

Canadian Railway Service Issues in 2009: An essay 50 years on from
the appointment of the MacPherson Commission in Honour of
Professor Frederick W. Anderson*

Four considerations motivated me to write this essay. First, the 44th CTRF conference is 50 years and two weeks after the appointment of the Royal Commission on Transportation (MacPherson Commission). Second, I view the current investigation of rail service quality issues and the prospect of a panel making recommendations on those issues as the first radical conceptual departure from the regulatory (pricing) issues dealt with by the MacPherson Commission. However, there are lessons applicable today from the Commission's report. Third, there are questions again about the role of the National Transportation Policy in the strategic development of the transportation industry in Canada. And, finally, it is an opportunity to recognise again the many contributions of Fred Anderson to transport economics and transport policy analysis in Canada. I am writing an 'essay' rather than a 'paper' as an essay requires less documentation. The time and resources available to me are consistent with the former.

The majority of the essay relates to the question, why is the review of railway service a major departure for rail regulatory policy? To answer this question, it is necessary to review the challenge faced by the Commission, the policy direction which followed from it, the subsequent evolution of the regulation of the railways and, finally, the transformation of the transportation and logistics industries in the last decade. Perspectives on the current issues are presented. The essay concludes by considering the current role of the statement of National Transportation Policy.

* Professor Anderson's contributions are recognised in the Endpiece

Why is the railway service review a major departure for rail regulatory policy?

The common carrier obligations of the railways have meant that their actions and inactions related to their service offerings have always been matters of public scrutiny. The railways have been required to provide reasonable facilities for the receiving, loading, unloading and delivering shippers' traffic without delay and to accept and carry traffic offered by shippers without delay. Regulations have flowed from these obligations such as the general interswitching order of the Board of Railway Commissioners in 1908.¹ This was because the railways failed to reach satisfactory arrangements for the exchange of traffic and, therefore, the development of network services.

The Macpherson Commission recognised the importance of service levels in the competition among modes. However, its focus was on rates. The Commission recognised that the captive shipper, who "... must perforce accept the rules laid down by the mode he is forced to use, and an outlet for appeal from the conditions of such captivity becomes a legitimate interest of the regulatory function." (Volume II, p. 49) However, the conditions of the time did not warrant attention to the rules of carriage. It was disputes over freight rates that made railway regulation a subject of national political debate and required numerous royal commissions.

The approach of the Commission and the evolution of the regulatory regime are background to the new issues raised by developments in transportation and logistics. The most important developments have occurred since the passage of the *Canada Transportation Act* in 1996.

Mandate and recommendations of the MacPherson Commission

Professor Anderson is the first to point out that the work of the Royal Commission on Transportation was a product of its time. Notwithstanding, the name of the Commission, its mandate was to inquire into and report upon "... problems relating to railway

¹ *General Interswitching Order No 4988*, 6th Annual report BRC 1908

transportation in Canada...” (Order in Council, 13 May 1959) The recommendations of the Commission were primarily addressed to the corporate and national challenges arising from the reduced viability of the railways. However, a key feature of the Commission’s work was its drive to understand the underlying conditions from which issues arose. This is an attitude from which we can all benefit.

The Commission proceeded

... from the general to the particular in the firm belief that an understanding of the general – the problem as a whole – is a prerequisite for adequate treatment of the particular – the specific problems. To have done otherwise would, we feel, have exposed us to the temptation to treat symptoms rather than causes of a problem which has existed for so long in this country. We wished, in other words, to look for long-term solutions rather than for palliatives which would simply gloss over the problem on a short-run basis. (Volume I, Preface, p. 2)

The problem faced by the Commission, the railways and the country was “... that most of the ills which beset transportation in Canada, particularly railway transportation ... are caused by the failure of public and private attitudes to adjust to the realities of competition.” (Volume II, p. 143) The existence of time lags between the evolution of new economic conditions, the recognition of them and public and private responses to them is a challenge that societies always face.

The Commission recognised the need to adjust to an environment of pervasive competition among the modes and recommended policies consistent with reliance on the working of that competition. The Commission recommended policies that would “unleash [the competitive] potential” of the railways unburdened by public policy obligations. (Volume I, p.28) However, the Commission also recognised that for new public policies to be effective required “... the railways to take a fresh look at the principles and policies of management which have guided their operation in the past. Particularly, with respect to the rate structure, an opportunity exists for a more dynamic approach to railway pricing.” (Volume I, p.30)

It is appropriate to apply the perspectives of the Commission to the situation today. Have public and private attitudes adjusted to the economic conditions in current transport markets? Are the railways and shippers really adjusted to the realities of the role of logistics in supply chains and the needs for integration, even, partnership, that this brings? These are questions to be considered later

The evolution of regulation and policy from 1967 to 2008

Many but not all of the recommendations of the Commission were adopted in the legislation of 1967. Greater reliance was placed on the working of competition by giving considerable pricing freedom to the railways. However, collective pricing continued in trucking as well as by the railways and unremunerative imposed service obligations were not fully removed from the railways for over 20 years.²

Subsequent changes have been of five types. First, in 1987, the competition among carriers was enhanced by ending the right of collective pricing by carriers, except for liner conference shipping, and by allowing carriers and shippers to make confidential contracts.³ Second, the reach of competition among railways was extended by the widened application of interswitching, by allowing shippers to apply for competitive line rates and by allowing applications for running rights. Third, the regulatory authority of the Canadian Transportation Agency over freight rates has effectively been eliminated. This is in conjunction with the fourth change; measures have been introduced to improve the working of dispute resolution between the railways and shippers. These measures were introduced, in part, because of inadequacies in and the elimination of provisions dealing with maximum rate regulation and the regulation of rates under the old public interest clause. The measures include mediation,

² The Commission was ahead of its time in recommending a policy of “encouraging competition within road haulage industry” Vol. II p. 21.

³ The 1987 changes followed earlier measures in the U.S. but, Canada established the path of deregulation in 1967. The E.U. is now in the process of eliminating collective pricing by shipping lines.

final offer arbitration (FOA) and time limits on certain regulatory processes. Reliance is now placed on these measures to resolve rate disputes between shippers and carriers. Finally, transportation policy now includes issues such as security and environmental sustainability that were not part of public consideration in the 1960s.

Extending the reach of competition, the allowance of confidential contracts, the improved dispute resolution mechanisms, and the legislation of 1996 have resulted in the absence of rate disputes requiring initial resolution by the Agency.⁴ However, the concerns of shippers about services provided by the railways have escalated. It has been the focus of a number of cases before the Canadian Transportation Agency, several involving the grain system in Western Canada, still constrained by price cap regulations, and often affected by bad winter weather. The quality and regulation of railway services was raised before and reported on by the Canada Transportation Act Review Panel. During the peak traffic conditions of 2005, the adequacy of railway service was a concern of many shippers.

The effective deregulation of charges for ancillary services in 1996 seems to have been realised only later. Hence, the level of service provided by the railways and the regulation of the charges related to specific services became issues. They led to the 2007 revision of the *Canada Transportation Act* and to the current review of railway service issues by Transport Canada. The heightened concern about service levels is in part the result of new features in transport markets.

New features of transport markets relevant to service issues

There are four major developments in transport markets relevant to railway service issues. They are: the heightened expectations of efficiency in integrated logistics systems to support supply chains; the greater role of information and computer technologies; the increase in the volume of rail traffic to levels close to capacity; and the railways are now profitable.

⁴ In Decision 177-R-1998, the Agency ruled on whether rates charged by CN to Eagle Forest Products were consistent with a FOA decision.

Heightened expectations of efficiency in integrated logistics systems: The evolution of logistics management over the last 40 years has witnessed more effective integration across functions and corporations, with rapid strides in recent years thanks to information technology. The efficiency of global supply chains has come to depend on logistics systems that are reliable, lean and agile, although the level attained varies among logistics systems. Reliability of equipment and operations to avoid loss and damage but, also, more reliable delivery schedules often through time-defined services, has become more important as carriers and shippers design their operations with greater interdependency. The railways themselves are finding cost savings as well as service improvements by shifting to scheduled trains rather than trains moves dependent on the right train consist (CN's precision railroading).

The greater role of information and computer technologies: The advances in information and computer technologies (ICT) have been major contributors to the expansion of and greater efficiency in supply chains. However, to the extent that ICT has facilitated greater centralisation of control, there is a danger that centralised decision makers may not be well informed about local conditions. The risk is greatest where cross functional activities are involved, such as accounting not knowing details of maintenance, and demurrage management lacking details on train operations.

The utilisation of rail capacity: The capacity of railways to move freight has many dimensions. Most often, it is thought of as the capacity of track; the tonnage of traffic or number of trains that a segment of line can carry on a sustained basis. This depends on a line's characteristics including the number of tracks, sidings, terminal conditions, gradients and terrain, the mix and characteristics of trains and the need for track maintenance and improvement activities. The history of the railway network has meant that surplus capacity has existed in much of the system or, more accurately stated, capacity enhancing investments have only been needed at few locations. However, rapid traffic growth since 2000 is acknowledged to have

shifted the railways from a general position of adequate, if not surplus track capacity, to one of capacity constraint – a condition expected to return after the current recession.

Capacity is also affected by the amount of rail power (locomotives, their power and availability) and rail cars (the number, characteristics and service days). Investments in improved equipment have added capacity. The fleets may have fewer cars but better asset management has increased capacity while tightening slack in the system. As the railways – and their customers – face demands with seasonal, cyclical and ‘random’ variations, it is to be expected that peak periods of full utilisation and capacity constraints will exist. The rates of traffic growth since 2000 created shortages of capacity in both track and rolling stock. The latter was made worse by the congestion that inevitably developed at points in the congested network.

The concerns about capacity utilisation and service quality reached new levels for at least three reasons. First, the levels of capacity utilisation and constraint were exceptional and seemingly unforeseen. Second, the rapid growth of global supply chains designed to be served reliably has raised the costs of service failures. And, third, some shippers speculate that the railways have held back investments in their capacity in order to enhance their return on capital.

The railways are profitable companies: One of the most dramatic changes in the transport market is the success of both national railway companies in achieving profitability. They have realised profitability through more efficient operations, the removal of the burden of unremunerative public service obligations and the growth of high volume traffic categories. It is an important measure of the success of public and private policies that the railways have become profitable and efficient companies while generally serving shippers well.

However, profitability changes the appropriate regulatory paradigm. When the railways were ‘revenue inadequate’, it was economically efficient for them to use their market power to curtail capacity and raise rates up to some level judged ‘equitable’ in their pursuit of

profitability. Now that the railways are profitable, the use of market power to restrict output and to raise prices could be inefficient. It raises questions comparable to those applied to the regulation of public utilities. However, it is not appropriate to consider the type of regulation applied traditionally to public utilities because of the considerable and diverse forms of competition that railways face in many of their markets. Further, railways' market powers are constrained by mediation and FOA, although the confidentiality associated with those processes precludes full evaluation of their effectiveness.⁵ Shippers have a particular concern that while charges for ancillary services are a minor part of railway revenue, they may be used to extract 'monopoly profit'.

The implications for service regulation: The concerns about the quality of rail service reached their peak in 2005 when rail and other systems faced capacity bottlenecks. However, the concerns of shippers go beyond those related to on-time performance. They see need for new approaches to the commercial and regulatory processes to help resolve a variety of service issues.

Railway services - aspects and issues

Indications of issues with railway services can be gathered from the Decisions of the Agency and of courts and from various presentations of shippers and the railways. The information is sufficient to allow recognition of a number of issues. They are: whether the railways are investing sufficient in rail network capacity and in rolling stock; whether the allocation of scarce resources is commercially fair and efficient; whether the nature and management of ancillary tariffs, especially, demurrage, result in efficient services; whether penalty clauses should more frequently apply to railways as well as shippers for failure to meet performance standards; and whether shippers, railways and others in the logistics and supply chains are well adjusted to the challenges of operating in a multi-actor system

⁵ Shipper support for FOA in an environment of confidentiality does not necessarily mean that the outcome is either fair or efficient.

demanding reliability while facing traffic growth and congestion. These issues are considered briefly and in turn in the expectation that questions raised will give a better appreciation of “the problem as a whole”.⁶

The sufficiency of capital investment by the railways: Overall, the diverse competitive pressures faced by the railways seem to preclude deliberate underinvestment as a profit maximising strategy. (This presumption may warrant investigation but it is beyond the scope of this essay.) However, concerns persist in view of the capital intensive nature of railways and their desire to avoid risky (peak) investments.

The dominant issue behind capital investment, the vital part being long term, is the accuracy of traffic forecasts. Given the number of commodities carried, the large number of shippers and supply chains served, and the long-term and short-term variations in the commodity flows, there is considerable uncertainty in forecasts. In recent years, more attention has been given to collective forecasting activities, for example the freight demand outlook activities of the Western Transportation Advisory Council (WESTAC) and Transport Canada. However, it is not clear that the forecasting processes are as sophisticated as they might be or that the level of communication and planning among shippers and carriers is close and dynamic enough to be efficient. The implication of working closer to capacity constraints than in the past is the need for better communication for investment planning and for operating activities. The magnitude of the challenges seems to have changed more than the processes for grappling with them.

It might be felt that differences in public and private investment time horizons and breadth of interests might provide a case for public investments or some form of investment guarantee so that a higher percentage of forecast peak traffic might be served than would be acceptable to private investors. However, it is difficult to imagine a

⁶ Detail on the incidence and types of problems and issues will be documented by the review of rail services.

practical case for such treatment of private investments in railways, as mines and others, even auto makers, may want the same. The current gateway initiatives of governments include investments in infrastructure to remove impediments such as road crossings of rail which are economically warranted.

Planning investments in car fleets has some different features from investments in routes, although the size of the fleet needed to handle a given volume of traffic is affected by fleet productivity in overall network operations. However, as cars may be specific to commodities and shippers, risk is amenable to academic and commercial evaluation so that risk-sharing strategies may be negotiated between the railways and shippers. Commercial contracts can be structured to take risk into account. This then raises the question of how far can the railways go to differentiate service and risk among shippers? What ability do they have to manage services flexibly given their and shippers' management resources? How much flexibility are the parties willing to build into contracts and how much differentiation is practically and legally acceptable? What would be the implication of greater service and rate differentiation in terms of the interpretation of the common carrier obligations related to service levels, including delays?

The allocation of scarce resources: The scarcity of capacity whatever its form raises the question, how is capacity to be managed and allocated? The answer to this requires a characterisation of the business model. Are priorities allowed and if so on what basis and to what extent? What role should a "fair and reasonable" standard play in the evaluation of services? How are shippers with different levels of efficiency to be treated? Can yield management of the type applied in the airlines be applied and how far is it practical given management resources and possible legal constraints? These questions have similarities with those raised in the previous section.

The nature and management of ancillary tariffs: Ancillary tariffs cover many charges often grouped into charges for added-value services, such as storing railcars, and penalty charges, such as

demurrage for holding cars beyond free time.⁷ They apply widely over the system and do not vary until a new tariff is issued. Confidential contracts with shippers may have specific provisions which differ from those in the general tariff but I understand demurrage provisions (different for single cars and unit trains) do not generally vary among contracts. A uniform tariff may be reasonable if the opportunity cost of similar cars in the general fleet is uniform but the centralised, uniform and static nature of demurrage arrangements give rise to doubts about its efficiency.

What is the economics behind the decision to drop average demurrage in favour of standard demurrage?⁸ Rail demurrage revenue has apparently increased but has long-run system performance and profitability? Given different conditions among logistics systems are different demurrage rules desirable? Given widely variable traffic levels, do static demurrage rates make sense?⁹ Are the information and operational relationships between the railways and shippers such that the variability of car placement can be efficiently and fairly tied to demurrage? This question leads to the next topic.

Penalty clauses in tariffs: Tariffs become enforceable when a shipper and a railway enter into a contract, actual or implied, which incorporates the terms of the tariff.¹⁰ Traditionally, railways have avoided service guarantees and tariffs rarely include penalties for under or non-performance by railways. However, contracts (and, perhaps some tariffs) under which cars are “booked” by shippers and

⁷ A firm with a customer focus might start from the premise, what the customer wants, the customer gets – at a price; there are no penalties.

⁸ Average demurrage gives shippers a credit for cars released in less than free time, the equivalent to despatch in shipping.

⁹ The nature of rail markets precludes the variability that exists in demurrage for bulk shipping, but experience in shipping suggests the desirability of some time-based variability in rail demurrage tariffs.

¹⁰ *Canadian National Railway Company v. Neptune Bulk Terminals (Canada) Ltd.*, 2006 BCSC 1073

promised by carriers include penalties for failure to make cars available as agreed. It is believed that some contracts include transit-time penalties. The general absence of penalty clauses applicable to the railways results from many factors. It suggests an asymmetry in contractual relationships but, while more penalty clauses might be expected, their presence would not be an indicator of efficient logistics relationships.

The challenges for railway multi-actor logistics systems: Rail logistics systems face many difficult challenges. The variability of traffic has been discussed. Their operations are also exposed to the hazards of the natural environment. They also operate as parts of multi-actor logistics systems. They carry traffic over their lines for many shippers, some in related logistics systems others quite separate. They interface, especially in ports, with originating and terminating organisations whose logistics performance is affected by many private and public entities. The complex structure has, no doubt, contributed to the common operations focus of the railways on performing their task of origin to destination line-haul movement as efficiently and profitably as they can. This can leave shippers without the level of service and the attention to service that they desire. It can also lead shippers to become passive in their pursuit of leadership in the logistics channel and improved rail and logistics performance.

The new long-term reality of congested routes will diminish the incentive for railways to compete. However, it should provide an incentive for all parties to work more closely to maximise efficiency and profitability along supply chains.

New approaches to commercial and regulatory processes

The terms of reference for the rail freight service review note that commercial approaches [solutions] are preferable but acknowledge that regulatory approaches [solutions] may be necessary. The challenge for the review panel will be to recognise and deal with the problem as a whole while dealing, as may be necessary, with specific problems. Approaches are needed so that solutions emerge.

I conclude that while the prominence of issues related to rail service is new, the perception and approach of the MacPherson Commission are still valid. Neither the railways nor shippers have addressed themselves as effectively as needed to the exchange of information and to the integration of operations as needed under the conditions of capacity constraints and supply chain management.¹¹ They have not adjusted to the new logistics conditions. To achieve the desired levels of customisation in rail services will require greater differentiation of service and pricing levels than currently exist. The regulatory implication is that the concepts and standards associated with common carrier obligations need significant revision. The railway market can still move in the direction of further commercialisation and reliance on market forces. The lessons of the MacPherson Commission and Fred Anderson live on.

The success of regulatory reform to date has been derived from the priority given to structural reforms over the regulation of behaviour. The Panel needs to follow this practice, thereby giving incentives to carriers and shippers to change their attitudes and processes. Prescribing service levels is not a desirable long-run solution as it is one-sided and encourages regulatory rather than commercial and dynamic approaches by shippers. “Customer-oriented railways” and “shipper-railway partnerships” should not be oxymorons. New attitudes and processes cannot be mandated but means can be introduced to encourage them – yes we can!

Finally, the private and public efforts to improve traffic forecasting need to be increased and improved. More and better communication is needed for short-run operational information exchange. More sophisticated programmes involving private and public roles are needed for medium-term and long-term forecasting.

¹¹ I have eschewed presenting the limited public information to support this conclusion in favour of the historical context of regulation. Discussion will be possible at the Conference. The Review Panel will have considerable evidence!

The role of National Transportation Policy

Since 1967, Canada has had a statement of transport policy that has set down the broad objectives for the transport sector and the principles to be followed by government for the achievement of those objectives. The policy, changed periodically, provides the long-term guidelines for government programs affecting transportation. The broad nature of the policy allows it to encompass shifts in specific regulatory initiatives and investment programs.

The current policy statement appears consistent with any changes in private and public sector practices that are needed and may be recommended by the Service Review Panel in order for Canadian rail and logistics services to adjust further to the conditions of the twenty-first century. The policy also appears entirely consistent with the direction and initiatives recognised by the Canadian Chamber of Commerce. It is not correct that the statement is “too general in scope to provide the guidance that is needed in the 21st Century”.¹² Nor is a change in the statement needed to advance the excellent programs recommended by the Chamber. That the U.S. uses the term ‘policy’ for its investment programs should not cause us to change the use and role of the National Transportation Policy statement in Canada.

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¹² The Canadian Chamber of Commerce, *Moving the Canadian Economy, Four Pillars for a National Transportation Strategy*, November 25, 2008, p.4.

ENDPIECE

Professor Fred Anderson has had a profound influence on the lives and careers of many of us who know him and had the pleasure to work with him. Fred's career revolved around his position as Professor in the Department of Economics at the University of Saskatchewan in Regina, the city in which he still resides. However, for many, his mark on Canadian transportation is highlighted by his contributions on special assignments. As the Secretary and Director of Research for the MacPherson Commission, he had a profound influence on the Commission's reports. The subsequent direction of Canadian transportation policy and the evolving efficiency of transport in Canada were enabled by the policy foundation he envisioned. As the first President of the Western Transportation Advisory Council, Fred established the foundation and direction of WESTAC which continues to make important contributions to the effectiveness of transportation in and beyond Western Canada.

Care, thoughtfulness, thoroughness and humility were hallmarks of Professor Anderson's work. He has always sought to understand the fundamental underlying aspects of matters that give rise to issues. Like a good doctor, he has never been satisfied with treating the symptoms of problems, he has probed and investigated so that he could identify and understand the underlying causes of problems. He has been equally diligent in his search for remedies to deal with those causes. He was not one to prescribe heavy doses of medicine - in the transport context, much government intervention. Rather he sought ways to enable private decisions to be the source of innovation and efficiency in transport, with the private sector operating under an umbrella of broad public policies.