SHIPPER INCENTIVES TO INVEST IN INFRASTRUCTURE AND OPERATIONS*

Introduction

Rail carriers often argue that certain supply chain participants must expand their infrastructure and operations in order to help increase supply chain efficiency. This is manifest in the recent submissions of both CN and CP to the Rail Freight Service Review ("**RFSR**") Panel, both of which stress the importance of the performance of all supply chain participants, including shippers and terminals. The expansion of operations to seven days per week for all supply chain participants has also been a central theme of the rail carriers' submissions to the RFSR.

Certainly the actions or inactions of shippers and terminals will have some effect on the supply chain. The problem is that from a shipper's perspective one of the fundamental stumbling blocks to further shipper investment in operations, storage, or operations is the rail carriers' control of the flow of benefits arising therefrom. In competitive (non-captive) circumstances, one would expect the carriers to make the investments and for the benefits to flow to shippers.

In captive circumstances, productivity gains are not passed on to the customer, and surpluses are misallocated as any consumer surplus arising from the exercise of the market power held by the carriers

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flows to the carriers (Tougas, 2008; Varian, 2006). Nonetheless, the opportunity exists for the carriers to offer incentives to shippers in the form of increased service, decreased freight rates or shipper participation in productivity gains.

The report by QGI Consulting Ltd. in connection with the RFSR entitled "Description of Canada's Rail Based Freight Logistics System" confirms this problem generally and in fact states that "recent productivity gains by the rail carriers have generally not been passed on to shippers" at least, if not more than, in captive circumstances.[1] This finding is consistent with rail carrier control of productivity gains.

Large Shippers

While some exceptions exist to the rail carriers' control of the flow of benefits, such instances may be restricted to a small group of primarily large shippers. Carriers may incent such large shippers to invest in the supply chain in combination with rail carrier-provided benefits if only to improve the shippers' own operations, aided in part by the scale of their operations.

Consider for example a hypothetical large shipper that owns or leases some or all of its own railcar fleet. Even in the absence of any rail carrier-provided productivity gains or freight rate decreases, it may make financial sense for that large shipper to make capital investments in its plant infrastructure or operations by implementing a more efficient railcar loading process, for example. If such an investment were to bring about cycle time decreases, the benefits could accrue to the shipper in the form of more efficient use of its railcar fleet, as well as decreased detention charges unilaterally imposed by carriers at origin.

[1] QGI Report, page 61.

Small Shippers

The rail carriers generally encourage all supply chain participants regardless of size to invest in increased infrastructure and operations, though it is typically the smaller supply chain participants that draw the most pointed criticism for alleged failure to invest in infrastructure. It is simply not possible for most captive shippers, in the absence of rail carrier cooperation, to make these investments, and to receive the benefits of the investment(s). Again, toward the elastic part of the demand curve, there is less need to incent shippers and a greater likelihood the carriers will fund these investments from the network contributions made by larger, captive shippers no less. Regardless of the degree of captivity, however, shipper-supplied rail carrier assets are simply not warranted for the volume of traffic offered for carriage.

From a medium sized shipper perspective, carrier control of the flow of productivity benefits in captive circumstances renders the prospect of a shipper committing itself to significant capital investment in its operations and infrastructure very unlikely, except in limited circumstances. The types of improvements commonly open to smaller shippers include lengthening of in-plant trackage, more efficient car loading/unloading infrastructure, increased silo or storage space, and use of trackmobiles to perform in-plant or in-yard switching. The characteristic those all have in common is that they cost the shipper significantly, but do not cost the rail carrier anything. In the absence of competition, a carrier has the ability to swallow up any resulting efficiency gains arising from these investments.

Lessons from the GHTS

Rail carriers have a long history of providing freight rate incentives to shippers in the grain handling and transportation system ("**GHTS**") to ship in large car blocks. From a rail carrier perspective, this has been largely a successful venture as grain companies have taken the initiative to invest in high-throughput grain elevators. The Canadian Transportation Agency ("**Agency**") characterized the rationalization of the GHTS as follows:

> "The extent of the rationalization of the grain handling and transportation system has been significant. For example, it has resulted in the decline in the number of grain elevators in western Canada from 1,004 (in 685 communities) in 1999 to 374 (in 282 communities) at the end of the 2005-2006 crop year. This rationalization is the result of, amongst other things, the development of high throughput elevators that have holding capacities of 10,000 - 20,000 tonnes and spotting and loading capabilities of 50 and 100-car blocks. Today, seven grain companies, most with several different locations, control 87 percent of the total primary elevator capacity on the prairies. Producers are encouraged to use the high throughput elevators by efficiency offerings for loading large car blocks. The railway companies currently provide incentives ranging from $3 to $7 per tonne depending on car block size."[2]

The Agency has also characterized the rationalization of the GHTS as follows:

> "There has been a large reduction in the number of country grain elevators and a movement towards the creation of large, high throughput elevators and a consolidation of branch lines in western Canada. Large sidings at these high throughput elevators enable the railway companies to form grain trains of up to 112 cars, which can handle as much as 10,000 tonnes of grain. As a result, the railway companies developed many different programs for ordering rail cars, designed to serve a varying range of shippers' requirements and to achieve operational and cost efficiencies for the railway companies. These programs have evolved over the years to take into

[2] Canadian Transportation Agency Decision No. 344-R-2007, at paragraph 57.

> consideration the changing landscape of the grain gathering system and to maximize efficiencies."[3]

The extent of the rationalization of the GHTS is complex and has arisen for a number of reasons, including the implementation of the *Canada Transportation Act* in 1996, which streamlined the rail carriers' discontinuance and conveyance processes and removed the requirement of regulatory approval for such abandonments. While comparison to the experience of the GHTS is not perfectly analogous, the experience of the grain industry is illustrative of the point that shippers can and will make capital investments in their infrastructure and operations where they are sufficiently confident that the benefits arising from those investments will accrue to them in adequate measure.

It should be noted that carrier-provided incentives to shippers to ship in large block sizes has not resulted in financial hardship to those carriers; a recent study estimated that for crop year 2008-09, CN and CP combined earned a contribution from statutory grain of $383.5 million.[4]

Seven Days Per Week Operation

Another issue which has gained prominence recently is that of the days of operation of supply chain participants. The rail carriers have been putting on a push to encourage all supply chain participants to operate seven days per week. For instance, CP's submission to the RFSR included the statement that "24/7 operations, as required, should be the standard business practice for participants in the Canadian supply chain".[5]

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[3] Canadian Transportation Agency Decision No. 488-R-2008, at paragraph 26.
[4] See Edsforth, 2010.
[5] See CP Submission to the federal Rail Freight Service Review, Recommendation #9

A good example of the conflict between shippers and carriers with respect to days of operation is the case of Northgate Terminals Ltd. vs. CN[6] ("**Northgate**"). In Northgate, the Agency resolved a complaint in favour of the complainant terminal which had seen its service reduced from two switches per day, five days per week, to one switch per day seven days per week, with the possibility of further switches at tariff rates. In doing so, the Agency stated:

> "[71] Although it is legitimate for CN to take measures aimed at the improvement of operating efficiency in the transportation system or the generation of cost reductions, it remains that these measures should not be implemented at the expense of the shipping community. In other words, the fact that CN may want to take measures to improve its operating and/or financial performance does not relieve CN of its obligations to provide adequate and suitable accommodation for the carriage of traffic and a railway company should not, by its actions, dictate to shippers what constitutes its level of service obligations.
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> …[73] The Agency is of the opinion that CN cannot, by imposing a change in the provision of its services, induce a shipper or a receiver of traffic to relocate its plant or to invest in the expansion of its storage track capacity in order to maintain its level of production."

On the issue of some shippers' inability or unwillingness to operate seven days per week, CN has recently described in its submission to the RFSR Panel the operational problems arising from a lack of seven days per week operations as follows:

> "When receivers or terminals do not unload during weekends, it unavoidably creates variability in the system, causing assets to sit idle waiting to be

[6] Canadian Transportation Agency Decision No. 166-R-2009

> unloaded. These situations affect the transit time and the availability of empty rail cars back at the customer loading locations in the following week. The logistics supply chain is best viewed as a "transportation conveyor belt", which can only maximize service to customers and minimize overall costs if it operates at a constant velocity as often as possible. In other words, customers and terminal operators could actually help themselves if they agreed to bear the small incremental expense from working seven days a week.
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> In fact, it is difficult to understand how some customers and terminal operators can state that they value reliability and predictability on the one hand, but yet refuse to take the very action (working seven days a week) that would increase reliability and predictability on the other. The fact that the inefficiencies created by not working seven days a week are passed on to the other participants in the logistics chain such as the railways should not escape the Panel's attention."[7]

CP's submission to the RFSR also recommended 24 hour per day, seven days per week operations of all supply chain participants.[8]

Indeed, it is likely beyond much controversy that if every participant in the supply chain were to commit to seven days per week operations, the rail carriers would be able to improve the efficiency of their operations. Unfortunately, it is far less likely that any carrier efficiency gains would actually be passed on to any given shipper who signs on for seven days per week operations. Given that most, if not all, shippers would incur significantly increased incremental

[7] CN Submission to the Rail Freight Service Review Panel, at pages 9-10.
[8] CP Submission to the Rail Freight Service Review Panel, at pages 22-23.

labour costs as a result of moving to seven days per week operations, it is difficult for a shipper to justify such a change in the absence of rail carrier productivity sharing. As in Northgate, if the supply chain participant can handle its traffic on a five day per week schedule and has been doing so as an established practice over many years, the prospect of some nebulous efficiency gain to the entire supply chain is not sufficient reason to incur the often significant cost of moving to seven days per week operations without the assurance that the shipper will receive, directly, some of the financial benefit.

In order to drive the efficiencies of a seven days per week operation into the supply chain, the rail carrier must provide some assurance to the shipper that it will realize some incremental benefit as a result of the increased hours of operation. There are many ways this might be achieved, most of which would depend on the competitive circumstances and operational attributes of the individual shipper. These might include decreased freight rates over a defined period of time, efficiency gain sharing, or rail carrier financial contribution to incremental labour and/or capital costs.

Recent Rail Carrier Service Initiatives

The recent RFSR Interim Report has recommended that rail carriers should "enter into good faith negotiations to establish service agreements" with stakeholders who have an operational or commercial relationship with them.[9] The rail carriers, particularly CN, have made several pronouncements regarding their recent efforts to collaborate with shippers and terminals. Some of these efforts may be meant to repair in a meaningful way the strained relations between the rail carriers and other supply chain participants. Even if the recent initiatives are simply an attempt to dodge re-regulation while the rail carriers are under the watchful eye of the RFSR, they will be beneficial if service improves or gains are passed through to shippers. In fairness, both rail carriers have in fact made some recent strides in achieving negotiated arrangements with other supply chain

[9] Recommendation #3.

participants to modify their operations in order to drive inefficiencies out of the supply chain.

For example, CN recently announced a memorandum of understanding for seven days per week unloading services at Western Stevedoring's Lynnterm Terminal in North Vancouver.[10]

CN has also been successful in encouraging some grain handling companies to operate some country and waterfront facilities on a seven days per week basis.[11] Both CN[12] and CP[13] have also recently entered into service agreements with a number of port facility stakeholders.

These initiatives are commendable and are the types of cooperative arrangements that distribution chain participants should be encouraged to enter if changes to status quo operations are to succeed. However, service improvements (which are as much a part of the cost function as rates), consultation, negotiation, and compensation will be the key characteristics of any further arrangements, as opposed to the simple imposition of whatever operational changes the rail carriers desire.

As CP stated in its submission to the RFSR:

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[10] See CN press release dated October 19, 2010, entitled "CN, Western Stevedoring and forest-products companies sign MOU for seven-day-a-week unloading at Lynnterm Terminal at Port Metro Vancouver".

[11] See CN press release dated September 1, 2010, entitled "CN service innovation generating more reliable movement of western Canadian grain".

[12] See CN press release dated July 28, 2010 entitled "CN, TSI Terminal Systems Inc. sign comprehensive Service Level Agreement to improve customer service and container throughput at Port Metro Vancouver".

[13] See CP press release dated June 23, 2010 entitled "CP and DP World Vancouver sign productivity and performance agreement".

> "Supply chain performance is a key enabler of the productivity performance of a trading nation like Canada and all stakeholders need to recognize that if Canada is to excel, transportation public policy must promote investment, increased competitiveness and enhanced productivity growth."

It would benefit all supply chain participants if the rail carriers were to continue this recent pattern of behavior and enter these types of relationships with a wider range of parties.

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