination Act shut down the ICC, and its rail regulatory power transferred to the newly created Surface Transportation Board (STB) with some adjustments to those powers. From a rail perspective, this Act largely reinforced the regulatory framework of the *Staggers Act* with minor changes.

Mirroring similar complaints in Canada, some U.S. shippers argue that the STB is overly focused on the well-being of the railroads at the expense of promoting competition and fair rail rates.

[38] With only two Class I carriers, Canada's rail legislation does not contain specific regulation regarding mergers.

[39] Statistics are from the Association of American Railroads.

4.5 Rail Policy in Mexico

Much of Mexico's rail network was built in late 1800s and early 1900s under the presidency of Pofirio Diaz. The Diaz regime initially undertook to promote railways directly or through subsidies to state governments, but the results were slow to appear. So after 1880, policy shifted to subsidizing private companies, partly in the form of land grants (as in the U.S. and Canada), which attracted substantial amounts of capital from Britain and the U.S. in particular. This private construction produced a rather disorganized rail network with many duplicated routes. In response, the government gradually attempted to consolidate companies and buy out part of their capital. The eventual result was a national railway system - Ferrocarriles Nacional de Mexico (FNM), formed in 1909 - with majority government ownership but continuing private participation from the U.S. and Britain.

The Diaz regime oversaw a period of considerable economic growth, but major social injustice which fuelled resentment toward the favouritism shown to major land owners and foreign investors. When Diaz refused to step down in 1910 as he had promised, it triggered the Mexican Revolution, which ended with the Institutional Revolutionary Party (PRI) taking power. Right up until the 1970s, the PRI nationalized many companies and industries in Mexico including the railways, which were nationalized in 1937.

In line with experiences in other parts of the world, the state ownership of FNM was not generally a success. Efficiency, service, reliability and hence competitiveness suffered as a result of political interference and the absence of market discipline. The safety and reliability of the system was adversely affected by years of under investment. Furthermore, cross-border trade was impeded by the reluctance of U.S. railways to send cars into Mexico due to the substantial risk they would be damaged, or not returned promptly or at all. Despite the generally poor quality of Mexico's roads, only 15% of inland freight was carried by rail in 1995.

Attempts by FNM to compete with trucking were hampered by heavy regulation – all tariff revisions had to be ratified by the government. By the 1980s, FNM was running up deficits exceeding US$600 million per year.

With the rail industry struggling under state ownership, the government started privatization in 1995.

In the 1980s, the PRI government, under a new presidency, radically changed their position on state-owned companies and started a program of privatization. In 1982, the government owned 1,200 companies including banks and telecommunications companies. By 1991, that number had been reduced to 70. The process of privatizing the railways was not started until 1995. By 1999, Mexico had sold off the rail system to private bidders, as seven separate companies responsible for different geographic sections of the network.

Each company was responsible for the operations and the infrastructure of their system, i.e. like Canada and the U.S.; the track infrastructure and train operations were *not* split

into separate companies (called vertical separation).[40] Along with privatization, a regulatory framework was set up to oversee the private rail companies. Primary regulatory responsibility falls to the Secretary of Communications and Transport (SCT), while some rates and competitive issues are given to the Federal Commission of Competition (CFC). The regulations can be summarized as follows:

Rates. The railways must register a set of non-discriminatory rates with the SCT, which the SCT (and sometimes the CFC) can review and revise if it receives a complaint from a shipper who can prove that no effective competition exists. These rates represent a maximum charge; shippers and railways are free to negotiate confidential contracts for rates below the published rate, which have generally become the norm.

Service Abandonment. A rail carrier can discontinue a service if it can show that the discontinuance is not contrary to a concession agreement, signed when the carrier was awarded the concession, and that the discontinuance will not affect communities which are isolated and have no other means of public transportation. Once the SCT has agreed to the abandonment, it can offer that service to an alternative company.

Market Entry/Access. The SCT can provide in the concession title that the successful rail carrier must provide trackage and haulage rights to other parties subject to certain conditions. Beyond this, the SCT does not appear to have the authority to grant or impose additional trackage or haulage rights.

The privatized, deregulated railways in Mexico broadly follow the models used in Canada and the US. Early evidence indicates that the deregulation process has improved railway performance. Opportunities arising from NAFTA has made the Mexican rail system attractive to foreign investors, resulting in significant capital investment (regulations state that foreign investors can own up to 49% of a rail carrier). Major carriers from both Canada and the U.S. now have stakes in the Mexican railways. However, the deregulated rail system is relative young, and it is still too soon to draw any conclusions regarding its success and future development.

[40] Vertical separation has been used by countries such the UK, Sweden and Australia during the restructuring and privatization of their railways. In the case of Sweden and Australia, the infrastructure company continued to be stated-owned.

5.0 A Competitive Framework for Canada's Rail Industry

5.1 Introduction

A new competitive framework for Canada's rail industry must reconcile two conflicting interests. Shippers, facing intense global competitive pressures with falling or, at best, stagnant prices, need reliable services and rates which allow them to maintain a competitive market position. Railways, as capital-intensive businesses, need reliable revenue bases to support their required capital investments and traffic to build densities on their lines.

Historically, Canada's transportation policy has been used to deal with rail competition issues.[41] As an illustration, rail competition in Canada recently underwent an intensive study and review under the auspices of the *Canada Transportation Act* Review (CTAR). This review was a thorough examination of the issues, and was the beneficiary of considerable input, consultation and debate. As a result, its findings may be viewed as generally sound, and although some "tweaking" is possible, and even desirable, the CTAR recommendations form a solid basis for a competitive framework for Canada's rail industry.

The CTAR, however, focused only on *transportation* policy – it did not incorporate consideration of the application of general *competition* policy within its frame of reference. As with most other industries, there is a potential opportunity to rely more on Canada's competition laws to deal with market power issues in the rail industry. There is also the opportunity to more fully consider broader types of economic considerations, such as dynamic efficiencies, wealth transfers, and effect of abuse of dominant position on innovation, that can be raised under a broader policy framework.

The analysis used to develop the framework outlined in Section 6 draws both upon Canada's extensive history of transportation regulation as well as the more recently expanding competition policy framework.

5.2 Current Transportation Policy

Since it is uneconomical to build duplicate rail lines to every possible shipper location, other methods must be pursued to provide competitive rail service or otherwise deal with imbalances in market power. Three broad approaches can be utilized:

[41] Here transportation regulation is used broadly to include elements that some might label as economic regulation, as well as issues more strictly related to transportation regulation. Rather than create two categories that might cause some confusion, we include regulations respecting foreign ownership, entry/exit, abandonment, pricing and service levels, rate setting mechanisms, dispute resolution and common carrier obligations transportation regulation.

Rates: The local railway is required to carry traffic of a shipper on its line to an interchange point with another railway at a regulated or negotiated rate. This uses rate regulation to enable a genuine competitive choice for the shipper.

Track Access: A "guest" railway is permitted to operate its trains over the tracks of another "host" railway. Access by the guest railway could be limited to carrying traffic only to the nearest interchange or unrestricted access along the lines of the host railway ("transit rights"). The right to pick up and drop off traffic along the line, might also be permitted ("traffic rights").

Dispute Resolution: Shippers have the ability to apply for a decision on a rate or service level requested if they cannot negotiate a desired level through normal commercial negotiations.

Under the current *Canada Transportation Act*, interswitching and competitive line rates are two rate access provisions whereas running rights provide track access. Final offer arbitration is the major dispute resolution provision currently available.

An effective framework for the future must include elements of all three transport policy mechanisms: rates, access, and dispute resolution.

5.2.1 Controls over differential pricing

Current Policy

There have been concerns expressed about the rail industry use of differential pricing, with some raising the possibility of controls over this practice.

Price discrimination is generally illegal under competition law.[42] However, Canadian regulatory and court jurisprudence recognizes that the existence of sector specific regulation overrides the application of general competition regulation. Thus although Canada's *Competition Act* prohibits what it refers to as price discrimination, this does not apply to rail transportation, which is governed by the *Canada Transportation Act.*

The provisions of the *Canada Transportation Act* reflect the view that rail economic efficiency arguments support the use of differential pricing. As a result, there are no provisions against this practice in the Canadian rail industry.

Other Approaches

The U.S. also allows price discrimination by rail carriers. However, it has a "jurisdictional threshold" of 1.8 as the revenue/cost ratio to challenge a rail rate. A revenue/cost ratio above 1.8 is not necessarily evidence of a captive shipper or abuse of dominant position –

[42] This report uses the terms differential pricing and price discrimination interchangeably. Some economists prefer to reserve the term price discrimination for cases of differential pricing when market power is present.

it merely represents the level that must exist before consideration will even be given to whether or not this is excessive.

Observations

Differential pricing has a long and well-established economic basis for industries characterized by economies of scale and/or indivisible fixed costs.[43] Indeed, pricing on this basis is necessary for the firm to be able to achieve full cost recovery. It should be noted, however, that the CTA Review discussed differential pricing and raised some possible limitations of that framework. They raise the possibility that

> *"…public interest considerations may call for limits on differential pricing….*

The reasons provided are as follows:

- the welfare foundations of rail differential pricing are not the same as those in the classic Ramsey argument;
- there may be public interest grounds for deviating from efficient prices;
- the cost structure is more complex than that presented in basic Ramsey models, and market power could distort the mark-ups;
- the Ramsey model presumes that rail operations are as efficient as possible; and
- there is the 'second best' problem that requiring full cost recovery for rail might not be optimal when we recognize that there is not full cost recovery on substitute modes." (CTA Review background note)

To this list, we add one more: the possibility that some regulatory mechanism (such as stimulating some competitive pressures via running rights) could lead to some *dynamic* efficiency gains that offset the *static* efficiency losses caused by interfering with Ramsey pricing.

The first reason points out that the classic Ramsey argument focused on final demand, whereas demand for rail service is an intermediate demand which not only reflects the underlying willingness to pay by buyers of rail service, but is also influenced by the presence or absence of competition in final markets. But while this may reduce some of the attractiveness of Ramsey pricing on welfare grounds, there is no easy way to modify

[43] There are several ways in which differential prices may be set. The set of differential prices which maximizes economic efficiency is referred to as Ramsey Pricing. It is also know as second best pricing, as first best pricing may require a subsidy to be paid to rail carriers. In the absence of a subsidy, second best prices maximize economic efficiency, subject to achieving break-even cost recovery.

the Ramsey pricing approach other than to contemplate replacing it entirely with a regulated and bureaucratically imposed rate structure. Such a structure might not be as desirable for individual shippers as the status quo.

The second reason stems from the fact that Ramsey pricing argument is one of efficiency. There can be legitimate *social* reasons for overriding economic efficiency criteria: issues of fairness or equity. The challenge is identifying what legitimate public interest or fairness criteria would call for regulatory intervention in rail rates. CTAR acknowledged this possibility but called for limiting intervention only to the most egregious cases of price mark-ups, ones that could be characterized as abuse of a dominant position. The CTAR explicitly rejected the notion that shippers paying more than average would constitute unreasonable pricing behaviour. Thus there is a need to set out criteria that could define unreasonable pricing behaviour *and* to design a regulatory intervention to deal with such cases. The challenge is that this must be done without undermining the normal operation of rail transportation markets.

In the days of detailed rate regulation (essentially prior to 1967 in Canada and prior to 1980 in the U.S.), virtually all rates could be challenged for various reasons.[44] But the result was a high cost, inefficient and relatively stagnant rail industry. Neither shippers nor carriers indicate any desire to go back to that era. CTAR called for a rail regulatory framework that would confine government intervention to a limited number of the most serious breaches of fairness. But the CTAR recommendations did not go beyond the concept; the details await further debate and legislative proposals. That is, there still needs to be some benchmark or trigger mechanism to bring regulation into play. The CTAR proposal was for the regulator to compare the rate in question with rates on similar movements, and regulatory intervention would be called for only if the rate in question was in the upper quartile or decile of the freight rates. The regulator has access to freight rate data that are not available to shippers that could be used for this purpose. The practicality of this approach has not been tested.

Stand Alone Costing Test. (SACT) The third reason for questioning Ramsey pricing raised by CTAR is that rail cost structures are more complex than those presented in a standard Ramsey model.

> *"The Ramsey argument presents constant costs as a common pool of costs to be covered by all traffic. This is a useful characterization for demonstrating the underlying economic logic, but in fact there is a complex overlay of categories of costs associated with different traffic, different regions, etc. The real pricing problem is far more complex than portrayed in the basic Ramsey model. The implication is that mark-ups imposed on one sector or region subject to market power might be 'taxed' to cover overhead costs actually associated with other traffic or regions…."*

[44] While detailed rate regulation ended with the 1967 Act, in practice carriers were allowed some degree of flexibility in the years immediately prior to the Act.

> *"…unrestrained differential pricing might not be appropriate in circumstances where some of the common overhead burden was not assignable to the traffic in question. We note here that the stand-alone cost (SAC) test would be a way to address this issue. The SAC is an estimate of the costs of a hypothetical efficient railway that might enter a market, including the ability to serve and obtain the mark-ups on any other traffic that could be served in conjunction with the particular shipper being priced." (*Ibid.)

SACT analysis would require extensive knowledge about costs, regional traffic patterns and revenue contributions, but it might be an avenue to explore in discussing revenue contributions by a region (but also keeping in mind that the rail network hundreds of kilometres away may be indispensable a region's economic well-being). The SAC has been the subject of extensive debate about how workable and costly it is, but it is a regulatory approach that has been applied in cases in the U.S.

The fourth reason stems from the observation made by CTAR that::

> *"…the Ramsey argument assumes that costs are minimized, that production is as efficient as possible. We acknowledge the railways' efficient performance; they set the standard to measure performance for railways around the world. At the same time, no one believes there are no inefficiencies left to be removed, or that input prices are always as low as possible (one might compare wage rates in the rail sector with those in other industries and wonder whether there are some rents being captured in this highly unionized industry). The implication is that current measured rates of return may not be as profitable as they could be." (*Ibid.)

Another related argument: in competitive industries firms sometimes make mistakes, and make investments that do not work out. The shareholders suffer the loss. Is it possible that there is market power in some rail markets that enable them to make a level of profit and pay for investments that in competitive industries would not be covered and would be borne by shareholders? But gathering evidence on this requires identifying poor railway investments and removing them from revenue requirements.

To incorporate this into a regulatory framework requires a legislative framework to authorize oversight of rail operational and investment decisions and the power to over-rule or 'second guess' rail decisions. The costs of such a regulatory apparatus must be weighed against the gains that could be expected.

The fifth reason stems from "second best" considerations. As CTAR noted:

> *"Finally, the Ramsey argument assumes that it is appropriate to recover the full costs associated with the company or industry. Another dilemma and set of issues in transportation is that there is not full cost recovery across all modes of transport. If the road and rail sectors are substitutes, and if the road sector does not achieve full cost recovery, does it*

> *necessarily follow that one should try to achieve full cost recovery from rail? The simple second best answer is 'not necessarily', but there are other issues of who should bear the costs of any financial shortfall. Even if it were decided that there were to be some subsidy for rail users, should these financial costs be borne by rail shareholders or taxpayers generally? The issue of differential taxation and subsidy is a separate issue that has to be addressed elsewhere." (*Ibid.)

Dynamic Efficiency Gains. The foregoing CTAR background discussion identifies possible ways that regulatory intervention might be sought to counter arguments for unrestrained Ramsey pricing. We add one more possibility. Ramsey pricing is a static efficiency argument. There is the possibility that a regulatory approach that could stimulate some competitive forces, such as some type of access by additional carriers, could give rise to innovation and dynamic efficiency gains that might offset the static efficiency losses of interfering with unrestrained Ramsey-type pricing by incumbent rail carriers.[45] At the moment this is speculation because it has not been researched or tested. Bitzan concluded that multiple carriers on a line would increase costs. One would want some evidence or convincing argument that dynamic competitive gains of increased competition would offset losses inherent with multiple operators and/or efficiency losses by restricting differential pricing.

An important aside here is that Canada's *Competition Act* currently deals with static efficiencies. In the recent case of *The Commissioner of Competition v. Superior Propane*, the Commissioner's arguments raised broader dynamic efficiency issues that need to be considered beyond the current static efficiency focus.[46] The Tribunal, however, focused on the deadweight loss (a static efficiency concept). The Commissioner appealed its decision to the Court of Appeal. The Court of Appeal found that the static "total surplus standard" adopted by the Tribunal did not reflect the different objectives of the *Competition Act,* and directed the Tribunal to consider a more flexible standard. After a new negative decision by the Tribunal the Commissioner again appealed. The 31 January 2003 rejection of the second appeal illustrates the continuing difficulties inherent in the current *Competition Act* to deal with these broader issues.[47] Nevertheless, since the Court directed (and the Tribunal considered) issues such as the loss of potential dynamic efficient gains, the case has raised this important issue in the development of competition jurisprudence. In addition, there is a possibility that legislative amendments will be sought that would broaden and clarify the scope of issues that would be considered in such cases.

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[45] Static efficiency takes a picture of the economy at a point in time, and finds the most efficient set of prices and quantities. Dynamic efficiency considers how, as new technologies are introduced and innovations in production are implemented, productive efficiency can be increased. It recognizes that regulatory policy can influence the state of technology, and thus what constitutes economic efficiency.

[46] While the case dealt with a merger, there are implications for alleged cases of abuse of dominant position.

[47] Federal Court of Canada, Docket A-219-02. The Court ruled that the Tribunal's redetermination did in fact follow the Court's directions. The Court had not specified a methodology that had to be followed, and although the Commissioner felt the Tribunal's redetermination lacking, the Court considered the approach followed was sufficiently broad as to accommodate the desired effects, included dynamic efficiencies.

A broader, and more clear, treatment of dynamic efficiencies could thus be incorporated in the *Competition Act*, and could thus affect the rail industry should a competition policy framework be adopted for rail. Alternatively, this broader treatment could also potentially be reflected by a parallel amendment of the *Canada Transportation Act* to explicitly incorporate dynamic efficiency arguments. Stakeholders may wish to monitor legislative amendments to the *Competition Act* for potential inclusion in the *Canada Transportation Act*.

As a final comment, it should also be noted that differential pricing does have some dynamic features in it, specifically incentives to improve service and/or cut costs to increase profitability. There is risk of losing some of these incentives in regulated systems.

5.2.2 Interswitching

Current Policy

A shipper, with access to only one railway at the origin or destination, can have the shipment transferred to another carrier at prescribed rates if the origin or destination is within a 30-kilometre radius of the interchange point.[48] No formal application process is required to use this provision. The Agency prescribes maximum interswitching rates for car block sizes and distance zones, up to a distance of 30-kilometres. The rates have been set to cover the average variable cost of performing interswitching, plus a 7.5% contribution to railway fixed costs.

Some 150,000 railcars are interswitched annually between CN and CPR lines.[49] It is estimated that two-fifths of Canadian rail traffic has access to an interchange within this 30-kilometre radius.[50]

The 30-kilometre limit may be extended by the Agency if it deems the interchange point to be "reasonably close" or if it prescribes a greater distance.

Other Approaches

The statutory provisions governing interswitching in Canada and the United States are similar. In the United States, the STB may require railways to enter into reciprocal switching agreements where it finds them to be practicable and in the public interest or necessary to provide competitive rail service. If the railways cannot agree upon the conditions and compensation, the STB may establish them.

However, the STB, and its predecessor the ICC, have not exercised their powers to force interswitching on railways in any significant way. The view has been that their mandate

[48] Sections 111, 127 and 128 of the CTA deal with interswitching.

[49] Number quoted in WESTAC Briefing "Understanding Competitive Rail Access", February 20, 2001.

[50] Notes on the Evidence About Competition in the Rail Freight Sector, CTAR, June, 2001.

was to focus on correcting abuses of market power rather than on restructuring the industry.

Similar interswitching provisions are not required in several other countries given very different industry structures, some with open track access.

Observations

Interswitching has been an accepted regulatory mechanism for many years. It was originally introduced as a measure to avoid overbuilding of railway lines, especially in congested urban areas. The original radius was four miles to an interchange. In 1987, the distance was increased to 30-kilometres. This represented a significant policy shift towards making interswitching a competitive access tool as well.

Some shippers have called for expanded interswitching limits, although other measures are in place for short-haul rates beyond the 30 kilometre distance. CTAR considered these issues and made two major recommendations:

- existing interswitching limits be retained (Recommendation 5.3)
- section 128 of the Act, requiring the Canadian Transportation Agency to determine fixed interswitching rates, be amended to allow the Agency to prescribe maximum rates, leaving it open to shippers and railways to enter into commercial arrangements for lower interswitching rates, if appropriate. (Recommendation 5.4)

Shippers and other key stakeholders may wish to support both these recommendations.

5.2.3 Competitive Line Rates

Current Policy

A shipper located outside the 30-kilometre interswitching limit can apply to the Agency to establish a Competitive Line Rate (CLR) for moving goods over the originating railway to an interchange point.[51] Several preconditions apply before a CLR may be requested:

- the shipper must first have an agreement with the connecting carrier;
- a CLR cannot be used at both the origin and destination; and
- it cannot apply on more than 50% of the total route or 1,200 kilometres, whichever is greater.

[51] Sections 129-136 of the CTA deal with competitive line rates.

A CLR is generally set for one year. It is based on a combination of the applicable interswitching rates and the revenue the railway generates in moving the same or substantially similar commodities over similar distances.

Since being introduced in 1988, they have been used sparingly. Between 1988 and 1992, five CLRs were established, all for access to mainline railways in the United States (four to the same shipper). No requests for CLRs have been filed under the new CTA in 1996.

Other Approaches

There is no CLR equivalent in the United States. In 1996, several coal shipping utilities initiated an action where the shippers attempted to force a railway for which they were captive, (referred to as the "bottleneck carrier") to provide a short-haul rate to an interchange point with another railway. The STB decided that railroads should not have to short-haul themselves. This decision was affirmed by the United States Court of Appeals in 1999 but remains one of the most contentious rail issues in that country.

Observations

As previously mentioned, the use of CLRs in Canada has been used on only a few occasions. The view of many shippers is that CN and CP have refused to compete for this type of traffic. It is also believed that U.S. railways, in a more tightly integrated continental rail system, would be unlikely to compete for this type of traffic as well.

The current CLR provisions have been criticized because of the following requirements:

- obtaining an agreement with a connecting carrier prior to requesting a CLR;
- proving substantial commercial harm if the remedy was not granted,[52] and
- a rate established by the Agency must be commercially fair and reasonable.[53]

A coalition of Western Canadian shippers recommended replacing CLRs with a new Competitive Access Rate (CAR). The originating and connecting railways would be able to compete at the interchange for the traffic over the long haul. The shipper would have the option to choose the carrier and routing. The rate would be based on the existing interswitching rate for the first 30 kilometres, plus an additional amount based on the railway's system average revenue per tonne kilometre for that specific commodity.

The CAR proposal was attractive from several perspectives. It could potentially significantly increase competition by eliminating the preconditions noted above. It would have broad application since it would be available to any shipper served by only one railway. Furthermore, the rate setting mechanism was simple.

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[52] This requirement is contained in Section 27 of the CTA. It is addressed specifically later in this report.

[53] This requirement is contained in Section 112 of the CTA. It is addressed specifically later in this report.

CTAR considered the CAR proposal as well as several other recommendations. It concluded that the "risks of adopting CAR as proposed were too high – it would undermine a commercial rail market and lead to the substantial adoption of regulated rates based on average revenues."[54] They considered this broad provision inconsistent with the goal of providing remedies only where warranted by inadequate market forces. They also determined that, since the CAR is based on system average revenues, successive applications would have the effect of driving down rates, potentially to the point of affecting railway viability.

In its place, CTAR recommended transforming the competitive line rate provisions of the Canada Transportation Act into competitive connection rate (CCR) provisions by:

- removing the requirement that shippers obtain an agreement with a connecting carrier before requesting the rate from the Canadian Transportation Agency;
- making the remedy available only to shippers with no "alternative, effective, adequate and competitive" means of transporting the goods that would be subject to the rate and where the Agency determines that the rate is substantially above rates paid by other shippers of the specific commodity under similar conditions and that cannot be explained by apparent cost and value of service considerations;
- requiring the shipper and the railway to attempt to negotiate a new rate within a 30-day period after the Agency determines that a CCR is required;
- requiring the Agency, where the shipper and carrier do not agree on the rate, to establish a CCR, subject to the commercially fair and reasonable test of section 112, with the rate falling in the range of the 75th percentile to the 90th percentile of revenue per tonne-kilometre for movements of the same commodity over similar distances and under the same conditions and levels of service as the CCR portion, together with the interswitching rate for the first 30 kilometres;
- allowing for a CCR to be established by the Agency for a period of one year;
- prohibiting the shipper from requesting final offer arbitration of any rate being reviewed or established under the CCR process;
- prohibiting the shipper from requesting final offer arbitration for the portion of the movement by the connecting carrier;
- prohibiting the shipper from requesting a CCR for a rate established by final offer arbitration; and
- giving the Governor in Council authority to suspend the CCR provision if it determines that railway viability is seriously affected by the operation of the CCR provision. (Recommendation 5.5)

[54] Page 66 of Canada Transportation Act Review final report.

The CTAR recommendations would facilitate a more competitive rail environment, with the exception of:

> *making the remedy available only to shippers with no "alternative, effective, adequate and competitive" means of transporting the goods that would be subject to the rate and where the Agency determines that the rate is substantially above rates paid by other shippers of the specific commodity under similar conditions and that cannot be explained by apparent cost and value of service considerations*.

This requirement would represent a new potentially significant barrier to the CCR being used by shippers, similar to the "substantial commercial harm" test, although the CTAR observed that arbitrators indicated this standard would work in practice.

5.2.4 Running Rights

Current Policy

Where a commercial agreement cannot be negotiated, a federally regulated railway (including US-based railroads operating in Canada) may apply to the Agency for running rights. The running rights are to be granted if the applicant can prove it is in the public interest to do so.[55] The Agency may impose any condition on either railway and may set the rates if they cannot agree.

No running rights have been granted by the Agency or its predecessor, the National Transportation Agency, since 1988. Three requests were filed in 1991: two were rejected on jurisdictional grounds while the third was withdrawn before a decision was rendered. In 2001, a few other applications were filed:

- Ferroequus Railway Company Limited to run over the lines of the Canadian National Railway Company and to pick up and deliver traffic from North Battleford, Saskatchewan to Prince Rupert, British Columbia.
- Hudson Bay Railway Company to run over the lines of and to pick up and deliver traffic along the lines of the Canadian National Railway Company in Saskatchewan and Manitoba.
- Ferroequus Railway Company Limited to run over the lines of the Canadian National Railway Company between Lloydminster, Saskatchewan and Prince Rupert, British Columbia and between Camrose, Alberta and Prince Rupert, British Columbia.

The first two applications were dismissed because the Agency did not believe the CTA currently grants the Agency the power to provide traffic rights to a "guest" railway. In the last case, the Agency concluded that there was "no convincing evidence that there is any prevailing public interest need in terms of existing railways rates or services for the

[55] Section 138 of the CTA deals with running rights.

imposition of running rights in this case."[56] The Agency stated in its decision that a statutory running right was an "exceptional remedy" which required actual evidence of marked abuse or failure before an application could be granted.

Other Approaches

Several railways have trackage rights agreements in place to facilitate rail freight operations and improve railroad efficiency. These are negotiated on a commercial basis, often on a quid pro quo basis, and according to accepted cost-sharing practices. Running rights with traffic rights are not common, except in the extreme, under a vertically integrated structure. Running rights are obviously more readily available under a vertically separated rail industry such as in Australia, the U.K. and Sweden.[57]

In the U.S., there are cases of running rights, but these have been a consequence of conditions agreed to as part of mergers of rail carriers.

Observations

Since the 1880s when running rights were first introduced in Canada, they were not intended as a pro-competitive mechanism. Rather, they were established to promote system efficiency.

Expanded running rights, however, have more recently been viewed as a critical element of a more competitive rail industry in this country. They are seen as a fundamental requirement to provide shippers with alternative rail transportation, without the need for new investments in unnecessary rail lines. It is also argued that railways should no longer be considered as public utilities which must be protected.

Suggestions have been made to change the public interest determination process so that the host railway must prove that the running right application is against the public interest (i.e., reverse onus test). This would make it easier for smaller railways or other potential operators to develop such a case. There have also been calls to expand those who can apply for running rights, currently available only to federally-regulated railways. This is especially significant given the recent emergence of many short line railways, most of them under provincial jurisdiction. Increased use of running rights was also recommended by the Hon. W.Z. Estey's Grain Handling and Transportation Review in 1998.

The Class I railways are fundamentally and vehemently opposed because they believe running rights:

- constitute a form of expropriation of assets, are contrary to our democratic values and pursuits and go against core principles such as commercially negotiated fees and reciprocity;

[56] CTA Decision No.505-R-2002

[57] Vertical separation is dealt with in a later section.

- are unfair since only mainline carriers can potentially be adversely affected;
- would move in the opposite direction of the United States which would be problematic given network integration pressures;
- could undermine network and line efficiencies by splitting traffic among competing carriers; and
- would discourage much-needed investments in railway infrastructure in Canada.

In considering this complex issue, CTAR made the following recommendations:

- any railway operator, whether under federal or provincial jurisdiction, have the right to apply to the Canadian Transportation Agency for running rights, provided the operator meets all necessary operating and safety standards and is adequately insured. (Recommendation 5.10)
- the running rights provision of the *Canada Transportation Act* be amended to allow an applicant to seek traffic solicitation rights. (Recommendation 5.11)
- a railway operator proposing to apply to the Canadian Transportation Agency for running rights be required to advise the infrastructure owner at least 60 days before making the application to encourage negotiations between the parties. (Recommendation 5.12)
- as part of its public interest determination on a running rights application, the Canadian Transportation Agency consider, at a minimum, the:
    - adequacy of existing service,
    - existence of competitive alternatives,
    - impact on all users and shippers on lines where running rights are sought,
    - impact on system efficiency,
    - financial and operational capability of the applicant,
    - willingness of the applicant to allow reciprocal access to its lines where applicable, and
    - impact on the financial viability of the infrastructure owner. (Recommendation 5.13)
- guest operators with traffic solicitation rights:
    - have the obligation to publish rates at the request of a shipper and to specify the level of service to be provided as part of published tariffs,

  - have the right to enter into confidential contracts with shippers, and
  - have authority to limit liability for loss or damage of a shipper's goods only in accordance with section 137 of the *Canada Transportation Act*.

- interswitching, competitive connection rates and final offer arbitration be suspended with respect to the movement of traffic on lines served by an infrastructure owner and one or more guest operators with traffic solicitation rights. (Recommendation 5.15)
- running rights orders issued by the Canadian Transportation Agency include a requirement that the guest operator provide reasonable notice when it intends to withdraw service on a line. (Recommendation 5.16)
- running rights compensation be negotiated between the parties. If the parties are unable to reach a commercial agreement in 90 days, either party could ask the Canadian Transportation Agency to set compensation in accordance with the Panel's rail access pricing proposals. (Recommendation 5.17)
- where traffic solicitation is sought, the rail access charge consist of
  1. compensation for all incremental costs the guest railway imposes on the host; and
  2. a contribution to the common costs of rail ownership that approaches the implicit contribution the infrastructure owner is earning on the specific traffic being solicited. (Recommendation 5.18)
- the following considerations be used as a guide in determining compensation for track access without traffic solicitation rights:
  - access fees should cover all incremental costs the host incurs as a result of the guest railway's operations;
  - access fees that differentiate among users on the basis of the value they place on rail access should be permitted;
  - access fees based on differential pricing should not be allowed to help infrastructure owners generate more revenue than they need in total to cover costs, including a reasonable return on their investment; and
  - access fees for government-owned or -directed passenger and commuter rail services should be limited to an amount that compensates infrastructure owners for the additional costs they incur, including congestion and delay costs, and provides a reasonable after-tax return on the book value of the capital assets used by the guest. (Recommendation 5.19)
- the Minister of Transport ensure that implementation of the access proposals recommended in this report comply with all applicable requirements of international and internal trade law. (Recommendation 5.20)

In attempting to strike a delicate balance between shipper and railway interests, it may be useful to consider three different types of rail services and their eligibility for running rights.

Branch lines. It is on these lines that access to a low-cost operator with highly responsive service to a captive shipper may be most beneficial. A reverse onus test would promote the possibility of new services in this area.

Main Lines. It is believed that granting running rights on the main lines would undermine line densities and efficiencies so critical to the Class I railways and their ability to serve all shippers located across the country. As such, access should be limited to exceptional circumstances. Shippers ideally have access to CLRs or potentially CCRs to access mainlines of competing railways.

Urban Gateways. The public interest is again different in urban gateways where rail lines provide critical connections to ports and terminals. In these often highly congested areas, with little or no room for expansion, the primary interest should be to maximize system efficiency and increase capacity. In these cases, the Joint Track Usage provisions contained in Section 139 could be applied. An excellent example of various authorities and carriers working together is the Alameda Corridor Transportation Authority which was established in 1989 to oversee the design and construction of a critical rail corridor connecting the ports of Los Angeles and Long Beach.[58]

5.2.5 Dispute resolution

Current Policy

The main dispute resolution mechanism provided in the CTA is final offer arbitration (FOA). A shipper may apply to the Agency to appoint an independent arbitrator to resolve a rate or service dispute.[59]

The arbitrator reviews the final offer of the shipper and the railway and must decide on one or the other. This dispute resolution technique was first developed with respect to salary disputes between baseball club owners and players and between municipalities and their workers. The process is intended as a high-risk process to encourage the parties to negotiate in good faith.

Since 1988 when FOA was introduced, it has been used on more than 20 occasions. More than half of the disputes were settled before the end of the arbitration hearing, suggesting that the mechanism was a powerful incentive to reaching a negotiated settlement.

Other Approaches

[58] This was a billion dollar investment, however.

[59] Sections 159-169 of the CTA deal with final offer arbitration.

There is no similar provision to FOA in the United States or other countries.

Observations

Although there have been few FOA cases in Canada, many shippers have argued that it represents an important bargaining chip in negotiations with railways. Although some railways have suggested replacing FOA with commercial arbitration, it is widely believed that they should be continued. Further attempts to reduce the complexity and cost of this process should be explored.

There is a requirement that arbitrators, when handling disputes for matters over $750,000, they must consider whether a shipper has alternative, effective, adequate and competitive means to transport the goods. There is no such requirement for disputes under $750,000. CTAR recommended that:

> *an arbitrator be required, in every arbitration, to consider whether a shipper has alternative, effective, adequate and competitive means to transport the goods that are the subject of the arbitration.*

5.2.6 Level of Service.

The Level of Service (LOS) discussion has concentrated on the level of freight rates relative to costs as an indicator of abuse of a dominant position. There may be parallel arguments concerning level of service (LOS). Prices and service levels go together. Monopolistic behaviour may not only be prices higher than in more competitive markets, but service quality might be lower. CTAR called for greater clarity in LOS standards in rail tariffs in hopes of reducing disputes between shippers and carriers over LOS. LOS are negotiated in confidential contacts, but this does not rule out the possibility of abuse of a dominant position in setting LOS in a confidential contract. Analogous to identifying excessive freight rates, there is a need for some criteria to identify what LOS would constitute an abuse of a dominant position. There is regulatory jurisdiction over LOS of tariff rates but at present there is no provision for appealing for regulatory intervention regarding LOS in contract rates, other than as part of a final offer arbitration process.

The CTAR discussion and possibility of fostering regulated competition are possible ways that regulatory intervention might be sought to counter arguments for unrestrained Ramsey pricing. But CTAR also conveyed a strong message that rail markets are working effectively for most shippers most of the time.

CTAR called for some kind of targeted regulation that would deal with the most egregious cases of abuse rather than pursue some comprehensive regulatory model that could risk undermining the performance of the North American rail system, which of course is not in the interest of shippers.

5.2.7 Other issues

A couple other rail issues in the *Canada Transportation Act* that should also be addressed.

Substantial Commercial Harm

A new requirement was introduced in 1996. Section 27 stipulates that only shippers that would suffer substantial commercial harm are entitled to relief under the CTA.[60] This provision has been widely criticized as being an undue obstacle the pursuit of various remedies under the law and should be repealed.

Commercially Fair and Reasonable

Another provision added in 1996 was that the Agency was required to ensure that all rates or conditions of service it established were commercially fair and reasonable to all parties. Although some shippers have also criticized this provision (Section 112), it is believed that such a requirement is appropriate given the overall objectives of the CTA.

5.3 Mergers and Acquisitions

Prior to 1996, proposed mergers and acquisitions in the railway industry were reviewed by both the NTA and the Competition Bureau. The 1996 CTA abolished industry-specific oversight of transportation sector mergers. Such mergers are now only reviewed by the Commissioner of Competition, under the *Competition Act*. The review however is limited only to competition issues and does not include any other public policy issues.

In the United States, the STB plays a major role in reviewing proposed mergers. Concerns about the negative impacts of past "mega mergers" led to new rules which, according to the STB "substantially increase the burden on rail merger and consolidation applicants to demonstrate that a proposed transaction would be interest the public interest" and to show that a merger would "enhance competition where necessary to offset negative effects of the transaction, such as competitive harm, and to address fully the impact of the transition on service, including plans for service reliability."

Increased north-south trade flows and pressures to integrate North America's rail industry (e.g. proposed CN-Burlington Northern-Santa Fe merger) must be monitored carefully since any proposed mergers could have a significant impact on railway competition in both countries. Such proposals should be considered for implications beyond competition issues provided for under the *Competition Act*.

CTAR made the following recommendations:

- the establishment of a new process for reviewing proposed transportation mergers, either within modes or cross-modally, to examine issues of broad national or

[60] This only applies to remedies for which a shipper must make an application (e.g. CLRs, level of service, right to a rate, and extended interswitching limits)

transnational interest separately from competition issues considered under the merger review provisions of the *Competition Act*. (Recommendation 6.1)

- the existing *Competition Act* process should continue to be used to evaluate whether a proposed merger in the transportation sector would prevent or lessen competition. (Recommendation 6.2)

- The proposed public interest review process would have the following steps:

  1. Parties notify the Minister of Transport of the proposed merger at the same time notice is served to the Commissioner of Competition.
  2. The notice to the Minister includes a statement of public interest impact, including

     - the objectives of the merger;
     - the impact of the merger on the transportation sector concerned and on the industry sectors it serves;
     - possible costs and benefits to shippers or passengers;
     - implications with respect to network rationalization and the labour force;
     - the regional impact of the merger;
     - the impact of the proposed merger on the overall structure of the transportation sector concerned; and
     - remedial or mitigating actions proposed by the merging parties to address public interest concerns.

  3. If the Minister concludes there are significant public interest issues related to the proposed merger, he/she would appoint a public interest evaluator to evaluate the proposed merger.
  4. The public interest evaluator evaluates public interest issues identified by the Minister, based on the statement of public interest impact provided by the parties to the proposed merger, and can hold hearings to receive input on public interest issues.
  5. Parties to a merger may amend the statement of public interest impact in response to concerns expressed by the public interest evaluator on public interest issues.
  6. The public interest evaluator interacts with the Competition Bureau to discuss and co-ordinate their respective investigations.
  7. At the conclusion of the evaluation, the public interest evaluator reports to the Minister, recommending, with respect to public interest issues, that the proposed merger

- be allowed to proceed;
- be allowed to proceed, subject to specified conditions; or not be allowed to proceed.

8. After receiving the report of the public interest evaluator, the Minister reviews it and makes a recommendation to the Governor in Council.

9. Approval should be subject to any conditions the Governor in Council considers relevant to protect the public interest.

10. Where the Governor in Council approves a merger subject to the parties to the merger meeting conditions to protect the public interest, a process to ensure compliance through monitoring and enforcement must be put in place.

11. The Competition Bureau and the public interest evaluator should be encouraged to work closely with the appropriate authorities in other countries when considering transnational mergers. (Recommendation 6.3)

The Panel recommended that the proposed merger review process apply to all transportation modes under federal jurisdiction. (Recommendation 6.4)

5.4 A Competition Policy Approach to Rail Pricing

5.4.1 Rail sector specific regulation

Since the 1800s, rail pricing issues in Canada have been addressed via a sector specific regulatory approach. Originally, a detailed rate making regulatory mechanism was developed and implemented in legislation that was designed specifically for the rail industry. A rail regulatory agency was established. The development of rail costing was an important element of implementing regulation.

Later, the legislation and regulatory mechanism become multi-modal, but separate laws and procedures were developed for the rail sector. In the past forty years, the intrusive regulatory regime was replaced with a progressive loosening of regulation and greater reliance on market forces and contracting. However, a rail specific regulatory regime remained which provided for a dispute resolution mechanism for shippers and carriers.

5.4.2 The underlying economic basis for rail rates

In the development of the rail regulatory regime, a few key economic principles were established by legislation or by regulatory precedent. Key among these were:

- The rail sector has high fixed costs.
- The rail sector has a high proportion of common costs.

- As a result of high fixed costs and a high proportion of common costs, rail marginal costs are very low.
- Non-discriminatory marginal cost pricing would not cover total costs.
- Governments are unwilling to subsidize rail services or rail infrastructure, with the notable exceptions of western grain transportation and inter-city passenger rail transportation.
- Rail shippers are heterogeneous with different willingness/ability to pay for rail services.
- In the absence of government subsidy, economic efficiency requires that price discrimination be used to generate sufficient revenue to cover rail costs. This means that different shippers will pay different rates for service, even if the costs of service are similar or unknown.
- Those shippers with the fewest transportation choices generally will have inelastic demands for rail transportation services. Rail carriers could potentially raise rail rates until the shipper was driven to (but not over) the edge of insolvency.
- Efficient price discrimination meant that higher rail charges *should be* charged to those shippers with inelastic demands.

5.4.3 Fairness vs. efficiency

The result of these economic principles was that some shippers pay rail rates significantly in excess of those paid by others. (It must be noted that as well, there are shippers now paying rates significantly lower than others.) To the economists, this outcome is desirable and economically efficient. To the shippers paying high rail rates, the outcome is *unfair*, although those shippers paying lower rates strongly prefer the status quo.

The concept of fairness has a long tradition in North American jurisprudence – price discrimination is against the law, except where explicitly provided for.[61] Unfortunately for some shippers, sector specific regulatory law is a basis for non-applicability of laws prohibiting price discrimination.

To establish a case for unfairness, shippers have commissioned studies of rail costs, often competently executed, to show to regulators or arbitrators that they are paying rates in excess of marginal costs, fully allocated costs, fully allocated costs with 'fair' rates of return, etc.

[61] While price discrimination is generally illegal there are issues of single vs. multi-product industries. Charging differential prices for different cuts of meat are not illegal. The same joint costs are incurred for all the cuts of meat. The basis for differential prices is demand elasticity. Courts or regulators may be more tolerant of differential pricing in multi-product industries. This is not always the case. U.S. airlines were disallowed from offering Youth fares.

Theses analyses miss the fundamental point of rail rate making. Rail economics and regulatory and court based jurisprudence have established that sector specific regulation not only calls for economic efficiency to guide rail rates, but override the application of laws prohibiting price discrimination. Further pursuit of attempts to establish *fair* rail rates will continue to be rejected by courts, regulators and arbitrators. More sophisticated rail costing exercises will do little to change the basis for higher rates charged to demand inelastic shippers.

5.4.4 Competition policy

In Canada, as in most developed countries, governments have established general (not sector specific) laws governing competition in markets. These laws cover many areas of market conduct by producers, including mergers, price discrimination, attempts to monopolize sources of supply, conspiracy to fix prices, etc. Sometimes these laws are referred to as comprehensive competition acts, as in Canada. In other countries, separate laws deal with different elements of market conduct, such as trade practices acts, prices surveillance acts, etc.

Jurisprudence has generally established that where a specific market conduct is regulated by any level of government, it will exempt such conduct from the application of the general competition law. In some jurisdictions the exemption is explicitly stated in the competition acts, or in sector specific acts in which the legislature makes explicit that they take precedence over competition acts.

In other cases, including Canada, the regulated conduct exemption is not explicit in law, but has been established either by jurisprudence or by administrative practice.[62]

5.4.5 A competition policy approach to rail rate setting

The above discussion raises the possibility of abandoning sector specific regulation of the rail industry and replacing it with the existing, general, provisions of the *Competition Act*. Section 50(1) of the *Competition Act* governs price discrimination. The attraction of such an approach is that price inelastic shippers might seek rate relief via the price discrimination provisions. The argument would be made that rail carriers have market power, at least over some shippers, and that this power has been used to illegally engage in price discrimination. If successful, such shippers would obtain rate relief.[63]

In Australia, the *Prices Surveillance Act* governs economy wide pricing practices. Included is a provision to prevent firms from taking advantage of market power when setting

[62] Canada's Competition Bureau is about the release a set of guidelines governing regulated conduct exemptions. The Bureau has released a number of such guideline documents to inform firms and consumers how the Bureau will interpret, investigate and enforce the *Competition Act*.

[63] The shippers may need to convince the court that there is no legitimate economic justification for differential prices. An application by tenderloin buyers that they are being exploited by meat packers who charge lower prices to hamburger purchasers would not likely be successful.

prices.[64] However, a prohibition of exercising market power in setting prices, or even an explicit prohibition of price discrimination does not mean that a Competition Authority or the courts will not allow discriminatory prices to be set. Competition laws are based on principles of economic efficiency, and in many cases there are explicit defences allowed for what would otherwise be anti-competitive behaviour, provided the gains in economic efficiency outweigh the costs associated with the lessening of competition.

An appeal to competition law which challenges *any* rate set above average cost could also be a means to reintroduce intrusive price regulation.

Legal opinion would be required to determine exactly how the *Competition Act* would be interpreted in Canada, and whether or not in practice it would provide the rate relief sought by these shippers.

Note that price discrimination is a criminal offense in Canada. This raises issues of jurisdiction (courts versus a tribunal) and standard of evidence (beyond a reasonable doubt versus balance of probabilities). As previously indicated, the Competition Commissioner is expected to begin a consultation regarding potential revisions to the *Competition Act*, and there is an expectation that some market actions that are currently classified criminal behavior would be decriminalized, and changing the status of price discrimination might be advocated.

Some may argue that there are dynamic efficiency gains from changes in rail policy which would reduce price discrimination. The argument is that improvements in shipper competitiveness have a magnified effect on the economy. This is a dynamic efficiency argument. However, jurisprudence in the area of competition policy has generally focused on static efficiency. Mergers or other behaviour which would otherwise substantially lessen competition may be authorized if it can be shown that efficiency benefits outweigh the costs in terms of reduced competition.

5.4.6 Timing issues

The timing for consideration of the *Competition Act* approach to rate regulation may soon be very good. The Competition Commissioner is shortly expected to begin a consultation process on a major set of revisions to the Act. Any changes needed to enable application of the Act to rail rate making could be considered at this time.

5.4.7 Consequences of the current Competition Act approach

The above describes how replacing rail sector specific regulation (by its repeal) with the general provisions of the existing *Competition Act* could provide rate relief to those rail shippers current paying significant mark-ups above marginal costs. However, this would likely set in motion major changes in the economics of the rail industry.

[64] Section 17 (3) a.

The economic viability of the rail industry is based on price discrimination. Without it, there is concern that it will not be possible for carriers to cover their costs. After decades of suppressed rates of return and the corresponding degradation of rail capital, the industry is only now prospering and renewing its capital. A legal requirement to end price discrimination could have the following consequences:

- Rail carriers would suffer reduced revenues from major price-inelastic shippers.[65]
- There would be a potential for increased rail traffic from these shippers, but not of sufficient magnitude to offset revenue losses from lower rates.
- Rail carriers would need to raise rates on price elastic shippers to offset the reduced revenues from inelastic shippers.
- There would be reduced rail usage by these shippers, possibly including the complete loss of their business. In spite of higher charges, total revenues from these shippers would be reduced.
- There would be a reduction in profit by the rail carriers.
- There would be a need for a general rise in rates to offset the loss. Thus the benefit from ending price discrimination would be offset in part by a general rate increase on all shippers.

A new equilibrium in the rail industry would likely take several years to establish. Some shippers would move to highway transportation, offset only in part by increased traffic from the price inelastic users.

The above scenario suggests that the end result would be a smaller, weaker rail industry, possibly inducing consolidation (mergers), reducing competitive alternatives for those shippers currently enjoying such a benefit. However, there is another possibility that must be considered. The rail industry structure put forth by economists as a rationale for the price-discriminating economically efficient approach might no longer be correct. A new view would be based on the following:

- Most of the price-elastic shippers long ago moved to trucking.
- The rail sector today is dominated by traffic that is long haul and heavy haul.
- New traffic forms, such as container movements, have such high commodity values that transportation costs are a small portion of the final delivered price, and thus they have inelastic demands. The new source of inelastic demand for rail service is the

[65] Some would argue that some bulk traffic, such as grain from the prairies would simply not move. While trucking is not viable, higher rail rates would make it uneconomic to transport and either grain would be used locally (e.g., for livestock) or other crops grown.

small portion of rail costs in final delivered prices, rather than the lack of competitive alternatives.

- Further, the rail carriers have developed high efficiency and high quality (fast and reliable) services for such movements, making it easier for the rail carriers to retain these customers, even with higher rail charges.

Put simply, this view would posit that the large differences in rail shipper ability/willingness to pay have been dramatically narrowed from what they were 25 to 50 years ago. If this is the case, then it may be possible to reduce the level of price discrimination within the existing rail sector specific regulatory format. This would move the industry closer to prices based on fully allocated costs, with fewer differences among shippers. This proposal can appear to be very appealing and on the surface may seem to have some merit. However, it would require a study of changes in rail traffic composition and price elasticities to establish the case for reduced price discrimination. This study itself may be very revealing as to which shippers pay more and which pay less than average costs, and of the latter, which would be likely to stop using rail as a mode of transport if faced with more uniform rates.

5.4.8 Observations

The *Competition Act* approach is appealing insofar as there are legitimate economic questions that are not fully considered in the current transportation framework. However, this would constitute a significant, even radical, change from the current situation. Thus there is a critical need to empirically re-examine the shipper base of the industry and seek to establish whether there is a case to be made to reduce the degree of price discrimination.

A well-executed empirical study could set the basis for using the existing rail regulation (and arbitration framework) to move toward closer toward rail rates based on fully allocated costs. Failure to do this type of empirical work prior to moving towards a *Competition Act* approach may entail unforeseen consequences that could take years to emerge and could jeopardize the economics of the rail industry and Canada's international competitiveness.

This type of study would need to be a joint effort of a team combining expertise in competition policy, knowledge of the rail industry and its existing regulatory and advocacy environment, and expertise in rail costing. The latter is required as issues in price discrimination are linked to costs of providing services, and Canada has no publicly available rail-costing model.

There are a number of academics in Canada with expertise in competition policy and jurisprudence. Three that come to mind with some background in the transportation industries are Prof. Doug West at the University of Alberta, Prof. Tom Ross at the University of British Columbia, and Prof. Emeritus William Stanbury of the University of British Columbia. There are many academics and consultants with experience in rail transportation policy. As well, there are a number of rail costing experts. Some, such as Travecon, have developed models of rail costs in Canada, which have been used in rate

arbitrations, although these are not based on Canadian regulatory costing data. We also note that one of the consultants for this study, Dr. Tretheway, has considerable rail costing experience and each have been involved in revisions to the URCS and its possible replacement. Prof. Emeritus W.G. Waters of UBC also has similar rail costing experience.

Before closing this section, it should be pointed out that there are weaknesses in current competition law. Competition law was developed in an era when policy concern was with the manufacturing and resource industries.[66] For example, predatory pricing jurisprudence was developed with manufacturing in mind. Predatory pricing tests compare revenues with avoidable costs. Avoidable costs are easily defined and measured in manufacturing, but difficult concepts for services industries. As well, the *Competition Act* has many provisions which are criminal acts. This poses two challenges. First, in spite of feelings which sometimes can be pure animosity, shippers may be unwilling to view rail pricing decisions as criminal acts worthy of jail time. More importantly, government would likely be unwilling to change provisions so that rail carriers face criminal penalties. Second, the standard for proof in criminal cases (beyond a reasonable doubt) is much higher than in civil proceedings (balance of probabilities). The higher bar makes the competition policy approach less likely to be successful and more expensive to pursue.

It should also be noted that under the current *Competition Act*, only the Commissioner of Competition may bring violations of the Act to the Competition Tribunal or the courts, with only a few exceptions.

To proceed with a *Competition Act* framework, it would be necessary to revise the Act to address these challenges: removing ambiguity in the practical application of the Act to transportation (and other services) industries, changing offences to civil rather than criminal acts, and allowing private action.

One final comment. U.S. competition law often allows treble damages for offences. This should be seriously resisted for implementation in Canada with respect to discriminatory pricing, as it would impose excessive penalties on rail carriers for routine pricing decisions.

[66] This is in contrast to regulatory policy which was developed initially with the transportation industries in mind.

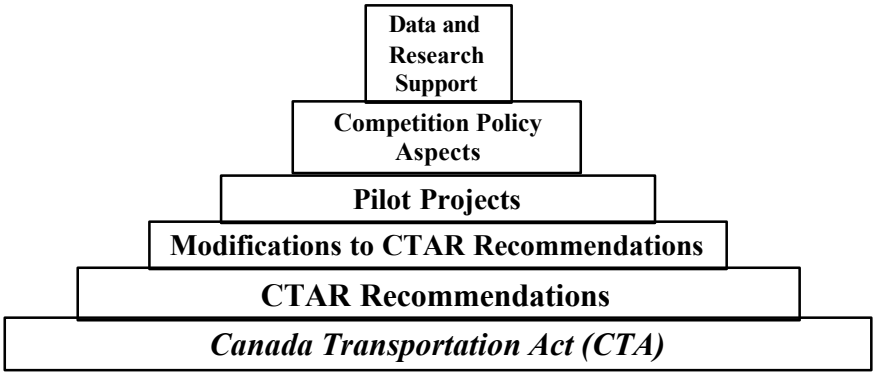
6.0 Recommendations

6.1 The Proposed Framework

A new competitive framework for Canada's rail industry must reconcile two conflicting interests. Shippers, facing intense global competitive pressures with falling or, at best, stagnant prices, need reliable services and rates which allow them to maintain a competitive market position. Railways, as capital-intensive businesses, need reliable revenue bases to support their required capital investments and traffic to build densities on their lines.

Both the pure transportation policy framework and the pure competition policy framework have strengths – as well as shortcomings – that should be taken into account in developing a policy framework to enhance the competitiveness of Canada's rail industry. The ideal framework would build on the best elements of both worlds. While neither the existing transportation policy framework nor the existing competition policy framework alone suffices to provide a competitive policy environment for the Canadian rail industry, there are elements of both that could be enhanced and combined, to serve both the needs of shippers and the railway industry. This framework is offered in the hope of stimulating productive discussion and debate that will lead Canada to a workable policy framework that achieves the delicate balance sought by Alberta Transportation and other key stakeholders. As such, the proposed framework uses as its starting point Canada's transportation policy framework, as modified by CTAR and the recommendations made above. To this point we add certain elements of competition policy to broaden the issues that should be taken into consideration, as well as other elements such as addressing the data gap.

The model of the proposed new policy framework can be depicted as follows:



The framework comprises six main components:

The *Canada Transportation Act (CTA)*: The foundation for the framework is the *Canada Transportation Act*. While not perfect, it does contain a number of pro-competitive

elements that have proven successful. As such, it makes a reasonable starting point for Canada's future rail policy framework.

The *Canada Transportation Act* Review (CTAR) Recommendations. To refine the existing CTA foundation, we apply the recommendations of the *Canada Transportation Act* Review. The extensive CTAR exercise sought to balance out the interests of shippers and carriers. Given the difficulty of this task, and notwithstanding some concerns expressed by shippers and carriers alike, the Review Panel succeeded in developing a reasonable *transportation* framework. As a result, we recommend that the CTAR recommendations be, in general, supported.

Modifications to the CTAR Recommendations. The CTAR recommendations, however, themselves require refinement as there are a number of CTAR positions that would not facilitate a more competitive railway industry. As a result, the following modifications to CTAR might be considered:

- CTAR *Recommendation 5.5* advocated restricting competitive connection rate remedies to:

  > *shippers with no 'alternative, effective, adequate and competitive" means of transporting the goods that would be subject to the rate and where the Agency determines that the rate is substantially above rates paid by other shippers of the specific commodity under similar conditions and that cannot be explained by apparent cost and value of service considerations.*

  This poses a new, potentially significant, barrier to the use of competitive connection rate provisions by shippers. While arbitrators indicated to the CTAR that this restriction might be acceptable, because it needlessly raises a new barrier, it should be rejected.

- Evaluate applications for running right in the context of type of track, rather than the homogenous approach in existence. Access to branch lines by low-cost innovative operators responsive to shipper needs may offer considerable benefit without imposing onerous impacts on the mainline carrier. A reverse onus test could be an appropriate means of addressing this potential opportunity for increased competitiveness. Access to main lines should only be provided under exceptional circumstances so as to not undermine the critical line densities that allow the Class I railways to provide economic service to shippers across the country. Shippers also have access via competitive line rate provisions or potentially competitive connection rate provisions. Access to rail lines in urban gateways could be provided for by application of Joint Track Usage provisions of Section 139 of the Act. As a general rule, a pro-competitive framework requires a reverse onus public interest test where possible. Before leaving this topic, it is noted that guidelines will have to be developed

for setting access prices to track. While CTAR recognised this issue, it offered no specific recommendations on principles for access prices.[67]

- Examine opportunities for further streamlining Final Offer Arbitration proceedings to improve accessibility for smaller shippers. Specifically, requiring an arbitrator dealing with a Final Offer Arbitration under $750,000 to consider whether a shipper has alternative, effective, adequate and competitive means to transport the goods to consider, should also be rejected as a new and potentially significant barrier to the use of FOA by smaller shippers.[68]

- Requiring railways to merely publish level of service attached to rates in its tariff may be insufficient as this does not rule out abuse of dominant position in confidential contracts or even published tariffs. Criteria to identify level of service standards may be needed in order to determine what constitutes abuse of dominant position, and provision made for shippers to seek regulatory intervention regarding level of service in contract rates. Level of service is as much a potential source of concern as is price. In the case of significant service failure by the host railway, consider providing access to another carrier, potentially on the basis of a pilot project, as a regulatory remedy.[69]

Pilot Projects. The foregoing gives a modified CTA framework for a more competitive rail environment. To this framework, a further refinement is required. The Canadian Transportation Agency and Transport Canada should be given the ability to push the bounds of the CTA regulatory framework by having the flexibility to approve pilot projects that test new processes. As an example, governments, co-operatives, Public Private Partnerships and/or other public entities could consider the possibility of acquiring one or more branch lines (and related infrastructure) from the Class I railways as a pilot project for vertical separation. Access to the public line(s) would be opened to established and new railways, and even to shippers desiring to operate their own service. This would allow testing of this concept in a relatively safe and controlled manner.

Competition Policy Aspects. Further refinement of the transportation framework requires application of competition policy. While Canada's existing competition framework is not appropriate as a replacement of the existing transportation framework, there are elements that could enhance the ability of the transportation framework to foster a competitive rail environment:

- Consider the dynamic efficiency gains that might be realized through additional competition as an offset to static efficiency losses of interfering with unrestrained Ramsey-type pricing by incumbent rail carriers.

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[67] CTAR, p. 60.

[68] There are concerns that without some threshold which must be met by small shippers, the arbitration provisions would simply become a regulatory appeal mechanism. Nevertheless, the provision recommended by CTAR seems onerous. Perhaps a reverse onus provision for the test would be appropriate.

[69] We note that even with the level of service regulations in the *Act,* level of service remains an important issue that could be strengthened.

- Expand the scope of abuse of dominant position to cover elements beyond price. Abuse of dominant position typically focuses on pricing. Pricing, however, is only one element of the transaction: the level of service (LOS) one obtains for a given rate is equally important. Shipping a good at the right price, but having it delivered late, damaged, or not at all, substantially reduces, or even negates, the value of the movement. In addition, innovation is related to the level of service. Prevention of new and innovative services that could expand the existing market or create new ones (e.g., the impact that the innovation of low-cost air carriers has had on revolutionizing air travel in the U.S., Europe, and Canada) is equally important from a public policy perspective. Since abuse of dominant position can take the form of higher prices, lower service levels, or stifling of innovation, investigations into abuse of dominant position needs to examine all three elements. Thus, a pro-competitive framework requires full consideration of LOS impacts as part of any public interest test. This is especially true in the review of any future mergers or acquisitions.

Data and Research Support. One of the "costs" to market participants such as carriers of increased freedom from regulatory prescription should be the provision of adequate and timely data. Not only is this necessary for effective public policy and protection against abuse of dominant position, it is key to developing a level of trust between shippers and carriers that is sorely lacking in the rail transport industry.

6.2 Further Research

There are a couple areas where further research should be undertaken:

Consider Development and Application of a Stand Alone Pricing Test. Consider the development and application of a stand alone pricing test. The U.S. has a costing methodology, the Uniform Rail Costing System (URCS), the successor to the previous Rail Form A costing. While the URCS was designed for other uses, it has been used for stand alone costing test, although it needs to be noted that there are limitations and problems with this system.[70]

Application of a stand alone costing test in Canada will require development of a publicly available rail costing system. While this would be costly to develop, Canada may be able to utilize the URCS framework and apply it to Canadian data, although it might be preferable to address the limitations with the URCS framework and leapfrog this methodology. To the extent that this approach is costly, it could be proposed to shippers that they fund this part of this effort, as a means of determining whether this effort has sufficient merit to pursue. Such an investigation would need to examine the following:

- How the U.S. applies the test.
- The costing methodology used to apply the test, and its limitations.

[70]Due to its limitations, there have been efforts, although unsuccessful, to replace URCS with a better costing system.

- Whether there are data available in Canada to estimate the required cost methodology.

The resources and time required to develop and test the cost functions. The U.S. has a well developed costing methodology, the Uniform Rail Costing System (URCS), the successor to the previous Rail Form A costing. Application of such a test will require development of a publicly available rail costing system. While this has been costly to develop, Canada may be able to utilize the URCS framework and apply it to Canadian data. To the extent that this approach is costly, it could be proposed to shippers that they fund this part of this effort, as a means of determining whether this effort has sufficient merit to pursue. Such an investigation would need to examine the following:

- How the U.S. applies the test.
- The costing methodology used to apply the test.
- Whether there is data available in Canada to estimated the required cost methodology.
- The resources and time required to develop the cost functions.

Examine whether differential pricing is still justified. Price discrimination, as allowed in the rail industry, is based on shippers having significantly different price elasticities of demand. While decades ago, this assumption was valid, it is less clear today. Many shippers have been lost to other modes, and a very large portion of remaining traffic is bulk traffic, potentially with similar elasticities. Newly expanded intermodal traffic also might be found to have similar demand elasticities due to the lower share of transportation costs in final delivered prices of goods shipped. As well, the extension of interswitching limits may also have contributed to reduced numbers of 'captive' shippers.

An investigation of price elasticities may reveal a much smaller range of elasticities than is commonly assumed. If so, this could be put forward as evidence for a) legislative reform, and b) dispute resolution. In light of the potential for mergers and acquisitions in the rail industry stakeholders should investigate the evidence for recognition of dynamic efficient gains as an offset to static efficient losses from interfering with Ramsey (differential) pricing. Evidence from such a study should be included in the public interest evaluation of a proposed merger.

Examine Competition Policy Approach. The competition policy approach was considered as part of this study. In its current form, it was deemed not suitable for application to rail transport. The following changes to Canada's competition law would be required before serious consideration of this approach could be made:

- Removal of the regulated conduct exemption which is effectively present for rail.
- Decriminalize price discrimination behaviour to make it a civil offence.

- Allow individual action under the *Competition Act* with respect to price discrimination, rather than allow only the Competition Commissioner to make application to the Competition Tribunal or courts.

- Develop evidence of the benefits of ending price discrimination, such as the dynamic efficiency benefits, which will be necessary to prevent an economic efficiency gain defence of price discrimination.

It must also be pointed out that elimination of differential pricing will likely mean that some shippers will pay higher rates, in order to offset revenue losses from those shippers who will benefit from reduced mark-ups. Further study is suggested prior to implementing the new framework.

Appendix A: Relevant Sections of the 1996 Canada Transportation Act

National Transportation Policy

5. It is hereby declared that a safe, economic, efficient and adequate network of viable and effective transportation services accessible to persons with disabilities and that makes the best use of all available modes of transportation at the lowest total cost is essential to serve the transportation needs of shippers and travellers, including persons with disabilities, and to maintain the economic well-being and growth of Canada and its regions and that those objectives are most likely to be achieved when all carriers are able to compete, both within and among the various modes of transportation, under conditions ensuring that, having due regard to national policy, to the advantages of harmonized federal and provincial regulatory approaches and to legal and constitutional requirements,

(a) the national transportation system meets the highest practicable safety standards,

(b) competition and market forces are, whenever possible, the prime agents in providing viable and effective transportation services,

(c) economic regulation of carriers and modes of transportation occurs only in respect of those services and regions where regulation is necessary to serve the transportation needs of shippers and travellers and that such regulation will not unfairly limit the ability of any carrier or mode of transportation to compete freely with any other carrier or mode of transportation,

(d) transportation is recognized as a key to regional economic development and that commercial viability of transportation links is balanced with regional economic development objectives so that the potential economic strengths of each region may be realized,

(e) each carrier or mode of transportation, as far as is 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,

(f) each carrier or mode of transportation, as far as is practicable, receives fair and reasonable compensation for the resources, facilities and services that it is required to provide as an imposed public duty,

(g) each carrier or mode of transportation, as far as is practicable, carries traffic to or from any point in Canada under fares, rates and conditions that do not constitute

(i) an unfair disadvantage in respect of any such traffic beyond the disadvantage inherent in the location or volume of the traffic, the scale of operation connected with the traffic or the type of traffic or service involved,

(ii) an undue obstacle to the mobility of persons, including persons with disabilities,

(iii) an undue obstacle to the interchange of commodities between points in Canada, or

(iv) an unreasonable discouragement to the development of primary or secondary industries, to export trade in or from any region of Canada or to the movement of commodities through Canadian ports, and

(h) each mode of transportation is economically viable, and this Act is enacted in accordance with and for the attainment of those objectives to the extent that they fall within the purview of subject matters under the legislative authority of Parliament relating to transportation.

Interswitching

Application to interswitch traffic between connecting lines

126. (1) If a railway line of one railway company connects with a railway line of another railway company, an application for an interswitching order may be made to the Agency by either company, by a municipal government or by any other interested person.

Order

(2) The Agency may order the railway companies to provide reasonable facilities for the convenient interswitching of traffic in both directions at an interchange between the lines of either railway and those of other railway companies connecting with them.

Interswitching limits

(3) If the point of origin or destination of a continuous movement of traffic is within a radius of 30 km, or a prescribed greater distance, of an interchange, a railway company shall not transfer the traffic at the interchange except in accordance with the regulations.

Extension of interswitching limits

(4) On the application of a person referred to in subsection (1), the Agency may deem a point of origin or destination of a movement of traffic in any particular case to be within 30 km, or a prescribed greater distance, of an interchange, if the Agency is of the opinion that, in the circumstances, the point of origin or destination is reasonably close to the interchange.

Regulations

128. (1) The Agency may make regulations

(a) prescribing terms and conditions governing the interswitching of traffic, other than terms and conditions relating to safety;

(b) determining the rate per car to be charged for interswitching traffic, or prescribing the manner of determining that rate, including the adjustments to be made to that rate as a result of changes in costs, and establishing distance zones for those purposes; and

(c) prescribing, for the purposes of subsections 127(3) and (4), a greater distance than 30 km from an interchange.

Cost savings to be considered

(2) In determining an interswitching rate, the Agency shall take into consideration any reduction in costs that, in the opinion of the Agency, results from moving a greater number of cars or from transferring several cars at the same time.

Limit on rate

(3) In determining an interswitching rate, the Agency shall consider the average variable costs of all movements of traffic that are subject to the rate and the rate must not be less than the variable costs of moving the traffic, as determined by the Agency.

Transfer of lines does not affect entitlement

(4) For greater certainty, the transfer of a railway line, or an operating interest in it, under Division V or section 158 of the National Transportation Act, 1987 does not affect any entitlement to an interswitching rate.

Review of interswitching regulations

(5) The Agency shall review the regulations when the circumstances warrant and at least once in every five-year period after the regulations are made.

Competitive Line Rates

Application

129. (1) Sections 130 to 136 apply where

(a) a shipper has access to the lines of only one railway company at the point of origin or destination of the movement of the shipper's traffic; and

(b) a continuous route between those points is operated by two or more companies.

Transferred railway lines

(2) For greater certainty, the transfer of a railway line, or an operating interest in it, under Division V or section 158 of the National Transportation Act, 1987 does not affect the right of a shipper to obtain a competitive line rate under sections 130 to 136.

When competitive line rate to be established on shipper's request

130. (1) Subject to section 131, the local carrier serving the shipper at the point of origin or destination, as the case may be, shall, on the request of the shipper, establish a competitive line rate applicable to the movement of the traffic between the point of origin or destination, whichever is served exclusively by the local carrier, and the nearest interchange with a connecting carrier.

Requirement unaffected by extent of carrier's capability

(2) The local carrier shall establish the competitive line rate even if it is able to move the traffic over the whole of the continuous route or a portion of that route that is longer than the portion in respect of which the competitive line rate is to apply.

Designation of route by shipper

(3) The shipper may designate the continuous route for the movement of the shipper's traffic from the point of origin to the point of destination.

Route within Canada

(4) If the ultimate point of destination of a movement of the shipper's traffic is in Canada, the shipper shall designate a route wholly within Canada, unless there is no cost-effective continuous route wholly within Canada that is available to the shipper and over which it is reasonable to move the shipper's traffic.

Export and import

(5) For the purposes of this section,

(a) if the point of destination of a movement of traffic is a port in Canada for export out of Canada, that port is the ultimate point of destination in Canada; and

(b) if the point of origin of a movement of traffic is a port in Canada for import into Canada, that port is the point of origin.

Nearest interchange

(6) For the purposes of subsection (1), the nearest interchange is the one nearest the point of origin or destination, whichever is served exclusively by the local carrier, in the reasonable direction of the movement of the traffic from the point of origin to the point of

destination on the continuous route designated by the shipper, unless the local carrier can demonstrate that the interchange cannot be used for engineering reasons.

Shipper and connecting carriers must agree

131. (1) A competitive line rate must not be established unless the shipper agrees with the connecting carrier, and with any other company, other than the local carrier, that moves traffic over a portion of the continuous route, on the terms and conditions governing their movement of the traffic, including the applicable rate.

No other rate applies

(2) If an interswitching rate determined under paragraph 128(1)(b) is available for a portion of the route operated by the local carrier, no other rate may be applied to that portion of the route.

Movement on flat cars or less than carload traffic

(3) A competitive line rate must not be established for the movement of trailers on flat cars, containers on flat cars or less than carload traffic, unless they arrive at a port in Canada by water for movement by rail or by rail for movement by water.

Maximum portion of traffic

(4) The portion of a movement of traffic in respect of which a competitive line rate may be established must not exceed 50 per cent of the total number of kilometres over which the traffic is moved by rail or 1 200 km, whichever is greater.

Exception

(5) On application of a shipper, the Agency may establish a competitive line rate for a greater portion of a movement of traffic if the Agency is satisfied that no interchange exists within the maximum portion referred to in subsection (4).

No other rates may be established

(6) If a competitive line rate has been established for a movement of traffic of a shipper, no other competitive line rate may be established in respect of that movement while the rate is in effect.

Application to Agency to establish competitive line rates

132. (1) On the application of a shipper, the Agency shall, within forty-five days after receiving the application, establish any of the following matters in respect of which the shipper and the local carrier do not agree:

(a) the amount of the competitive line rate;

(b) the designation of the continuous route;

(c) the designation of the nearest interchange; and

(d) the manner in which the local carrier shall fulfil its service

(e) obligations.

No final offer arbitration

(2) If a matter is established by the Agency under this section, the shipper is not entitled to submit the matter to the Agency for final offer arbitration under section 161.

Competitive line rate

133. (1) A competitive line rate in respect of the movement of traffic of a shipper is the result obtained by applying the following formula:

A + (B/C x (D - E))

where

A is the amount resulting from the application of the interswitching rate;

B is the total revenue that the local carrier received in respect of all movement over its lines of railway

(a) of traffic that

(i) is the same as or substantially similar to, the traffic moved, and

(ii) is moved over similar distances, unless no such traffic is moved over similar distances; and

(b) during the most recent period designated by the local carrier or any other period determined by the Agency, if the Agency determines that the designated period is not appropriate in the circumstances;

C is the total number of tonne kilometres of the movement of traffic that generated the total revenue;

D is the number of kilometres over which the competitive line rate is to apply; and

E is the total number of kilometres to which the interswitching rate is applicable.

Adjustment of rate

(2) If a shipper performs any of the activities in respect of which an interswitching rate is applicable, the applicable interswitching rate in the description of A in the formula must be adjusted to account for the performance of those activities.

Alternative determination

(3) The Agency may make an order in respect of a particular shipper or railway company, or make regulations that apply generally to shippers or railway companies, establishing an alternative method of determining the amount of a competitive line rate if the amount cannot be determined in accordance with this section.

Rate must be compensatory

(4) A competitive line rate determined under this section must not be less than the variable costs of moving the traffic, as determined by the Agency.

Rate to be included in tariff or confidential contract

134. A competitive line rate must be set out in a tariff or confidential contract.

Effective period of rate

135. If a competitive line rate is established by the Agency, it has effect for one year after its effective date, or for any other period that the shipper and the local carrier agree on.

Obligation of carriers to provide cars

136. (1) If a competitive line rate is established, a railway company, other than the local carrier, shall provide the shipper with an adequate supply of cars for the traffic being moved.

Additional obligations

(2) Subject to any agreement to the contrary between the local carrier and any connecting carrier concerned, the connecting carrier is responsible for

(a) a prorated share, determined in accordance with subsection (3), of the costs of operating and maintaining the interchange during the period in respect of which the competitive line rate is in effect; and

(b) the capital cost of making any change or addition to the interchange that may be necessary for transferring the traffic for which the competitive line rate is established.

Determination of prorated share

(3) The prorated share is the proportion that

(a) the competitive line rate traffic transferred at the interchange during the period is of

(b) the total traffic transferred at the interchange during the period.

Tariff to set out service obligations

(4) The tariff setting out a competitive line rate must set out the manner in which the local carrier issuing the tariff shall, subject to subsection (1), fulfil its service obligations

(a) as agreed on by the shipper and the local carrier, if they agree on the amount of the competitive line rate; or

(b) as determined by the Agency, if the amount of the competitive line rate is established by the Agency under section 132.

Running Rights

138. (1) A railway company may apply to the Agency for the right to

(a) take possession of, use or occupy any land belonging to any other railway company;

(b) use the whole or any portion of the right-of-way, tracks, terminals, stations or station grounds of any other railway company; and

(c) run and operate its trains over and on any portion of the railway of any other railway company.

Application may be granted

(2) The Agency may grant the right and may make any order and impose any conditions on either railway company respecting the exercise or restriction of the rights as appear just or desirable to the Agency, having regard to the public interest.

Compensation

(3) The railway company shall pay compensation to the other railway company for the right granted and, if they do not agree on the compensation, the Agency may, by order, fix the amount to be paid.

Final Offer Arbitration

161. (1) A shipper who is dissatisfied with the rate or rates charged or proposed to be charged by a carrier for the movement of goods, or with any of the conditions associated with the movement of goods, may, if the matter cannot be resolved between the shipper and the carrier, submit the matter in writing to the Agency for a final offer arbitration to be conducted by one arbitrator or, if the shipper and the carrier agree, by a panel of three arbitrators.

Contents of submission

(2) A copy of a submission under subsection (1) shall be served on the carrier by the shipper and the submission shall contain

(a) the final offer of the shipper to the carrier in the matter, excluding any dollar amounts;

(b) [Repealed, 2000, c. 16, s. 11]

(c) an undertaking by the shipper to ship the goods to which the arbitration relates in accordance with the decision of the arbitrator;

(d) an undertaking by the shipper to the Agency whereby the shipper agrees to pay to the arbitrator the fee for which the shipper is liable under section 166 as a party to the arbitration; and

(e) the name of the arbitrator, if any, that the shipper and the carrier agreed should conduct the arbitration or, if they agreed that the arbitration should be conducted by a panel of three arbitrators, the name of an arbitrator chosen by the shipper and the name of an arbitrator chosen by the carrier.

Arbitration precluded in certain cases

(3) The Agency shall not have any matter submitted to it by a shipper under subsection (1) arbitrated if the shipper has not, at least five days before making the submission, served on the carrier a written notice indicating that the shipper intends to submit the matter to the Agency for a final offer arbitration.

Final offer arbitration not a proceeding

(4) A final offer arbitration is not a proceeding before the Agency.

Submission of final offers

161.1 (1) Within 10 days after a submission is served under subsection 161(2), the shipper and the carrier shall submit to the Agency their final offers, including dollar amounts.

Copies to the parties

(2) Without delay after final offers are submitted under subsection (1) by both the shipper and the carrier, the Agency shall provide the shipper and the carrier with copies of each other's final offer.

If no final offer from a party

(3) If one party does not submit a final offer in accordance with subsection (1), the final offer submitted by the other party is deemed to be the final offer selected by the arbitrator under subsection 165(1).

Arbitration

162. (1) Notwithstanding any application filed with the Agency by a carrier in respect of a matter, within five days after final offers are received under subsection 161.1(1), the Agency shall refer the matter for arbitration

(a) if the parties did not agree that the arbitration should be conducted by a panel of three arbitrators, to the arbitrator, if any, named under paragraph 161(2)(e) or, if that arbitrator is not, in the opinion of the Agency, available to conduct the arbitration or no arbitrator is named, to an arbitrator on the list of arbitrators referred to in section 169 who the Agency chooses and determines is appropriate and available to conduct the arbitration; and

(b) if the parties agreed that the arbitration should be conducted by a panel of three arbitrators,

(i) to the arbitrators named by the parties under paragraph 161(2)(e) and to any arbitrator who those arbitrators have, within 10 days after the submission was served under subsection 161(2), notified the Agency that they have agreed on, or if those arbitrators did not so notify the Agency, to an arbitrator on the list of arbitrators referred to in section 169 who the Agency chooses and determines is appropriate and available to conduct the arbitration, or

(ii) if an arbitrator referred to in subparagraph (i) is not, in the opinion of the Agency, available to conduct the arbitration, to the arbitrators named in that subparagraph who are available and to an arbitrator chosen by the Agency from the list of arbitrators referred to in section 169 who the Agency determines is appropriate and available to conduct the arbitration.

Interpretation

(1.1) If a matter was referred to a panel of arbitrators, every reference in subsections (1.2) and (2) and sections 163 to 169 to an arbitrator or the arbitrator shall be construed as a reference to a panel of arbitrators or the panel of arbitrators, as the case may be.

Delay in referral

(1.2) If the shipper consents to an application referred to in subsection (1) being heard before the matter is referred to an arbitrator, the Agency shall defer referring the matter until the application is dealt with.

Assistance by Agency

(2) The Agency may, at the request of the arbitrator, provide administrative, technical and legal assistance to the arbitrator on a cost recovery basis.

Decision or order affecting a matter being arbitrated

162.1 The Agency may, in addition to any other decision or order it may make, order that an arbitration be discontinued, that it be continued subject to the terms and conditions that the Agency may fix or that the decision of the arbitrator be set aside if

(a) the Agency makes a decision or an order arising out of an application that is in respect of a matter submitted to the Agency for a final offer arbitration and that is filed by a carrier before the matter is referred to arbitration; and

(b) the decision or order affects the arbitration.

Procedure

163. (1) In the absence of an agreement by the arbitrator and the parties as to the procedure to be followed, a final offer arbitration shall be governed by the rules of procedure made by the Agency.

Procedure generally

(2) The arbitrator shall conduct the arbitration proceedings as expeditiously as possible and, subject to the procedure referred to in subsection (1), in the manner the arbitrator considers appropriate having regard to the circumstances of the matter.

Exchange of information

(3) Within fifteen days after the Agency refers a matter for arbitration, the parties shall exchange the information that they intend to submit to the arbitrator in support of their final offers.

Interrogatories

(4) Within seven days after receipt of the information referred to in subsection (3), each party may direct interrogatories to the other, which shall be answered within fifteen days after their receipt.

Withholding of information

(5) If a party unreasonably withholds information that the arbitrator subsequently deems to be relevant, that withholding shall be taken into account by the arbitrator in making a decision.

Arbitration information

164. (1) The arbitrator shall, in conducting a final offer arbitration between a shipper and a carrier, have regard to the information provided to the arbitrator by the parties in support of their final offers and, unless the parties agree to limit the amount of information to be

provided, to any additional information that is provided by the parties at the arbitrator's request.

Arbitration considerations

(2) Unless the parties agree otherwise, in rendering a decision the arbitrator shall have regard to whether there is available to the shipper an alternative, effective, adequate and competitive means of transporting the goods to which the matter relates and to all considerations that appear to the arbitrator to be relevant to the matter.

Summary process

164.1 If the Agency determines that a shipper's final offer submitted under subsection 161.1(1) involves freight charges in an amount of not more than $750,000 and the shipper did not indicate a contrary intention when submitting the offer, sections 163 and 164 do not apply and the arbitration shall proceed as follows:

(a) within seven days after a matter is referred to an arbitrator, the shipper and the carrier may file with the arbitrator a response to the final offer of the other party;

(b) subject to paragraph (c), the arbitrator shall decide the matter on the basis of the final offers and any response filed under paragraph (a); and

(c) if the arbitrator considers it necessary, the arbitrator may invite the parties to make oral representations or may ask the parties to appear before him or her to provide further information.

Decision of arbitrator

165. (1) The decision of the arbitrator in conducting a final offer arbitration shall be the selection by the arbitrator of the final offer of either the shipper or the carrier.

Requirements re decision

(2) The decision of the arbitrator shall

(a) be in writing;

(b) unless the parties agree otherwise, be rendered within 60 days or, in the case of an arbitration conducted in accordance with section 164.1, 30 days after the date on which the submission for the final offer arbitration was received by the Agency; and

(c) unless the parties agree otherwise, be rendered so as to apply to the parties for a period of one year or any lesser period that may be appropriate, having regard to the negotiations between the parties that preceded the arbitration.

Incorporation in tariff

(3) The carrier shall, without delay after the arbitrator's decision, set out the rate or rates or the conditions associated with the movement of goods that have been selected by the arbitrator in a tariff of the carrier, unless, where the carrier is entitled to keep the rate or rates or conditions confidential, the parties to the arbitration agree to include the rate or rates or conditions in a contract that the parties agree to keep confidential.

Reasons not required

(4) No reasons shall be set out in the decision of the arbitrator.

Reasons may be requested

(5) The arbitrator shall, if requested by all of the parties to the arbitration within 30 days or, in the case of an arbitration conducted in accordance with section 164.1, seven days after the decision of the arbitrator, give written reasons for the decision.

Application of decision

(6) Except where both parties agree otherwise,

(a) the decision of the arbitrator on a final offer arbitration shall be final and binding and be applicable to the parties as of the date on which the submission for the arbitration was received by the Agency from the shipper, and is enforceable as if it were an order of the Agency; and

(b) the arbitrator shall direct in the decision that interest at a reasonable rate specified by the arbitrator shall be paid to one of the parties by the other on moneys that, as a result of the application of paragraph (a), are owed by a party for the period between the date referred to in that paragraph and the date of the payment.

Payment by party

(7) Moneys and interest referred to in paragraph (6)(b) that are owed by a party pursuant to a decision of the arbitrator shall be paid without delay to the other party.

Arbitration fees

166. (1) The Agency may fix the fee to be paid to an arbitrator for the costs of, and the services provided by, the arbitrator in final offer arbitration proceedings.

Payment of fees and costs

(2) The shipper and the carrier shall share equally, whether or not the proceedings are terminated pursuant to section 168, in the payment of the fee fixed under subsection (1) and in the cost

(a) borne by the Agency for administrative, technical and legal services provided to the arbitrator pursuant to subsection 162(2); and

(b) of the preparation of any reasons requested pursuant to subsection 165(5).

Confidentiality of information

167. Where the Agency is advised that a party to a final offer arbitration wishes to keep matters relating to the arbitration confidential,

(a) the Agency and the arbitrator shall take all reasonably necessary measures to ensure that the matters are not disclosed by the Agency or the arbitrator or during the arbitration proceedings to any person other than the parties; and

(b) no reasons for the decision given pursuant to subsection 165(5) shall contain those matters or any information included in a contract that the parties agreed to keep confidential.

Termination of proceedings

168. Where, before the arbitrator renders a decision on a final offer arbitration, the parties advise the Agency or the arbitrator that they agree that the matter being arbitrated should be withdrawn from arbitration, the arbitration proceedings in respect of the matter shall be immediately terminated.

List of arbitrators

169. (1) The Agency shall, from time to time, in consultation with representatives of shippers and carriers, establish a list of persons who agree to act as arbitrators in final offer arbitrations. The list must state which of the persons have indicated that they have expertise that may assist them in conducting final offer arbitrations and the nature of that expertise.

List per mode

(2) A separate list of persons may be established under subsection (1) in respect of each or any mode of transportation, as the Agency considers appropriate.

Publication of list

(3) The Agency shall have the list of persons made known to representatives of shippers and carriers throughout Canada.

Substantial Commercial Harm

27. (1) On an application made to the Agency, the Agency may grant the whole or part of the application, or may make any order or grant any further or other relief that to the Agency seems just and proper.

Limitation

(2) Where an application is made to the Agency by a shipper in respect of a transportation rate or service, the Agency may grant the relief sought, in whole or in part, but in making its decision the Agency must be satisfied, after considering the circumstances of the particular case, that the applicant would suffer substantial commercial harm if the relief were not granted.

Circumstances

(3) The circumstances to be considered by the Agency in making its decision under subsection (2) may include, but are not limited to, the following:

(a) the market or market conditions relating to the goods involved;

(b) the location and volume of traffic of the goods;

(c) he scale of operation connected with the traffic;

(d) the type of traffic or service involved;

(e) the availability to the applicant of alternative means of transporting the goods; and

(f) any other matters that appear to the Agency to be relevant.

Amendments

(4) The Agency may, on terms or otherwise, make or allow any amendments in any proceedings before it.

No applicability to final offer arbitration

(5) This section does not apply in respect of final offer arbitration under Part IV.

Commercially fair and reasonable

112. A rate or condition of service established by the Agency under this Division must be commercially fair and reasonable to all parties.