# Annual Report

# 2010-2011 Crop Year

## Monitoring the Canadian Grain Handling and Transportation System

Government of Canada / Gouvernement du Canada

Quorum Corporation

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Additional copies of this report may be downloaded from the Quorum Corporation website.

# Foreword

The following report details the performance of Canada's Grain Handling and Transportation System (GHTS) for the crop year ended 31 July 2011, and focuses on the various events, issues and trends manifest in the movement of Western Canadian grain during the past year. This is the eleventh annual report submitted by Quorum Corporation in its capacity as the Monitor appointed under the Government of Canada's Grain Monitoring Program (GMP).

As with the Monitor's previous quarterly and annual reports, the report that follows is structured around a number of measurement indicators. Since the 2009-10 crop year, however, these indicators have been organized into six-series, comprising:

Series 1 – Production and Supply
Series 2 – Traffic and Movement
Series 3 – Infrastructure
Series 4 – Commercial Relations
Series 5 – System Efficiency and Performance
Series 6 – Producer Impact

As in the past, each series builds on data collected by the Monitor from the industry's various stakeholders, and frames the discussion using year-over-year comparisons. To that end, activity in the 2010-11 crop year is largely gauged against that of the 2009-10 crop year. But the GMP was also intended to frame recent activity against the backdrop of a longer time series. Beginning with the 1999-2000 crop year – referred to as the GMP's "base" year – the Monitor has now assembled relatable quarterly data in a time series that spans twelve crop years. This data constitutes the backbone of the GMP, and is used widely to identify significant trends and changes in GHTS performance.

Although the data tables presented in Appendix 5 of this report can only depict a portion of this time series, the full series can be obtained as an .XLSX spreadsheet from the Monitor's website (www.quorumcorp.net). Additional .PDF copies of this report, as well as all past reports, can also be downloaded from the Monitor's website.

QUORUM CORPORATION

Edmonton, Alberta
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# Executive Summary

## PRODUCTION AND SUPPLY

The 2010 growing season began poorly, with extensive rains blanketing much of western Canada. Grain growers were forced to defer seeding an estimated 10.5 million acres of land across the prairies until early June 2010. Although significant seeding inroads were subsequently made, it was not supported by hot, dry weather. Rather, record or near-record rainfalls continued to frustrate farmers throughout much of the remaining growing season. This was accompanied by an equally cool and wet fall, which tempered the pace of the harvest significantly.

Not surprisingly, both the quality and quantity of the grain brought in from the field were affected. Overall grain production for the 2010-11 crop year fell to 50.1 million tonnes, a 10.8% reduction from the previous crop year's 56.1 million tonnes. When combined with the 11.2 million tonnes of stock carried forward from the preceding crop year, the overall grain supply reached 61.3 million tonnes. This constituted a reduction of 6.7% from the previous crop year's 65.7 million tonnes.

## TRAFFIC AND MOVEMENT

Despite a reduction in the grain supply, the GHTS's total handlings in the 2010-11 crop year proved largely comparable with that experienced a year earlier.

- Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by 4.7%, to 32.3 million tonnes from 33.9 million tonnes. Increased volumes from Alberta did much to counter the reductions posted by Saskatchewan, Manitoba and British Columbia.

- The amount of grain moved by rail to western Canadian ports decreased by 1.5%, falling to 28.0 million tonnes from 28.4 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 27.1 million tonnes, moved in covered hopper cars. The remaining 911,100 tonnes moved in different forms of railway equipment, predominantly containers.

- The port of Vancouver remained the principal export destination for western Canadian grain, receiving 16.7 million tonnes against 17.1 million tonnes a year earlier. Shipments to Prince Rupert fell by 7.4%, to 4.4 million tonnes from 4.8 million tonnes. Thunder Bay also posted a reduction in traffic volume, with shipments falling by 1.5%, to 5.3 million tonnes from 5.4 million tonnes a year earlier. In contrast, rail shipments to Churchill increased by 25.9%, to 635,700 tonnes from 505,000 tonnes.

- Port throughput, as measured by the volume of grain shipped from terminal elevator and bulk loading facilities located at Canada's four western ports, declined by 1.3% in the 2010-11 crop year, to 25.4 million tonnes from 25.8 million tonnes.

Vancouver accounted for 58.8% of this volume, with total marine shipments falling to 15.0 million tonnes from 15.3 million tonnes. West-coast shipments were bolstered by another 4.5 million tonnes exported through Prince Rupert, although the port's throughput declined by 3.6%. Conversely, there was an increase in volume through the GHTS's eastern gateways. Thunder Bay posted a marginal gain of 0.9%, with throughput rising to 5.3 million tonnes from 5.2 million tonnes. Churchill reported a 24.2% increase in its handlings, which rose to 657,500 tonnes from 529,600 tonnes.

## INFRASTRUCTURE

The infrastructure that defines the GHTS in western Canada has undergone significant change in the last dozen years. Much of this reflects the rationalization of the country elevator network, which saw significant transformation in the first years of the GMP. Still, the evolution continues, with the following changes being noted in the 2010-11 crop year.

- The total number of country elevators remained unchanged at 366. This left the accumulated loss since the beginning of the GMP at 638 facilities, or 63.5% of the 1,004 facilities in place twelve years earlier. A modest change in grain delivery points was recorded during the period, with the total being reduced by one to 273. Another 26,100 tonnes of storage capacity was added to the system, with the overall total being raised to almost 6.4 million tonnes for the first time since the 2001-02 crop year.

- With CN's abandonment of another 74.4 route-miles of track, the scope of the western Canadian railway network was reduced to 17,830.3 route-miles. Although this denotes a contraction of 8.4% from the 19,468.2 route-miles in place at the beginning of the GMP, it remains a modest reduction in comparison to the broader decline in the elevator system it serves. The crop year also saw a further shift in the balance between the Class 1 and non-Class-1 carriers as a result of the creation of yet another shortline, the Stewart Southern Railway, in August 2010. This served to reduce the infrastructure under CN and CP management to 15,249.5 route-miles, or 85.5%, while increasing that under shortline control to 2,580.8 route-miles, or 14.5%.

- With no changes to the terminal elevator network in the 2010-11 crop year, the system remained comprised of 15 licensed facilities with 2.5 million tonnes of storage capacity. These values proved only marginally greater than those of the GMP's base year, which were benchmarked at 14 elevators with 2.6 million tonnes of storage capacity. With seven of the elevators and 47.3% of the storage capacity, Thunder Bay continued to hold the largest share of these assets. Vancouver held second place with six facilities and 38.5% of the system's storage capacity. Prince Rupert and Churchill both followed with one terminal elevator each, and storage-capacity shares of 8.5% and 5.7% respectively.

## COMMERCIAL RELATIONS

The 2010-11 crop year ushered in a broad-based series of increases for most of the commercial services used to move grain through the GHTS. These ranged from a substantive hike in the rates for short-haul trucking to more moderate increases in the fees for country and terminal elevator handling.

- Commercial trucking rates for the movement of grain moved sharply higher in the first quarter of the 2010-11 crop year, followed by a more modest hike later in the year. This was driven largely by the resurgence in oil prices as well as the continuing demand for commercial carrying capacity. As a result, the composite price index for short-haul trucking rose by 22.7%, to 162.2 from the 132.2 posted at the close of the previous crop year.

- Railway freight rates moved generally higher in the first quarter, with much of this seemingly tied to the seasonal pricing initiatives introduced by the railways four years earlier. These increases also proved to be corridor specific, and ranged from 1% to 7% depending on the originating carrier. For the most part, these actions underscored the growing complexity in railway pricing, and accentuated the pricing differentials between CN and CP. These rates were reduced in the latter part of the crop year by anywhere from 2% to 6%, again in a reflection of the railways' seasonal pricing initiatives.

- Changes to the per-tonne rates assessed by grain companies for a variety of primary elevator handling activities proved mixed in the 2010-11 crop year. Chief among the decliners were the rates assessed for the receiving, elevating and loading out of grain, which fell by an average of 0.4%. An even sharper reduction of 7.4% was noted in the fees assessed for elevator storage. Running counter to these reductions were the charges assessed for the removal of dockage, which rose by 2.9%.

- Most of the GHTS's terminal elevators increased their per-tonne rates for the receiving, elevating and loading out of grain in the 2010-11 crop year. The only exception was found in the rates posted by Churchill, which remained unchanged for a seventh consecutive shipping season. On the whole, these pricing actions served to raise the composite price index by a further 1.5%. Storage charges also rose by about 2.4%.

### Tendering

The CWB issued a total of 204 tenders calling for the shipment of approximately 3.3 million tonnes of grain in the 2010-11 crop year. This represented a 36.2% increase over the 2.4 million tonnes put out to tender a year earlier. Unlike past years, the largest share of this tonnage, 48.9%, related to barley. This entailed a potential movement of 1.6 million tonnes, eight times what had been called a year earlier. Wheat ranked second, with calls for 1.5 million tonnes having been issued. This denoted 44.9% of the overall total compared to 74.8% the year previous. Durum calls, which fell to a 6.2% share from the 16.9% share seen a year earlier, encompassed a mere 207,000 tonnes.

The CWB's tender calls were met by 538 bids offering to move 8.7 million tonnes of grain, more than two-and-a-half times the amount sought. The majority of these bids, 66.4%, responded to calls for the movement of barley. Another 30.2% responded to those issued for wheat, while the remaining 3.4% answered those for durum. Ultimately, this resulted in the awarding of 216 contracts for the movement of almost 1.7 million tonnes of grain. This marked a reduction of 842,000 tonnes from the 2.5 million tonnes awarded a year earlier. The largest proportion, 46.4%, was directed to the port of Vancouver. This was followed in turn by Prince Rupert, Thunder Bay and Churchill, which secured shares of 40.0%, 13.0% and 0.5% respectively. These shipments represented 12.3% of the total tonnage shipped by the CWB to western Canadian ports in the 2010-11 crop year.

### Advance Awards

The total tonnage moved under the CWB's advance car awards program fell by 31.9% in the 2010-11 crop year, to 1.1 million tonnes from 1.6 million tonnes a year earlier. This represented 8.3% of the total tonnage shipped to the four ports in western Canada by the CWB, against the 10.9% share garnered a year earlier.

In conjunction with the 1.7 million tonnes that moved under the CWB's tendering program, a total of 2.8 million tonnes of CWB grain were moved under the auspices of these two programs. On a combined basis, this represented 20.6% of the CWB's total grain shipments to the four ports. In addition to falling considerably short of the 40% that had been targeted, this denoted the smallest proportion yet given over to these programs since their initiation.

### Commercial Developments

There were some notable developments in the commercial activities surrounding the movement of grain in the 2010-11 crop year, these included:

- Following on the heels of its majority win in the federal election of 2 May 2011, the newly installed Conservative government announced that it would be moving quickly to amend the mandate of the Canadian Wheat Board, and bring greater freedom to prairie farmers in the marketing of their grain. At its core was the Minister of Agriculture and Agri-Food's plan to introduce legislation that would remove the CWB's monopoly powers. The prospect of eliminating what had come to be known as the CWB's single desk – always a contentious issue – was cheered in some circles and derided in others. For the most part, the grain trade expressed support for the proposed change, but voiced a cautionary note in the absence of more specific details. Among opponents, the elimination of the single desk denoted a betrayal of prairie farmer interests, with many arguing that the *Canadian Wheat Board Act* required the government to have first consulted with farmers before attempting to make such a sweeping change. Against this backdrop, the minister soon defined a more specific timetable; one that provided for the introduction of appropriate enabling legislation in the fall of 2011 and the repeal of the CWB's monopoly as of 1 August 2012. Less clear was the future role of the CWB. As the 2010-11 crop year came to an end, it was becoming increasingly clear that a diminished role for the CWB would inevitably lead to a significant structural transformation within the grain handling industry. To be sure, a number of grain companies were beginning to consider their competitive position within this new framework; assessing both their commercial strengths and weaknesses. Inevitably, much of this focused on the adequacy of their individual grain gathering

and delivery networks, whether in the country or at port. But extending from this were also the wider questions relating to commercial preparedness; the future viability of the ports of Churchill and Prince Rupert; the potential for another round of corporate mergers and acquisitions; and the possible variation of grain flows within North America itself.

- In the wake of the concerns that had been raised by a wide number of shippers regarding the state of railway service in Canada, the federal government committed itself in 2008 to an examination of the country's freight logistics system, with an eye towards identifying any systemic problems or issues with railway service. The panel charged with this review submitted its final report to the Minister of State (Transport) in late December 2010, with its public release following in March 2011. In broad terms, the panel found that there was an imbalance in the commercial relationship between the railways and other stakeholders, but believed that a commercial – rather than a regulatory – approach provided the best means of rectifying this imbalance. On the whole, the federal government accepted the panel's recommendations, promising a four-point course of action encompassing: a six-month facilitated process to negotiate a template service agreement and commercial dispute resolution mechanism; the introduction of a bill in Parliament that would give shippers the right to a service agreement; and to establish a Commodity Supply Chain Table that would address logistical concerns and develop performance metrics to improve competitiveness. Also, Transport Canada and Agriculture and Agri-Food Canada were to initiate an in-depth analysis of the grain supply chain.

- The federal Minister of Finance announced in early October 2010 that the Canadian government had decided to waive its long-standing 25% customs duty on all general cargo vessels and tankers, as well as ferries longer than 129 metres, imported into the country. The measure, which was to be applicable on any ship imported into the country from 1 January 2010 onwards, was aimed chiefly at aiding Canada's marine transportation industry with the renewal of its aging fleet of vessels. By December 2010 it appeared that the change in governmental policy was beginning to have its desired effect. Algoma Central Corporation, the operator of one of Canada's largest domestic vessel fleets, announced that it had entered into a contract with a Chinese shipyard for the construction of four new dry bulk lake freighters. Surprisingly, it also spurred the Canadian Wheat Board into placing an order for two vessels of its own, with the estimated cost of $65 million to be spread out over four crop years. Despite an estimated financial return of $10 million annually, the investment came under fire from a number of farmer groups, with many arguing that it constituted an inappropriate use of the CWB's funds. Casting an even longer shadow over the project was the uncertainty that came from the federal government's planned change in the mandate of the CWB, and whether this would prompt a cancellation of the vessel order.

- Following several years of study, and the placement of new emphasis on reducing costs, the Montreal Port Authority (MPA) decided to seek a private operator for its 262,000-tonne grain terminal. Unlike other terminal elevators in Canada, all of which are privately operated, the Montreal facility had remained under the management of the MPA since its construction in the early 1960s. Moreover, this had increasingly come to be viewed as a commercial disadvantage by the MPA, which was desirous of improving Montreal's competitive position. Building on its formal Call for an Expression of Interest, the MPA revealed in late January 2011 that it had entered into discussions with Canada's largest grain handler, Viterra, Inc., concerning a management takeover of the facility. This was followed in April 2011 with the announcement that the two parties had in fact signed an

agreement that would see Viterra lease the MPA grain terminal, and take over its operation effective 1 July 2011. For Viterra, taking over the MPA grain terminal presented the company with an opportunity to fill a void in its own network, extending its physical reach beyond the terminals it already owned on the west coast and at Thunder Bay, Ontario.

## SYSTEM EFFICIENCY AND PERFORMANCE

Although the grain supply declined by 6.7%, to 61.3 million tonnes from 65.7 million tonnes a year earlier, the demands placed on the GHTS proved comparable to that exhibited a year earlier. Unfortunately, system performance declined noticeably as a result of the significant operating challenges that confronted CP in the 2010-11 crop year.

- The overall amount of time involved in moving grain through the supply chain rose by 0.3% in the 2010-11 crop year, to an average of 52.3 days from the previous crop year's 52.2-day average. This was the product of a 0.3-day increase in the amount of time spent by grain in storage at a country elevator, a 0.5-day increase in the railways' loaded transit time, and a 0.7-day reduction in terminal-elevator storage time. Even with this minor increase, grain still spent 15.8 fewer days moving through the GHTS than it did in the GMP's base year.

- Many of the problems that undermined the GHTS's performance in the first quarter only grew in the second and third. Although much of this was rooted in the disruptive effects of harsh winter weather on CP's operations through the Rockies, it served only to compound the delays and car-supply problems that had already been plaguing the carrier's customers since the beginning of the crop year. The most visible consequences of this were the growing delays to ships awaiting the arrival of CP grain trains at Vancouver. However, by the fourth quarter the situation was much improved, with the fluidity of the system having been largely restored.

## PRODUCER IMPACT

All of the data assembled since the beginning of the GMP has consistently shown that the financial returns arising to producers have been heavily influenced by the prevailing price of grain. While the export basis has unquestionably risen over time, it is the prevailing price of the commodity that continues to have the most sway over these returns. This was equally true of the 2010-11 crop year, where rising grain prices were chiefly responsible for a substantive improvement in the producer's netback.

- The producer's netback for CWB grains rose sharply in the 2010-11 crop year, with a 58.1% increase on 1CWRS wheat producing a return of $286.23 per tonne, and a 59.9% increase on 1CWA durum yielding a return of $245.55 per tonne. Detracting somewhat from these gains were the increases in the export basis of both commodities, with that of wheat rising by 11.4% to $73.35 per tonne, and that of durum rising by 12.4% to $89.36 per tonne.

- Much the same was in evidence for the netback on non-CWB commodities. An increase of 36.8% on 1 Canada canola lifted the producer's netback to a GMP record of $512.22 per tonne, and a 16.5% increase for large yellow peas raised its yield to $213.63 per tonne. Increases in the export basis, however, detracted somewhat from these gains, with that of canola rising by 6.9% to $53.14 per tonne, while that of large yellow peas rose by 8.3% to $84.86 per tonne.

Producer-car loading has increased substantially since the beginning of the GMP. This has come about as a result of many factors, not the least of which has been the formation of producer-car loading groups. These range from small groups loading cars with mobile augers on a designated siding, to more sophisticated organizations with significant investments in fixed trackside storage and carloading facilities. A number have even expanded beyond these operations, forging new shortline railways to connect them with the larger Class 1 carriers.

- The number of producer-car loading sites situated throughout western Canada has declined sharply since the beginning of the GMP, falling to 365 from 709. The 2010-11 crop year witnessed a net reduction of 13 sites, which incorporated an 18-site decrease in those operated by the Class 1 carriers, and an increase of five for Class 2 and 3 carriers.

- Even in the face of reduced producer-car-loading sites, producer-car shipments have almost quadrupled under the GMP. Producer-car shipments increased by 6.9% in the 2010-11 crop year, rising to 13,041 carloads from 12,198 carloads a year earlier.

# Section 1: Production and Supply

| | | | | | 2010-11 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Indicator Description** | **Table** | **1999-00** | **2008-09** | **2009-10** | **Q1** | **Q2** | **Q3** | **Q4** | **YTD** | **% VAR** |
| **Production and Supply** | | | | | | | | | | |
| Crop Production (000 tonnes) | 1A-1 | 55,141.7 | 60,351.7 | 56,144.2 | 50,071.2 | | | | 50,071.2 | -10.8% |
| Carry Forward Stock (000 tonnes) | 1A-2 | 7,418.2 | 5,646.6 | 9,515.3 | 11,200.1 | | | | 11,200.1 | 17.7% |
| Grain Supply (000 tonnes) | | 62,559.9 | 65,998.3 | 65,659.5 | 61,271.3 | | | | 61,271.3 | -6.7% |
| Crop Production (000 tonnes) – Special Crops | 1A-3 | 3,936.7 | 5,157.4 | 5,573.7 | 5,617.4 | | | | 5,617.4 | 0.8% |

## PRODUCTION AND SUPPLY

The 2010 growing season began poorly, with extensive rains blanketing much of western Canada. Grain growers were forced to defer seeding an estimated 10.5 million acres of land across the prairies until early June 2010. Although significant inroads were subsequently made, it was not supported by hot, dry weather. Rather, record or near-record rainfalls continued to frustrate farmers throughout much of the remaining growing season.

To compound matters further, the pace of harvesting was slowed by a cool and wet fall, which also included a mid September frost. Not surprisingly, these forces had a negative impact, ultimately reducing both the comparative size and quality of the crops brought in from the field. In point of fact, the quality profile proved to be one of the lowest ever faced by the industry. Wheat was particularly hard hit, with just slightly more than a third of the harvested tonnage meeting the standards set out for the top two grades.[1]

Despite this, overall grain production for the 2010-11 crop year amounted to 50.1 million tonnes.[2] While this represented a 10.8% reduction from the previous crop year's 56.1 million tonnes, it still ranked as the seventh largest crop recorded under the GMP. Moreover, it was consistent with the 50.4-million-tonne average produced during this same period. [Table 1A-1]

**Figure 1: Precipitation Compared to Historical Distribution (1 April to 31 August 2010)**

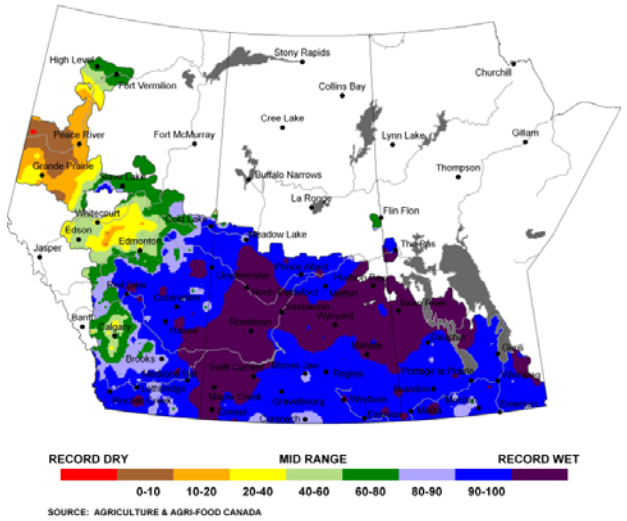
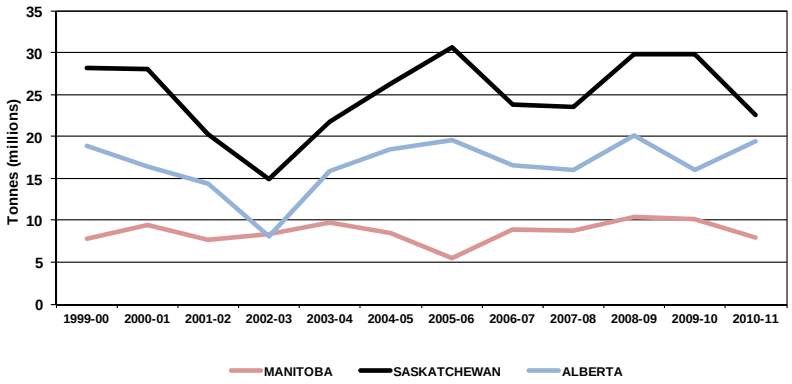



**Figure 2: Provincial Grain Production**




1 Only 38% of Canada Western Red Spring wheat ranked among the two top grades, compared to 68% normally. The situation was even worse for Canada Western Amber Durum, where only 21% of the crop ranked in the top two grades, versus 57% generally.

2 Total crop production was reported in the Monitor's first and second quarter reports as 48.8 million tonnes. Owing in large measure to a revision in its estimate of canola production, this value was later raised by Statistics Canada to 50.1 million tonnes.

## Provincial Distribution

Much of the reduction was concentrated in Saskatchewan and Manitoba, where production fell by a combined 9.4 million tonnes. The most sizeable loss was registered by Saskatchewan, where production fell by 7.2 million tonnes, or 24.2%, to 22.6 million tonnes from 29.9 million tonnes a year earlier. This was amplified by a 2.2-million-tonne decline in Manitoba, where output slumped by 21.6%, to 7.9 million tonnes from 10.1 million tonnes. Widening these losses by another 49,700 tonnes was British Columbia, where production fell by 26.0%, to 141,100 tonnes from 190,800 tonnes.

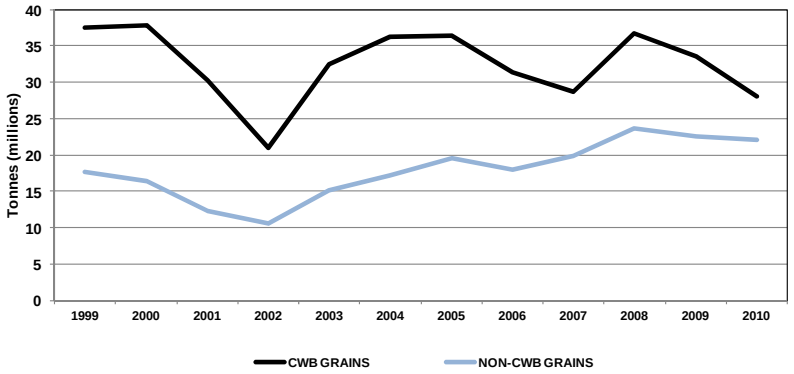
Running counter to these tonnage losses was a 21.2% gain for Alberta, which saw production rise to 19.4 million tonnes from 16.0 million tonnes a year earlier. This anomaly was largely occasioned by the return of better growing conditions in that province.

## Commodity Distribution

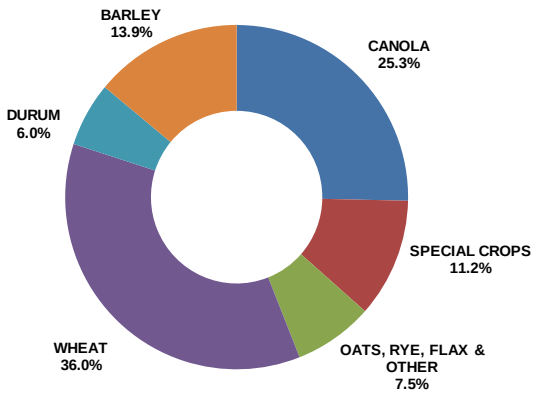
The decline in grain production was reflected in the reduced output of all major crops. CWB grains posted the largest relative loss, with a decrease of 16.5% as compared to 2.3% for non-CWB grains. With production falling by 5.5 million tonnes, to 28.0 million tonnes from 33.6 million tonnes a year earlier, CWB grains laid claim to over 90% of the overall reduction. In comparison, the decline in non-CWB grain production, which fell to 22.0 million tonnes from the previous crop year's 22.6 million tonnes, enhanced these losses by another 523,700 tonnes.

The decline in CWB-grain production was largely shaped by a 44.0% reduction in the amount of durum harvested, which fell to 3.0 million tonnes from 5.4 million tonnes a year earlier. This was supported by a 21.7% reduction in barley production, with output falling to 7.0 million tonnes from 8.9 million tonnes the year previous. A 6.4% decrease in wheat production contributed another 1.2 million tonnes to the shortfall.

### Figure 3: Grain Production – CWB and Non-CWB Grains




### Figure 4: Major Grain Production – 2010-11 Crop Year



With 12.7 million tonnes of production, canola accounted for more than half of the 22.0 million tonnes of non-CWB grains harvested in the 2010-11 crop year. Moreover, a 330,000-tonne increase in the size of the canola crop served to offset much of the decline amassed by the reduced production of other non-CWB grains. Among the more notable of these reductions were those for flaxseed, which fell by 507,100 tonnes; oats, 466,900 tonnes; and dry peas, 361,200 tonnes.

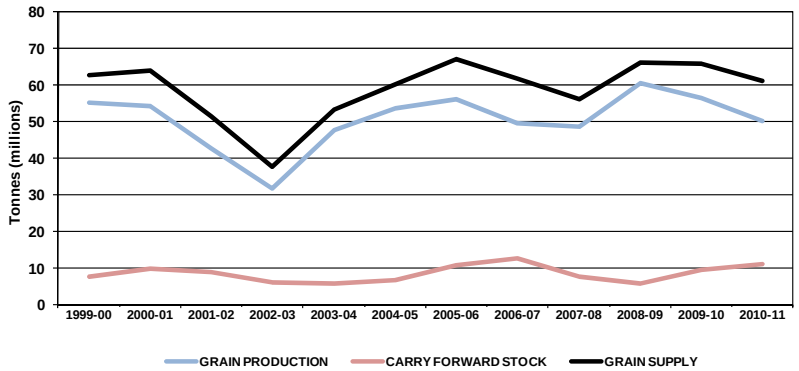
## Special Crops

Special crop production remained largely unchanged at 5.6 million tonnes, increasing by just 0.8%.[3] However, this result was shaped by a broad mix of individual gains and losses. The most influential gain came from the production of lentils, which rose by 28.9%, to 1.9 million tonnes from 1.5 million tonnes a year earlier. Complementing this was a 69.9% increase in chickpea production, which added a further 52,800 tonnes to the mix. The largest offset to these gains came from dry peas – the sector's largest single crop – which posted a 10.7% reduction, falling to 3.0 million tonnes from 3.4 million tonnes a year earlier This was widened by the losses for a host of other commodities, including mustard seed, canary seed, sunflower seed and dry beans. [Table 1A-3]

## Carry-Forward Stock and Western Canadian Grain Supply

While grain production has the most immediate impact on the grain supply, it is also affected by the amount of grain held over in inventory from the previous crop year. In fact, carry-forward stocks typically account for about one-sixth of the overall grain supply.[4] These stocks tend to move in conjunction with changes in grain production, albeit on a lagging basis.

**Figure 5: Western Canadian Grain Supply**




Totalling some 11.2 million tonnes, the carry-forward stocks proved to be 17.7% greater than the 9.5 million tonnes reported a year earlier. Much of the impetus for this increase came from mounting global grain supplies, particularly for wheat and durum, which also contributed to the softening of commodity prices. When combined with new production, this raised the grain supply to 61.3 million tonnes, a reduction of 6.7% from the previous crop year's 65.7 million tonnes. [Table 1A-2]

The change in carry-forward stocks was almost entirely shaped by a 33.2% increase for Saskatchewan. In fact, the additional 1.7 million tonnes carried forward by that province nominally exceeded the western-Canadian gain by a margin of 500 tonnes. In comparison, the next largest year-over-year change in tonnage was attributable to Manitoba, which declined by 1.5%, or 19,800 tonnes.

3 For the purposes of the GMP, special crops are defined as including the following: dry peas; lentils; mustard seed; canary seed; chickpeas; dry beans; sunflower seed; safflower seed; buckwheat; and fababeans. An often referenced subset of special crops, known as pulse crops, encompasses dry peas, lentils, chickpeas, dry beans and fababeans.

4 Carry-forward stocks are defined as inventories on hand, be it on farms or at primary elevators, at the close of any given crop year (i.e., 31 July). As such, they are also deemed to be the stocks on hand as the new crop year begins (i.e., 1 August).

# Section 2: Traffic and Movement

| Indicator Description | Table | 1999-00 | 2008-09 | 2009-10 | 2010-11 Q1 | Q2 | Q3 | Q4 | YTD | % VAR |
|---|---|---|---|---|---|---|---|---|---|---|
| **Country Elevator Throughput** | | | | | | | | | | |
| Grain Throughput (000 tonnes) – Primary Elevators | 2A-1 | 32,493.9 | 35,349.1 | 33,861.4 | 8,240.0 | 7,729.4 | 7,970.6 | 8,330.4 | 32,270.4 | -4.7% |
| | | | | | | | | | | |
| **Railway Traffic** | | | | | | | | | | |
| Railway Shipments (000 tonnes) – All Grains | 2B-1 | 26,439.2 | 27,338.4 | 28,443.8 | 7,551.1 | 6,685.7 | 6,416.4 | 7,354.5 | 28,007.8 | -1.5% |
| Railway Shipments (000 tonnes) – Hopper Cars | 2B-1 | 25,664.6 | 26,792.6 | 27,777.8 | 7,303.9 | 6,399.4 | 6,216.8 | 7,176.5 | 27,096.7 | -2.5% |
| Railway Shipments (000 tonnes) – Non-Hopper Cars | 2B-1 | 774.7 | 545.8 | 666.0 | 247.2 | 286.3 | 199.7 | 178.0 | 911.1 | 36.8% |
| Special Crop Shipments (000 tonnes) – All Grains | 2B-2 | 2,102.9 | 2,945.4 | 2,718.9 | 1,100.6 | 801.9 | 939.5 | 682.7 | 3,524.7 | 29.6% |
| Special Crop Shipments (000 tonnes) – Hopper Cars | 2B-2 | 1,844.1 | 2,851.8 | 2,665.3 | 1,087.9 | 788.1 | 930.1 | 674.6 | 3,480.6 | 30.6% |
| Special Crop Shipments (000 tonnes) – Non-Hopper Cars | 2B-2 | 258.7 | 93.6 | 53.5 | 12.7 | 13.8 | 9.4 | 8.2 | 44.2 | -17.5% |
| Hopper Car Shipments (000 tonnes) – Origin Province | 2B-3 | | | | | | | | | |
| Hopper Car Shipments (000 tonnes) – Primary Commodities | 2B-4 | 25,664.6 | 26,792.6 | 27,777.8 | 7,303.9 | 6,399.5 | 6,216.8 | 7,176.5 | 27,096.7 | -2.5% |
| Hopper Car Shipments (000 tonnes) – Detailed Breakdown | 2B-5 | | | | | | | | | |
| Hopper Car Shipments (000 tonnes) – Grain-Dependent Network | 2B-6 | 8,685.9 | 7,597.9 | 8,741.9 | 2,315.8 | 1,908.7 | 1,639.4 | 1,809.0 | 7,672.8 | -12.2% |
| Hopper Car Shipments (000 tonnes) – Non-Grain-Dependent Network | 2B-6 | 16,978.7 | 19,194.7 | 19,035.9 | 4,988.2 | 4,490.8 | 4,577.4 | 5,367.5 | 19,423.8 | 2.0% |
| Hopper Car Shipments (000 tonnes) – Class 1 Carriers | 2B-7 | 23,573.5 | 26,019.6 | 26,945.8 | 7,028.7 | 6,170.0 | 6,010.4 | 6,936.5 | 26,145.6 | -3.0% |
| Hopper Car Shipments (000 tonnes) – Non-Class-1 Carriers | 2B-7 | 2,091.0 | 773.0 | 832.0 | 275.3 | 229.4 | 206.4 | 240.0 | 951.0 | 14.3% |
| | | | | | | | | | | |
| **Terminal Elevator Throughput** | | | | | | | | | | |
| Grain Throughput (000 tonnes) – All Commodities | 2C-1 | 23,555.5 | 25,639.0 | 25,760.4 | 6,392.9 | 6,461.6 | 5,625.9 | 6,947.7 | 25,428.1 | -1.3% |
| Hopper Cars Unloaded (number) – All Carriers | 2C-2 | 278,255 | 294,335 | 286,630 | 74,792 | 69,691 | 64,045 | 74,573 | 283,101 | -1.2% |
| Hopper Cars Unloaded (number) – CN | 2C-2 | 144,800 | 144,943 | 144,894 | 37,795 | 40,642 | 38,423 | 34,694 | 151,554 | 4.6% |
| Hopper Cars Unloaded (number) – CP | 2C-2 | 133,455 | 149,392 | 141,736 | 36,997 | 29,049 | 25,622 | 39,879 | 131,547 | -7.2% |

## COUNTRY ELEVATOR THROUGHPUT

Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by 4.7% in the 2010-11 crop year, falling to 32.3 million tonnes from 33.9 million tonnes a year earlier. This 1.6-million-tonne decline had a broad geographic base, with the majority of producing provinces reporting sharply lower throughputs.

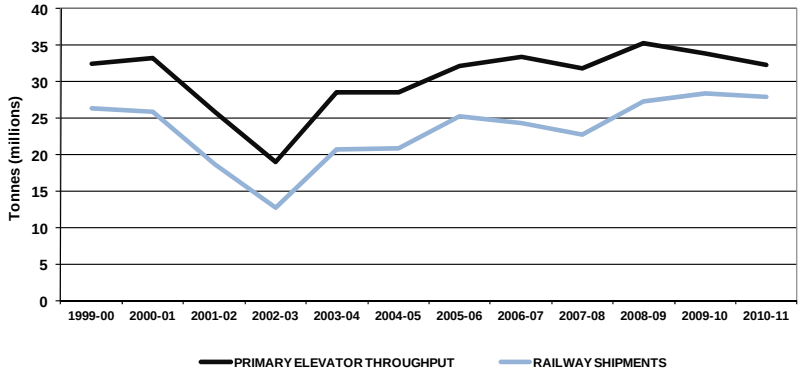
With a 2.2-million-tonne reduction in throughput, Saskatchewan led the list of decliners, reporting shipments of 15.3 million tonnes against 17.5 million tonnes a year earlier. Manitoba reported the second largest loss, with throughput falling by 1.4 million tonnes, to 5.4 million tonnes from 6.8 million tonnes. Expanding this list with a 50,500-tonne decrease was British Columbia, where shipments fell to 187,200 tonnes from 237,700 tonnes.

With a gain of 2.1 million tonnes, Alberta was the only province to post an increase in throughput, with its shipments rising by 22.3%, to a GMP record of 11.5 million tonnes, from 9.4 million tonnes the previous year. Its worth noting that, from a 5.3% increase in the first quarter, this gain grew steadily through to the close of the crop year. Although much of this rise reflected the province's increase in production, it was also shaped – at least in part – by an unusual influx in extraprovincial grain shipments. This was spurred in large measure by shippers who decided to draw more grain into their CN-served facilities in an effort to circumvent the operational problems that were being experienced by CP in the second and third quarters. [Table 2A-1]

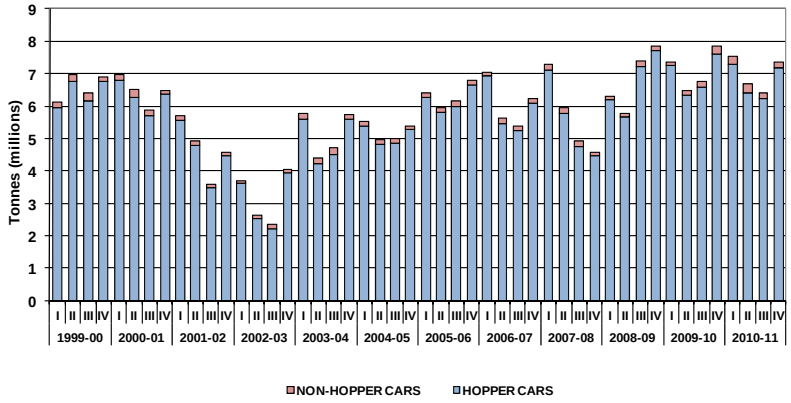
## RAILWAY TRAFFIC

The amount of regulated grain moved by rail to western Canadian ports decreased by 1.5% in the 2010-11 crop year, with the total volume falling to 28.0 million tonnes from 28.4 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 27.1 million tonnes, moved in covered hopper cars. The remaining 911,100 tonnes moved in

### Figure 6: Primary Elevator Throughput




### Figure 7: Railway Shipments – Hopper and Non-Hopper Cars



different forms of railway equipment, the most predominant being containers. With a 36.8% rise in these latter movements, the tonnage accruing to non-hopper-car shipments rose to 3.3% from 2.3% a year earlier. [Table 2B-1]

Special-crop shipments also posted a sharp gain in volume, rising by 29.6%, to 3.5 million tonnes from 2.7 million tonnes a year earlier. As with other grains, the vast majority of this tonnage, 98.7%, moved to export position in hopper cars. In fact, the proportion given over to non-hopper-car movements continued to decline. Whereas 19.2% of the special crops shipped in the 2002-03 crop year moved in containers and other forms of railway equipment, only 1.3% did so in the 2010-11 crop year. Moreover, such shipments reached a GMP low of just 44,200 tonnes, a reduction of 17.5% from the 53,500 tonnes moved a year earlier. [Table 2B-2]

## Hopper Car Movements

Western Canadian hopper-car shipments decreased by 2.5% in the 2010-11 crop year, to 27.1 million tonnes from 27.8 million tonnes. This reduction proved noticeably less than either the 10.8% decline in grain production or the 6.7% decrease in the overall grain supply, and was largely shaped by reduced shipments from most producing provinces.

The most sizable of these was posted by Saskatchewan, where shipments fell by 1.9 million tonnes, or 13.1%, to 12.8 million tonnes. Manitoba posted a 15.6% reduction in volume, with shipments declining by a substantively lesser 576,000 tonnes, to 3.1 million tonnes from 3.7 million tonnes a year earlier. British Columbia followed suit with a 72,700-tonne, or 21.2%, reduction, with shipments falling to 270,600 tonnes from 343,300 tonnes.

Countering a large proportion of these losses was an increase in hopper-car movements from Alberta, which climbed by 1.9 million tonnes, or 20.9%. The 10.9 million tonnes forwarded from Alberta constituted the

**Figure 8: Railway Hopper Car Shipments – Destination Port**

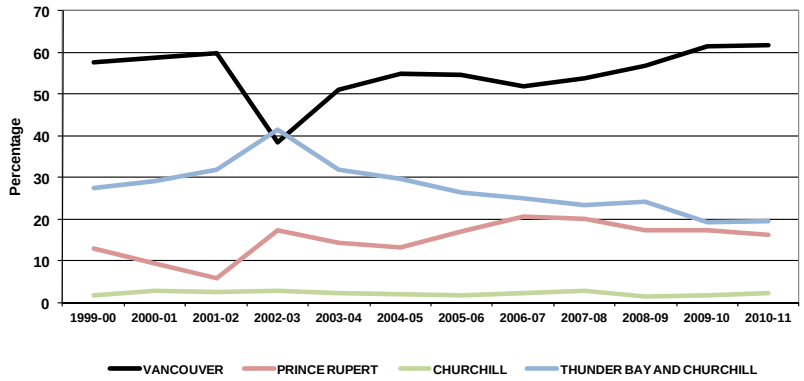
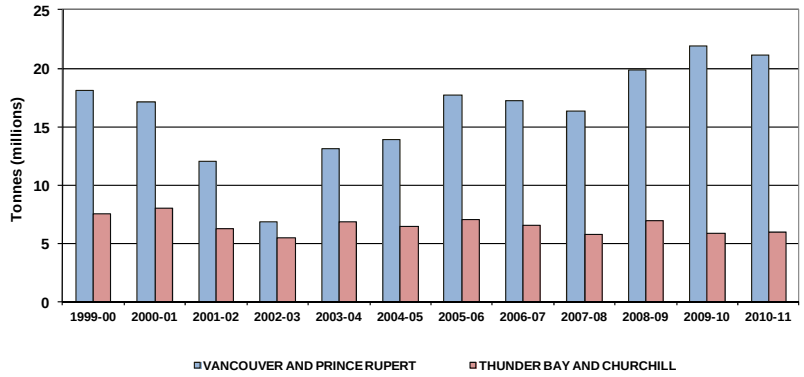



**Figure 9: Railway Hopper Car Shipments – West-Coast Orientation**



largest yet observed under the GMP, easily surpassing the 9.9-million-tonne record set just two years earlier. [Tables 2B-3 through 2B-5]

## Destination Ports

The port of Vancouver remained the principal export destination for western Canadian grain in the 2010-11 crop year. Traffic to Vancouver totalled 16.7 million tonnes, falling by 2.2% from the 17.1 million tonnes directed there a year earlier. Despite this reduction, the port's share of railway shipments remained largely unchanged, rising marginally to 61.7% from 61.6%. The volume of traffic directed to Prince Rupert also declined, albeit by a somewhat more substantive 7.4%, to 4.4 million tonnes from 4.8 million tonnes. This also occasioned a reduction in the share given over to Prince Rupert, which fell to 16.4% from 17.2%. Despite these declines, the GHTS's west coast ports still handled 78.1% of the grain moved to export position in covered hopper cars, a modest loss over the 78.8% share garnered the year previous.

Owing to the gains made by the west-coast ports in recent years, the volume and share of traffic directed to Thunder Bay has largely been declining. Although the port saw a 1.5% decrease in rail shipments in the 2010-11 crop year, it still ranked as the second largest destination for export grain, receiving 5.3 million tonnes against 5.4 million tonnes a year earlier. In contrast, rail shipments to Churchill increased by 25.9%, climbing to 635,700 tonnes from 505,000 tonnes. This translated into a marginally greater share for the port, 2.3% as compared to 1.8% a year earlier.

The dominance of the west-coast ports is deeply rooted in Canada's Asia-Pacific grain trade. And while there can be little doubt that freight rates and the allocation of railcars have had some influence over the comparative use of both Vancouver and Prince Rupert at various points in time, the amount of grain exported through these west-coast ports largely reflects the demand arising from foreign grain sales. Moreover, with countries in the Asia-Pacific region accounting for about half of Canada's

**Figure 10: Hopper Car Shipments – Change in Network Originations**

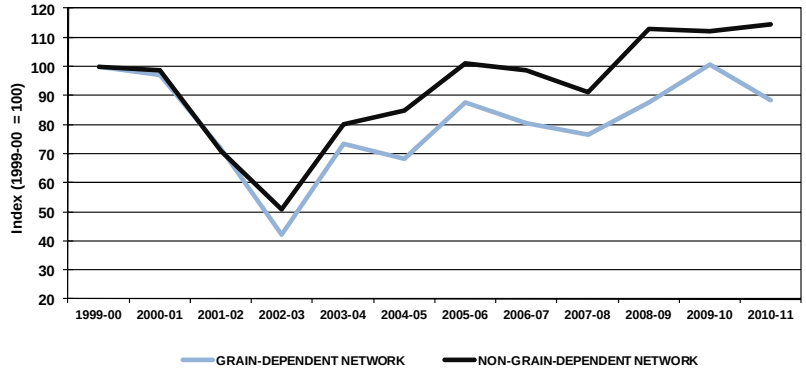
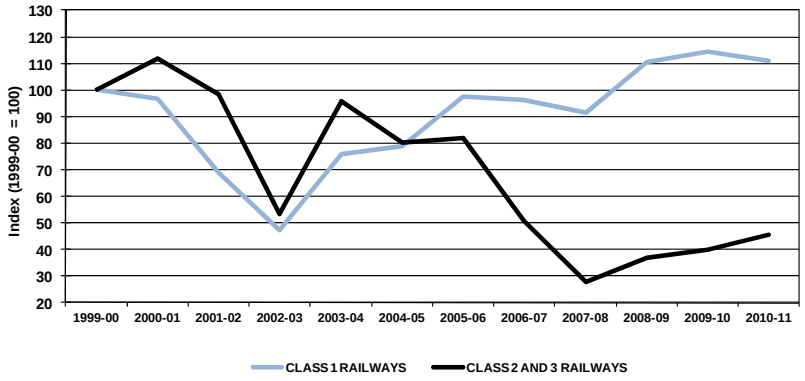



**Figure 11: Hopper Car Shipments – Change in Railway Originations**



grain exports, it appears likely that the role given to the west-coast ports will not soon diminish.

### Grain-Dependent and Non-Grain-Dependent Originations

Traffic moved by the GHTS continues to reflect the changes that have been made to both the elevator and railway networks as a result of rationalization. In the 2010-11 crop year, the tonnage originated by the non-grain-dependent network increased 2.0%, to 19.4 million tonnes from 19.0 million tonnes a year earlier. At the same time, traffic originating at points on the grain-dependent network decreased by 12.2%, to 7.7 million tonnes from 8.7 million tonnes.

As these results underscore, the non-grain-dependent network continues to garner a larger share of the overall traffic volume. With the close of the 2010-11 crop year, 71.7% of all the grain originated in western Canada was forwarded from points on the non-grain-dependent network. Still, this value stands only marginally ahead of the 66.2% share earned in the GMP's base year. Of course, the reverse is true of the traffic originated by the grain-dependent network, with its relative share having fallen to 28.3% from a benchmark 33.8% over the same span of time. [Table 2B-6]

### Class 1 and Non-Class-1 Originations

The same structural influences are also apparent in the volumes of grain originated by the Class 1 and non-Class-1 railways. Nominally, the tonnage originated by the Class 1 carriers decreased by 3.0% in the 2010-11 crop year, while the volume originated by the smaller, non-Class-1 carriers increased by 14.3%. Although the tonnage increases enjoyed by several recently established shortlines figured into this latter gain, much of the rise could be traced to the August 2010 start-up of the Stewart Southern Railway. Despite this, the tonnage originated by non-Class 1 carriers has been halved over the course of the GMP, to claim just 3.5% of the total volume against a benchmark 8.1% share in the GMP's base year. [Table 2B-7]

Even so, the 54.5% decline in shortline originations has not been as steep as the 63.5% reduction in the number of licensed elevators served by them. In fact, the data suggests that increased producer-car loading has been instrumental in offsetting a sizable portion of the volume that otherwise would have been lost following the closure of these facilities. By current estimates, producer-car shipments now constitute about half of the traffic originated by these carriers, more than three times what was observed in the first year of the GMP.

## TERMINAL ELEVATOR THROUGHPUT

Port throughput, as measured by the volume of grain shipped from the terminal elevator and bulk loading facilities located at Canada's four western ports, totalled 25.4 million tonnes in the 2010-11 crop year. This proved 1.3% below the record-setting GMP volume of 25.8 million tonnes shipped a year earlier. [Table 2C-1]

Shipments through the west coast ports of Vancouver and Prince Rupert declined marginally, largely as a result of lower volumes in the third and fourth-quarters. For the largest of these, Vancouver, total marine shipments fell by 2.2%, to 15.0 million tonnes from 15.3 million tonnes a year earlier. This represented 58.8% of the GHTS's total throughput. At Prince Rupert, shipments fell by a slightly greater 3.6%, to 4.5 million tonnes from 4.7 million tonnes. When combined, the tonnage passing through these two west coast ports represented 76.6% of the overall total, a marginal decline from the 77.6% share garnered a year earlier. Moreover, this denoted the first reduction in the west coast's share in five years

Correspondingly, the loss noted for the west coast ports was reflected in a marginal gain for the GHTS's eastern gateways, with the combined share secured by the ports of Thunder Bay and Churchill rising to 23.4% from 22.4% a year earlier. Even so, this represented a significant reduction from the benchmark 31.2% share recorded in the GMP's base year. Throughput at Thunder Bay increased by 0.9% in the 2010-11 crop year, rising to 5.3 million tonnes from the previous crop year's 5.2 million

tonnes. However, Churchill, the port traditionally having the lowest volume, saw its throughput soar by 24.2%, climbing to 657,500 tonnes from 529,600 tonnes.

## Terminal Elevator Unloads

The number of covered hopper cars unloaded at terminal elevators decreased by 1.2% in the 2010-11 crop year, to 283,101 cars from 286,630 cars a year earlier. In addition, there was a pronounced shift in the amount of traffic handled by CN and CP. CN increased the number of cars it unloaded by 4.6%, to 151,554 from 144,894. Conversely, CP's handlings fell by 7.2%, to 131,547 cars from 141,736 cars. This made CN the largest grain handler in western Canada, with an overall share of 53.5% against 46.5% for CP.

The most telling facet of this shift was its progressive nature, which saw CN's share rise from 50.5% in the first quarter to a more substantive 60.0% in the third, before then pulling back to 46.5% in the fourth. This steady gain largely paralleled the mounting frustration of shippers with the deterioration in CP's service since the beginning of the crop year, many of whom began to funnel more grain into their CN-served elevators.

Until volumes slumped significantly in the fourth quarter, traffic into Vancouver moved at a record-setting pace. Nevertheless, the number of cars unloaded at Vancouver fell by 1.9%, to 170,305 from 173,569. Still, CN profited from the change in shipper sentiment, increasing its handlings into the port by 12.1%, unloading a record 80,970 cars and garnering a 47.5% market share. Conversely, CP saw its handlings decline by 11.9%, to 89,335 cars, and its share slip to 52.5% from 58.4% a year earlier.

Much the opposite was true of movements into Prince Rupert, which fell by 51.2% in the first quarter. However, as Vancouver began to struggle, a greater proportion of the west-coast grain volume began to make its way to this CN-served port. This became particularly evident in the second and third quarters as shipments to Prince Rupert also surged to record-

Figure 12: Terminal Elevator Throughput

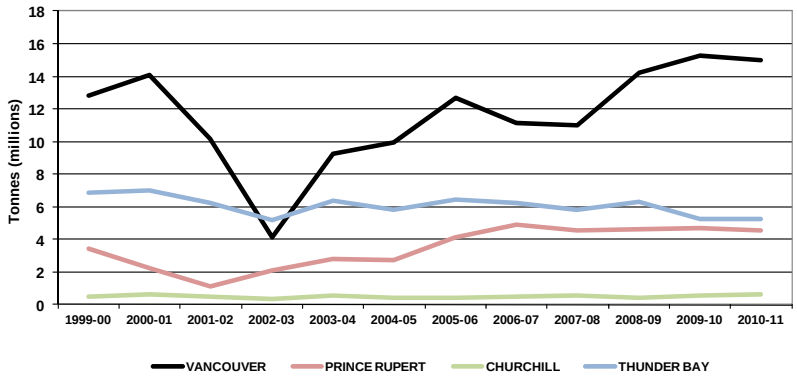
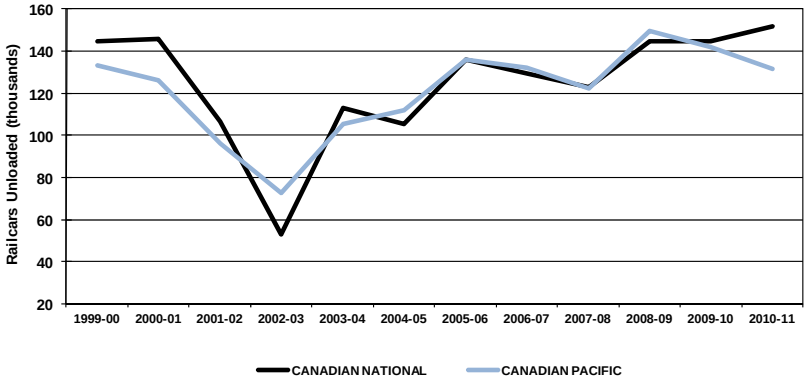



Figure 13: Terminal Elevator Unloads – Delivering Carrier



vying levels. By the close of the crop year, this accretion had trimmed Prince Rupert's traffic loss to just 5.5%, with total unloads falling to 47,861 cars from 50,639 cars a year earlier.

There was little real change in the market shares accorded to both carriers on traffic moving through the eastern gateways. For the largest of these, Thunder Bay, total handlings increased by 1.6%, to 57,940 cars unloaded from 57,015 cars a year earlier. With an unchanged market share of 70.3%, CP remained the dominant carrier in this corridor, actually increasing its handlings into the port by 1.6%, to 40,711 cars unloaded from 40,088 cars. In comparison CN saw its handlings into Thunder Bay increase by 1.8%, to 17,229 cars unloaded from 16,927 cars a year earlier.

Adding to the positions of both carriers was a 29.4% rise in the volume of traffic directed to Churchill, where total unloads reached a GMP record of 6,995 cars. Although CN originated 78.5% of the inbound traffic, this was down from the 94.5% market share secured a year earlier. This decline was entirely attributable to a four-fold increase in CP originations, which elevated the carrier's market share to 21.5% from 5.5%. [Table 2C-2]

# Section 3: Infrastructure

| Indicator Description | Table | 1999-00 | 2008-09 | 2009-10 | 2010-11 Q1 | Q2 | Q3 | Q4 | YTD | % VAR |
|---|---|---|---|---|---|---|---|---|---|---|
| **Country Elevator Infrastructure** | | | | | | | | | | |
| Delivery Points (number) | 3A-1 | 626 | 273 | 274 | 273 | 273 | 273 | 273 | 273 | -0.4% |
| Elevator Capacity (000 tonnes) | 3A-1 | 7,443.9 | 6,060.3 | 6,343.3 | 6,434.7 | 6,434.7 | 6,434.7 | 6,369.4 | 6,369.4 | 0.4% |
| Elevators (number) – Province | 3A-1 | | | | | | | | | |
| Elevators (number) – Railway Class | 3A-2 | 917 | 367 | 366 | 367 | 367 | 367 | 366 | 366 | 0.0% |
| Elevators (number) – Grain Company | 3A-3 | | | | | | | | | |
| Elevators Capable of MCB Loading (number) – Province | 3A-4 | | | | | | | | | |
| Elevators Capable of MCB Loading (number) – Railway Class | 3A-5 | 317 | 243 | 243 | 242 | 242 | 242 | 241 | 241 | -0.8% |
| Elevators Capable of MCB Loading (number) – Railway Line Class | 3A-6 | | | | | | | | | |
| Elevator Closures (number) | 3A-7 | 130 | 30 | 21 | 11 | 11 | 11 | 13 | 13 | -38.1% |
| Elevator Openings (number) | 3A-8 | 43 | 18 | 20 | 12 | 12 | 12 | 13 | 13 | -35.0% |
| Delivery Points (number) – Accounting for 80% of Deliveries | 3A-9 | 217 | 89 | 90 | n/a | n/a | n/a | n/a | n/a | n/a |
| | | | | | | | | | | |
| **Railway Infrastructure** | | | | | | | | | | |
| Railway Infrastructure (route-miles) – Total Network | 3B-1 | 19,390.1 | 17,904.7 | 17,904.7 | 17,836.7 | 17,830.3 | 17,830.3 | 17,830.3 | 17,830.3 | -0.4% |
| Railway Infrastructure (route-miles) – Class 1 Network | 3B-1 | 14,503.0 | 15,493.4 | 15,403.7 | 15,255.9 | 15,249.5 | 15,249.5 | 15,249.5 | 15,249.5 | -1.0% |
| Railway Infrastructure (route-miles) – Non-Class-1 Network | 3B-1 | 4,887.1 | 2,411.3 | 2,501.0 | 2,580.8 | 2,580.8 | 2,580.8 | 2,580.8 | 2,580.8 | 3.2% |
| Railway Infrastructure (route-miles) – Non-Grain-Dependent Network | 3B-1 | 14,513.5 | 14,313.1 | 14,313.1 | 14,245.1 | 14,245.1 | 14,245.1 | 14,245.1 | 14,245.1 | -0.5% |
| Railway Infrastructure (route-miles) – Grain-Dependent Network | 3B-1 | 4,876.6 | 3,591.6 | 3,591.6 | 3,591.6 | 3,585.2 | 3,585.2 | 3,585.2 | 3,585.2 | -0.2% |
| Served Elevators (number) | 3B-3 | 884 | 347 | 347 | 350 | 350 | 350 | 349 | 349 | 0.6% |
| Served Elevators (number) – Class 1 Carriers | 3B-3 | 797 | 328 | 327 | 321 | 321 | 321 | 320 | 320 | -2.1% |
| Served Elevators (number) – Non-Class-1 Carriers | 3B-3 | 87 | 19 | 20 | 29 | 29 | 29 | 29 | 29 | 45.0% |
| Served Elevators (number) – Grain-Dependent Network | 3B-3 | 371 | 113 | 118 | 117 | 117 | 117 | 117 | 117 | -0.8% |
| Served Elevators (number) – Non-Grain-Dependent Network | 3B-3 | 513 | 234 | 229 | 233 | 233 | 233 | 232 | 232 | 1.3% |
| Served Elevator Capacity (000 tonnes) | 3B-3 | 7,323.0 | 5,981.9 | 6,254.7 | 6,356.0 | 6,356.0 | 6,356.0 | 6,290.7 | 6,290.7 | 0.6% |
| Served Elevator Capacity (000 tonnes) – Class 1 Carriers | 3B-3 | 6,823.2 | 5,861.7 | 6,130.8 | 6,184.3 | 6,184.3 | 6,184.3 | 6,119.0 | 6,119.0 | -0.2% |
| Served Elevator Capacity (000 tonnes) – Non-Class-1 Carriers | 3B-3 | 499.7 | 120.2 | 123.9 | 171.7 | 171.7 | 171.7 | 171.7 | 171.7 | 38.6% |
| Served Elevator Capacity (000 tonnes) – Grain-Dependent Network | 3B-3 | 2,475.4 | 1,611.1 | 1,742.7 | 1,755.6 | 1,755.6 | 1,755.6 | 1,755.6 | 1,755.6 | 0.7% |
| Served Elevator Capacity (000 tonnes) – Non-Grain-Dependent Network | 3B-3 | 4,847.6 | 4,370.8 | 4,512.0 | 4,600.5 | 4,600.5 | 4,600.5 | 4,535.1 | 4,535.1 | 0.5% |
| | | | | | | | | | | |
| **Terminal Elevator Infrastructure** | | | | | | | | | | |
| Terminal Elevators (number) | 3C-1 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 0.0% |
| Terminal Elevator Storage Capacity (000 tonnes) | 3C-1 | 2,678.6 | 2,475.6 | 2,475.6 | 2,475.6 | 2,475.6 | 2,475.6 | 2,475.6 | 2,475.6 | 0.0% |
| | | | | | | | | | | |

## COUNTRY ELEVATOR INFRASTRUCTURE

The decline in the number of licensed country elevators in western Canada remains one of the most visible facets of the GHTS's continuing evolution. At the outset of the 1999-2000 crop year, there were 1,004 licensed primary and process elevators on the prairies. Over the course of the next eleven years, this network would shrink to a third of its former size, to encompass a much fewer 366 facilities at the close of the 2009-10 crop year.[5] [Table 3A-1]

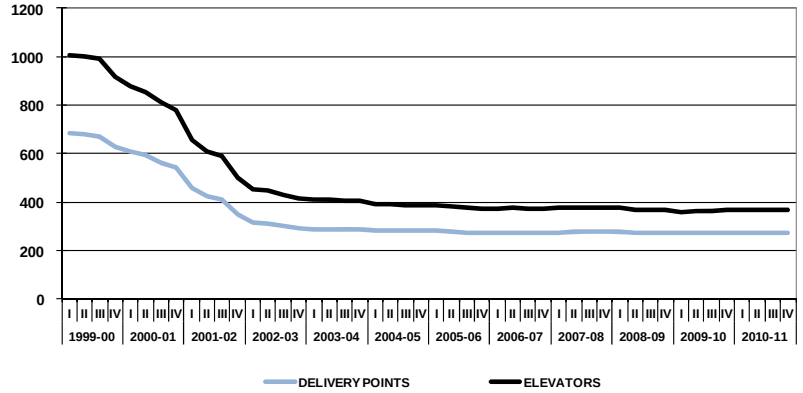
In the first three years of the GMP, this reduction proved quite rapid: with 87 facilities removed from the network in its first year; 136 in its second; and 281 in its third. But this accelerating pace clearly began to abate in the 2002-03 crop year, when only 84 elevators were removed from the system. Over the course of the next seven crop years, just 50 more facilities were removed from the network.

The 2010-11 crop year saw little material change to the elevator network in western Canada, with a one-elevator gain in the first quarter later offset by an equivalent loss in the fourth. As a result, the total number of elevators in place at the end of the crop year remained unchanged at 366, with an accumulated reduction of 63.5%, or 638 facilities, since the beginning of the GMP. Such limited scope of these recent changes continues to suggest that the elevator rationalization programs of the grain companies have largely drawn to an end.

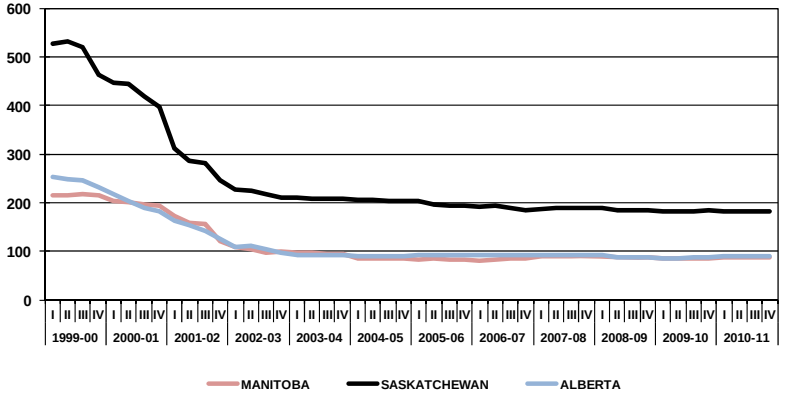
Much the same is true of the decline in grain delivery points, which have largely fallen in conjunction with the reduction in licensed elevators. By the close of the 2009-10 crop year the scope of this network had been reduced by 60.0%, to 274 delivery points from the 685 that had been in place at the beginning of the GMP. This was also reduced marginally in the 2010-11 crop year, with the overall number falling by one to 273, thus widening the net reduction over the past twelve crop years to 60.1%.

5 The reduction cited here reflects the net change in licensed elevators.

### Figure 14: Licensed Grain Elevators and Delivery Points




### Figure 15: Licensed Grain Elevators – Provincial Distribution



## Provincial Distribution

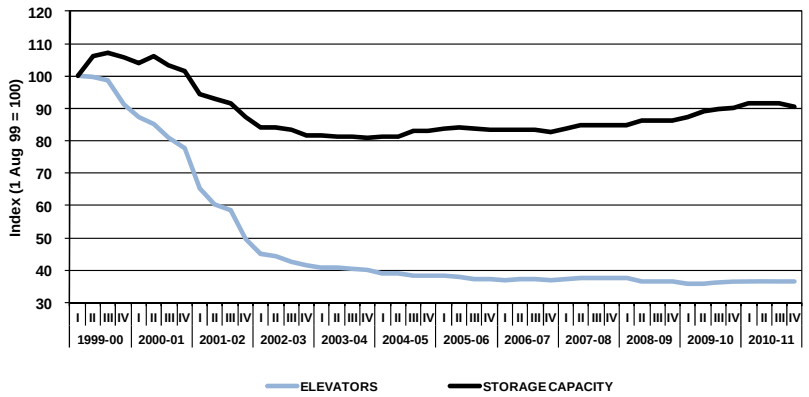
With the close of the 2010-11 crop year, 182 of western Canada's licensed elevators were situated in Saskatchewan. This constituted 49.7% of the system's active total, and proved to be consistent with the proportion held by the province at the beginning of the GMP. This was followed in succession by Alberta and Manitoba, whose respective 89 and 88 elevators each accounted for about another one-quarter. The GHTS's remaining seven facilities were divided between British Columbia, with six, and Ontario with one.

Saskatchewan posted the greatest numerical reduction in licensed facilities, with the closure of 345 elevators. This also constituted the largest relative decline in facilities among the prairie provinces, with a reduction of 65.5% since the beginning of the GMP. In comparative terms, the 163-elevator reduction posted by Alberta trailed only slightly, having fallen by 64.7% over the course of the GMP. Manitoba followed with a 59.3%, or 128-elevator, reduction in its facilities. The comparable nature of these reductions indicates that elevator rationalization has been broadly based, and that the facilities of any single province have not been unduly targeted.

## Elevator Storage Capacity

Despite the GHTS's 63.5% decline in country elevators, its associated storage capacity has only fallen by 9.4%. This lower decline rate simply reflects the fact that while grain companies were methodically closing their less-efficient smaller elevators, they were also opening and expanding larger ones. Although the capacity added through investment in larger facilities actually outpaced that removed by the closure of smaller elevators early in the GMP, the effect was not long lasting. Within just two crop years, system capacity was beginning to wane. By the end of the 2003-04 crop year, total GHTS storage capacity had fallen by 19.0% to 5.7 million tonnes.

**Figure 16: Change in Licensed Elevators and Storage Capacity**




This trend began to reverse itself in the 2004-05 crop year when the system's posted storage capacity saw an increase of 157,000 tonnes. By the close of the 2009-10 crop year, some five years later, the GHTS's total storage capacity had gradually risen to over 6.3 million tonnes. With another 26,100 tonnes added in the 2010-11 crop year, the system's total storage capacity was raised to almost 6.4 million tonnes. Moreover, this represented the largest value witnessed since the 2001-02 crop year.

## Facility Class

For comparative purposes, the GMP groups elevators into four classes. These classes are based on the loading capability of each facility, which is in turn defined by the number of car spots each possesses. Those with less than 25 car spots are deemed to be Class A facilities; those with 25-49, Class B; those with 50-99, Class C; and those with 100 or more, Class

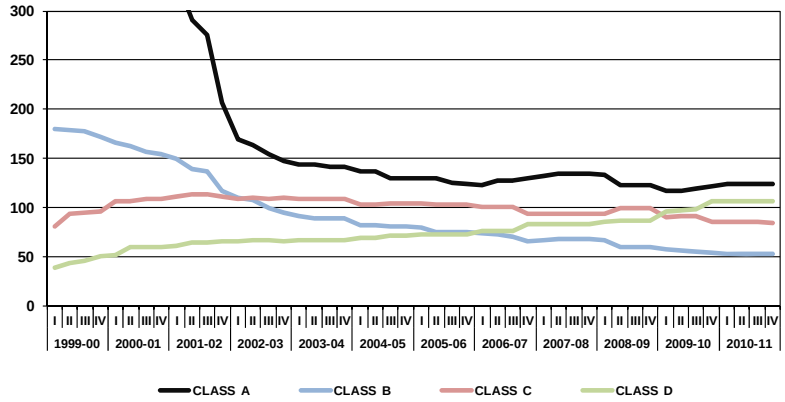
D.[6] In addition, the GMP deems Class C and D facilities to be high-throughput elevators given their ability to load railcars in larger numbers.

Within this framework, the composition of the elevator network can be seen to have changed significantly over the course of the GMP. The most striking aspect has been the 82.4% decline in the number of Class A facilities, which dropped to 124 from the 705 in place at the beginning of the GMP. This was followed closely by a 71.1% reduction in Class B facilities, which fell to 52 from 180 over the same period. Juxtaposed against this was the trade's pronounced shift towards the use of high-throughput elevators. During this same period the number of Class C facilities grew by 3.7%, to 84 from 81, while the number of Class D facilities almost tripled, rising to 106 from 38.

These statistics clearly reflect the fact that the conventional wood-crib elevator was the focal point of the grain trade's rationalization efforts. Of the 911 elevator closures recorded since the beginning of the GMP, 695 related to the shutdown of Class A facilities.[7] To a large extent, this was because the economic efficiency of the high-throughput elevator had rendered these facilities obsolete. But they had also been undermined by the financial incentives that the railways used to encourage grain to move in blocks of 25 or more railcars at a time.

These same forces also disfavoured the Class B facilities, albeit not to the same degree. More particularly, even though grain movements from these facilities were eligible to receive discounted freight rates, they were not as generous as those accorded shipments from high-throughput elevators. These small-block discounts were later reduced and ultimately

**Figure 17: Licensed Elevators – Facility Class**




eliminated.[8] As a result, over the course of the GMP, a total of 147 Class B facilities also closed. Together, Class A and B facilities account for 92.4% of all recorded elevator closures. [Table 3A-7]

In contrast to their share of closures, only 157 of the 273 elevators opened during this period were Class A and B facilities. This differential calls attention to the fact that high-throughput facilities accounted for a much greater proportion of elevator openings than closures, 42.5% versus 7.6% respectively. Class C and D elevators were the only ones to have posted net increases since the 1999-2000 crop year. [Table 3A-8]

Since the close of the 2008-09 crop year high-throughput elevators have represented the majority of GHTS facilities. More importantly, these facilities have claimed the lion's share of the system's storage capacity

6 The facility classes employed here mirror the thresholds delineated by Canada's major railways at the beginning of the GMP for the receipt of discounts on grain shipped in multiple-car blocks. At that time, these thresholds involved shipments of 25, 50 or 100 railcars. First introduced in 1987, these incentives were aimed at drawing significantly greater grain volumes into facilities that could provide for movement in either partial, or full, trainload lots.

7 Statistics associated with elevator closures and openings are gross measures and do not distinguish between licensed facilities that may have been closed by one operator but, as a result of its subsequent sale, later reopened by another.

8 With the commencement of the 2003-04 crop year, CN eliminated the $1.00-per-tonne discount that had been given to movements from Class B facilities since the beginning of the GMP, while CP reduced it to $0.50 per tonne. By the close of the 2005-06 crop year, CP had also eliminated its discount on movements in blocks of 25-49 cars.

since the 2000-01 crop year. By the close of 2010-11 crop year, high-throughput facilities accounted for 51.9% of system elevators and 80.9% of its storage capacity. Both values differ considerably from the 11.9% and 39.4% shares they respectively held at the beginning of the GMP.

## Grain Companies

For a number of grain companies, the key to improving the economic efficiency of their grain-gathering networks has been to rationalize their elevator assets. With the cornerstone of this strategy being the replacement of smaller elevators by larger high-throughput facilities, it follows that this would better lend itself to those grain companies having the largest physical networks. In fact, the largest companies proved to be the primary practitioners of elevator rationalization.

Furthermore, the vast majority of the 638-elevator reduction posted through to the end of the 2010-11 crop year, encompassing some 595 facilities in total, were attributable to the predecessors of today's Viterra Inc.[9] This embodied a net reduction of 85.0% in the company's facilities. Richardson International and Cargill posted the next deepest cuts, with elevator reductions of 45.7% and 42.4% respectively. Complementing these were the lesser reductions made by Paterson Grain, 26.0%, as well as Parrish and Heimbecker, 19.2%. [Table 3A-3]

Elevator closures have abated significantly since the creation of Viterra in 2007. Moreover, the remaining network's constituent facilities actually began to increase in number after reaching a GMP low of 360 elevators in the first quarter of the 2009-10 crop year. However, much of this six-elevator increase is misleading, since it largely reflects changes in the licensing requirements of the Canadian Grain Commission rather than in

9 Viterra Inc. was formed in 2007 following Saskatchewan Wheat Pool's purchase of Agricore United, which was itself the product of a merger between Agricore Cooperative Ltd. and United Grain Growers Limited in 2001. Given this heritage, Viterra Inc. is the corporate successor to the three largest grain companies in existence at the beginning of the GMP. The 595 closures cited here represent the net reduction posted by Viterra's predecessor companies, which had a combined total of 700 elevators at the outset of the GMP.

**Figure 18: Change in Licensed Elevators – Grain Company**

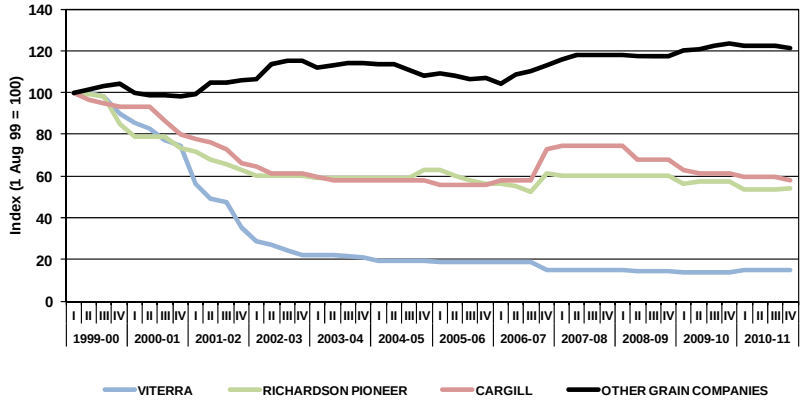
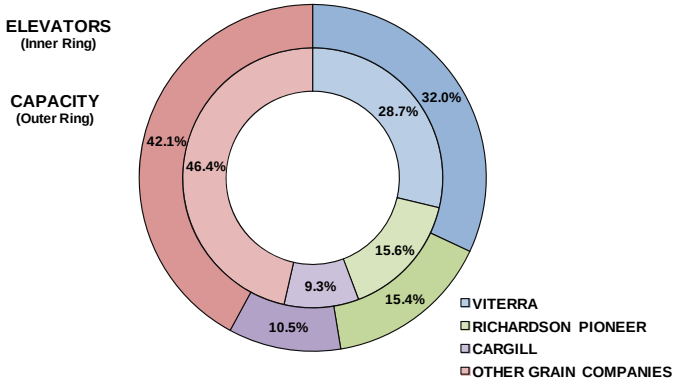



**Figure 19: Licensed Elevators and Capacity – 2010-11 Crop Year**



the physical addition of new facilities. Viterra figures prominently in this gain since a number of its previously unlicensed elevators have now been licensed. Still, not all elevators were closed permanently. In a number of instances, facilities rendered surplus were sold to smaller, independent grain companies. Many of these transfers figured into an 80.4% increase in the number of elevators operated by smaller grain companies, which climbed to 101 from 56.

In addition to controlling over half of the GHTS's elevators and storage capacity, Viterra, Richardson International and Cargill remain the dominant handlers of grain in western Canada. This is reflected in the fact that these three companies have consistently handled about 75% of the export grain moved by the GHTS since the beginning of the GMP.

This concentration is also reflected in the way grain is gathered into the system, with the vast majority of grain collected at fewer than half of the GHTS's delivery points. In the 2009-10 crop year – the last for which statistics are available – 90 of the GHTS's 222 active delivery points took in 80% of the grain delivered. Although this 40.5% share is greater than the 33.5% recorded in the GMP's base year, it still suggests that deliveries remain highly concentrated within the smaller grain-gathering network. [Table 3A-9]

## RAILWAY INFRASTRUCTURE

At the outset of the 1999-2000 crop year, the railway network in western Canada encompassed 19,468.2 route-miles of track. Of this, Class 1 carriers operated 76.2%, or 14,827.9 route-miles, while the smaller Class 2 and 3 carriers operated the remaining 23.8%, or 4,640.3 route-miles.[10] Although the railway network has contracted, the reduction has proven substantially less than that of the elevator system it serves. By the end of the 2009-10 crop year, the net reduction in western Canadian railway infrastructure amounted to just 8.0%, with the network's total mileage having been reduced to 17,904.7 route-miles overall. The largest share of this 1,563.5-route-mile reduction came from the abandonment of 1,363.1 route-miles of light-density, grain-dependent branch lines.[11] [Table 3B-1]

Notwithstanding its physical reduction, the railway network had changed in other ways as well. Much of this related to the transfer by CN and CP of various branch line operations to a host of new shortline railways. This practice, which began in the mid 1990s, was one of the cornerstones in a wider industry restructuring that resulted in slightly more than one-quarter of the railway network in western Canada being operated by smaller regional and shortline carriers.

The first important variation in this restructuring strategy came in 2004 when CN acquired the operations of what was then western Canada's only Class 2 carrier, BC Rail Ltd. In addition, the waning financial health of most shortline carriers led many to either rationalize or sell their own operations. Ultimately, this resulted in a number of shortlines being reabsorbed into the operations of the Class 1 carrier that had originally spun them off.[12] By the close of the 2009-10 crop year, the network operated by the Class 1 carriers had actually increased 3.9%, to 15,403.7 route-miles, whereas that of the Class 2 and 3 carriers had declined by 46.1%, to 2,501.0 route miles.

10 The classes used here to group railways are based on industry convention: Class 1 denotes major carriers such as the Canadian National Railway or the Canadian Pacific Railway; Class 2, regional railways such as the former BC Rail; and Class 3, shortline entities such as the Great Western Railway.

11 The term "grain-dependent branch line", while largely self-explanatory, denotes a legal designation under the Canada Transportation Act. Since the Act has application to federally regulated railways only, grain-dependent branch lines transferred to provincially regulated carriers lose their federal designation. This can lead to substantive differences between what might be considered the physical, and the legally-designated, grain-dependent branch line networks. For comparison purposes only, the term has been affixed to those railway lines so designated under Schedule I of the Canada Transportation Act (1996) regardless of any subsequent change in ownership or legal designation.

12 The most significant of these reacquisitions came in January 2006 when RailAmerica Inc. sold the majority of its western Canadian holdings to CN. Over the course of the next two years, CN also reacquired the operations of what had devolved into the Savage Alberta Railway as well as the Athabasca Northern Railway.

Still, many of these shortlines had been established with an eye towards preserving railway service on what the Class 1 carriers had come to regard as uneconomic branch lines. While many of these branch lines were grain dependent, most of these shortlines proved incapable of reshaping the economics that had given rise to the grain industry's broader elevator-rationalization programs. Although these carriers could point to some success in attracting new business – much of which has been tied to increased producer-car loading – they ultimately could not prevent the grain companies from closing the smaller elevators that underpinned their commercial activity. In the face of several resultant business failures, the physical span of the prairie shortline network had contracted to less than half of the 2,225.8 route-miles that it had been at the outset of the GMP, ultimately falling to a low of 1,002.5 route-miles midway through the 2007-08 crop year.[13]

Notwithstanding this decline, the shortline industry was beginning to show signs of resurgence. Much of this could be traced back to the successful takeover of the Great Western Railway by a consortium of local municipal and business interests in 2004. Their model, which essentially integrated the railway's operations with local producer-car loading activity, fostered imitation. By the close of the 2009-10 crop year, another five shortline railways had been established across the prairies.[14] Three of these were based in Saskatchewan, where the provincial government proved more receptive to providing financial assistance.[15]

13 Prairie shortlines represent a geographic subset of the broader Class 2 and 3 railway classification cited previously. As at 31 January 2008 there were just eight shortline railways originating traffic on the prairies: Thunder Rail Ltd.; Carlton Trail Railway; Central Manitoba Railway; Fife Lake Railway; Great Western Railway Ltd.; Red Coat Road and Rail Ltd.; Southern Rails Cooperative Ltd.; and Wheatland Railway Inc.

14 The five shortline railways created during this period were: Torch River Rail Inc.; Boundary Trail Railway Co.; Great Sandhills Railway; Last Mountain Railway; and Battle River Railway.

15 The Government of Saskatchewan lent financial support to several shortline initiatives, most often through the extension of interest-free loans. Additional financial support has also come through the province's Shortline Railway Sustainability Program.

**Figure 20: Change in Route-Miles – Railway Class**

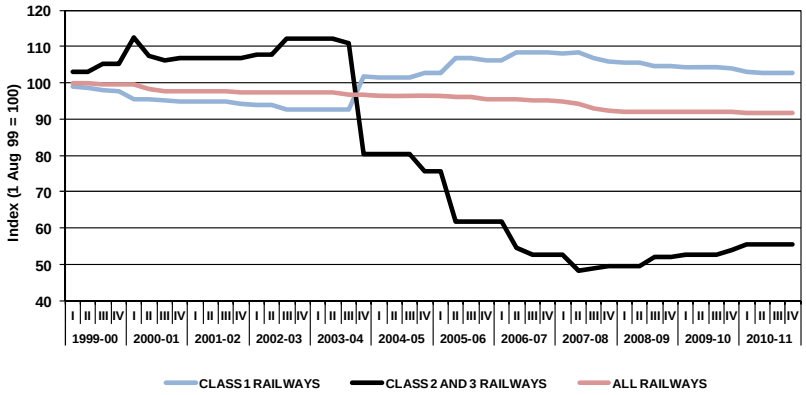
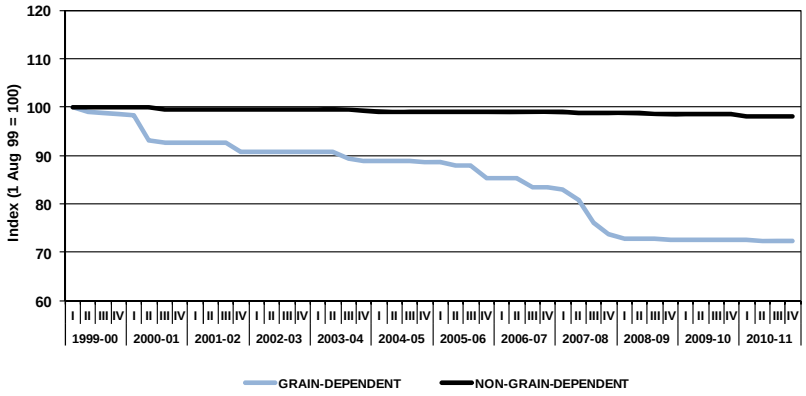



**Figure 21: Change in Route-Miles – Railway Network**



Although the creation of these new entities had a comparatively modest impact on the division of infrastructure between Class 1 and non-Class-1 carriers, the prairie shortline system was again expanding. At the close of the 2009-10 crop year, the shortline network had increased by almost a third, encompassing 1,305.8 route-miles of track under the management of 13 separate carriers.

The 2010-11 crop year brought still another example of this expansion, with the formation of the Stewart Southern Railway in August 2010. Like many of the shortlines that had preceded it, the SSR arose out of a community effort aimed at preserving local railway service along a 79.8-mile section of CP's Tyvan subdivision, located southeast of Regina, Saskatchewan. With little more than one hundred carloads of traffic being generated annually, CP had earmarked the subdivision for discontinuance. Still, the line was considered particularly vital to the needs of Fill-More Seeds, which chose to spearhead the successful takeover effort.

In conjunction with this, another 74.4 route-miles of the western Canadian railway network was abandoned in the 2010-11 crop year. The majority of this reduction came in October 2010, when CN retired 68.0 route-miles of its Oyen subdivision, which straddled the railway's secondary route between Saskatoon and Calgary.[16] The discontinuance came as a result of the carrier's decision to begin redirecting traffic via Edmonton some two years earlier. Although local interests envisioned establishing a shortline operation westward from Oyen, Alberta, to Lyalta, Alberta, the effort ultimately collapsed when the two parties failed to come to terms.

In December 2010 CN formally abandoned another 6.4-route-mile section of track that extended westward from Falher to Girouxville, in the Peace River district of Alberta.[17] Service had actually been suspended shortly after the carrier announced the line's planned discontinuance in 2009. Customers located at Girouxville, which operated two producer-car loading sites generating about 1,200 carloads of traffic annually, were relocated to sites in nearby Falher later that fall.

All of this resulted in a comparatively modest change to the face of the railway infrastructure in western Canada during the 2010-11 crop year, with the span of that network falling by 0.4%, to 17,830.3 route-miles. Within this, the infrastructure accorded to the Class 1 railways had been reduced by another 1.0%, to 15,249.5 route-miles, while that associated with the non-Class-1 carriers had increased 3.2%, to 2,580.8 route-miles.

## Local Elevators

As previously outlined, the GHTS's elevator infrastructure has been transformed more substantively over the course of the last twelve years than has the railway network that services it. In broad terms, these facilities have decreased by 64.4% in number, to 349 from 979, and by 9.3% in terms of associated storage capacity, to 6.3 million tonnes from 6.9 million tonnes.[18]

But these reductions have manifested themselves in noticeably different ways for the Class 1 and non-Class 1 railways. By the close of the 2010-11 crop year, the elevator networks served by both carrier groups had fallen by comparable amounts: 64.3% in the case of those served by the major carriers; and 64.6% in the case of those served by the shortline carriers. [Table 3B-3]

16 The abandoned portion of CN's Oyen subdivision was situated near the centre of its Saskatoon-Calgary route, between mileage points 68.4 and 136.4, which extended from Oyen, Alberta, to Hanna, Alberta. The abandonment effectively severed the route, leaving two grain-gathering branchlines: one extending westward from Saskatoon; and the other eastward from Calgary.

17 The section abandoned extended from mileage points 274.3 to 280.7 of the CN's Smoky subdivision. The Smoky subdivision, which originally extended over a distance of 95 miles, from McLennan, Alberta, to Spirit River, Alberta, was effectively severed into two sections following CN's abandonment of the Watino Bridge, which was used to traverse the Smoky River, some 20 years earlier. The line to Girouxville marked the westernmost end of the eastern section.

18 The reductions cited here relate only to the facilities directly served by rail.

But there was a far more pronounced change in storage capacity, with only a 5.2% decline in the case of elevators local to Class 1 carriers versus a 64.0% reduction for those tied to non-Class 1 carriers. These latter changes underscore the fact that the grain companies have been investing in facilities served by the major railways rather than the shortlines, situating virtually all of their high-throughput elevators on the networks belonging to CN and CP.[19]

A more telling portrayal comes from examining the change in facilities local to both the grain-dependent, and non-grain-dependent, railway networks. Elevators situated along the grain-dependent network have fallen by 72.1% since the beginning of the GMP, to 117 from 420. For those situated along the non-grain-dependent network, the decline was 58.5%, with the number of elevators having fallen to 232 from 559. On the whole, these patterns clearly indicate that the elevators tied to the grain-dependent railway network have diminished at a noticeably faster pace.

More telling, however, has been the change in associated storage capacity between these two networks. In the case of the grain-dependent network, total storage capacity has fallen by 29.4%. But the non-grain-dependent network has actually witnessed a modest increase in storage capacity, gaining 2.0% by the close of the 2010-11 crop year. Once again, these differentials reflect the strategic considerations that have been given to the grain companies' investments decisions.

## TERMINAL ELEVATOR INFRASTRUCTURE

There were no changes to the licensed terminal elevator network in the 2010-11 crop year. As a result, the network was still comprised of 15 facilities with an associated storage capacity of 2.5 million tonnes. These values are only marginally greater than those of the GMP's base year,

19 As at 31 July 2011 there were 190 high-throughput elevators served by rail. Of these, 182 were served by CN and CP.

**Figure 22: Change in Local Elevators – Railway Class**

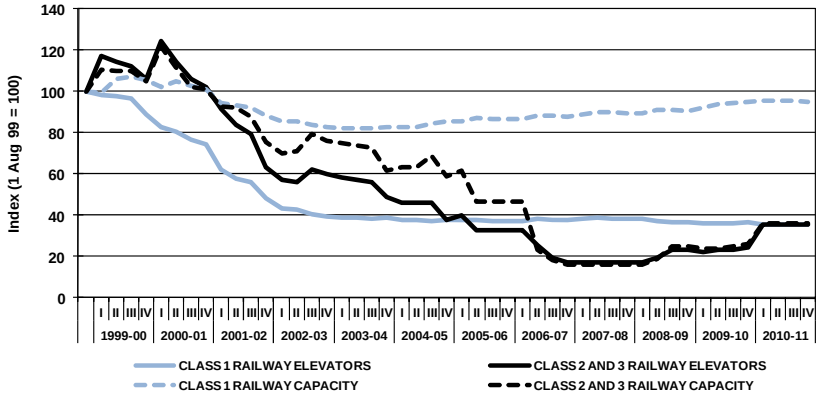
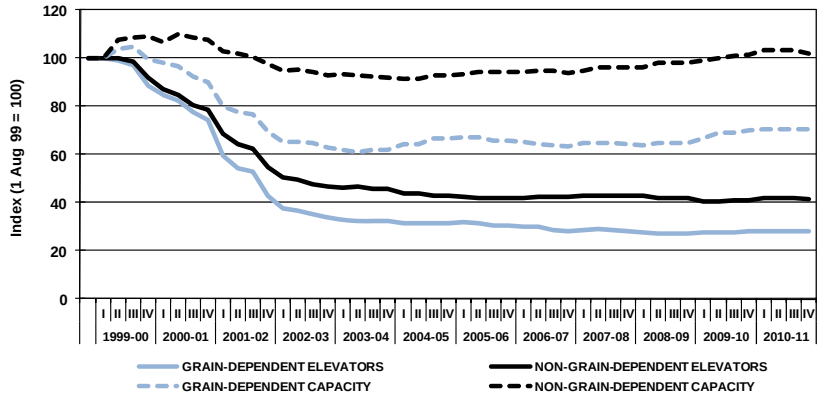



**Figure 23: Change in Local Elevators – Branch Line Class**

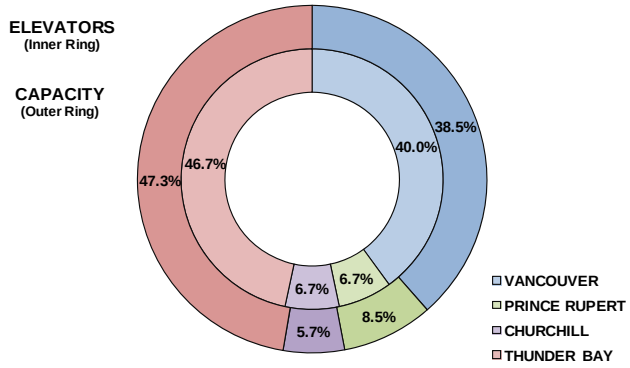


which sat at 14 elevators with 2.6 million tonnes of storage capacity. [Table 3C-1]

With seven of the elevators and 47.3% of the storage capacity, Thunder Bay held the largest share of these assets. Vancouver took second place with six facilities and 38.5% of the system's storage capacity. Prince Rupert and Churchill both followed with one terminal elevator apiece, and storage capacity shares of 8.5% and 5.7% respectively.

And while the physical scope of the changes in this network has been minimal, there have been a number of significant changes in terminal ownership. Each of these was rooted in the various corporate mergers and acquisitions that have taken place since the GMP began.[20] No changes in this regard have been recorded since 2007.

**Figure 24: Terminal Elevators – 2010-11 Crop Year**




20 The merger of Agricore Cooperative Ltd. and United Grain Growers Limited, which combined to form Agricore United in 2001, had the most significant bearing on terminal ownership. This was followed in 2007 with the purchase of Agricore United by Saskatchewan Wheat Pool and the formation of Viterra Inc.

# Section 4: Commercial Relations

| Indicator Description | Table | 1999-00 | 2008-09 | 2009-10 | 2010-11 Q1 | Q2 | Q3 | Q4 | YTD | % VAR |
|---|---|---|---|---|---|---|---|---|---|---|
| **Trucking Rates** | | | | | | | | | | |
| Composite Freight Rate Index – Short-haul Trucking | 4A-1 | 100.0 | 132.2 | 132.2 | 157.0 | 157.0 | 162.0 | 162.2 | 162.2 | 22.7% |
| **Country Elevators Handling Charges** | | | | | | | | | | |
| Average Handling Charges – Country Delivery Points | 4B-1 | | | | | | | | | |
| **Railway Freight Rates** | | | | | | | | | | |
| Composite Freight Rates ($ per tonne) – Rail | 4C-1 | | | | | | | | | |
| Multiple-Car Shipment Incentives ($ per tonne) – Rail | 4C-2 | | | | | | | | | |
| Effective Freight Rates ($ per tonne) – CTA Revenue Cap | 4C-3 | n/a | $30.92 | $28.76 | n/a | n/a | n/a | n/a | $30.59 | 6.4% |
| **Terminal Elevator Handling Charges** | | | | | | | | | | |
| Average Handling Charges – Terminal Elevators | 4D-1 | | | | | | | | | |
| **Tendering Program** | | | | | | | | | | |
| Tenders Called (000 tonnes) | 4E-1 | n/a | 3,416.2 | 2,431.4 | 1,438.5 | 571.4 | 924.6 | 377.7 | 3,312.2 | 36.2% |
| Tender Bids (000 tonnes) | 4E-3 | n/a | 5,622.1 | 4,969.6 | 1,499.8 | 3,116.3 | 3,500.1 | 613.5 | 8,729.8 | 75.7% |
| Total CWB Movements (000 tonnes) | 4E-5 | n/a | 15,612.8 | 15,175.0 | 3,563.2 | 2,919.9 | 3,015.7 | 3,954.0 | 13,452.8 | -11.3% |
| Tendered Movements (%) – Proportion of Total CWB Movements | 4E-5 | n/a | 14.4% | 16.4% | 18.9% | 11.7% | 15.2% | 4.6% | 12.3% | -25.0% |
| Tendered Movements (000 tonnes) – Grain | 4E-5 | n/a | 2,246.6 | 2,495.2 | 673.2 | 342.2 | 457.6 | 180.3 | 1,653.2 | -33.7% |
| Average Tendered Multiple-Car Block Size (railcars) – Port | 4E-17 | n/a | 59.7 | 64.8 | 53.2 | 60.9 | 71.4 | 55.0 | 59.8 | -7.7% |
| Railway Car Cycle (days) – Tendered Grain | 4E-18 | n/a | 11.8 | 11.1 | 14.3 | 12.3 | 11.8 | 12.2 | 12.5 | 12.6% |
| Railway Car Cycle (days) – Non-Tendered Grain | 4E-18 | n/a | 13.0 | 13.1 | 13.4 | 14.7 | 13.9 | 14.4 | 14.1 | 7.6% |
| Maximum Accepted Tender Bid ($ per tonne) – Wheat | 4E-19 | n/a | -$23.01 | -$21.28 | -$21.87 | -$25.02 | -$23.00 | -$5.60 | -$25.02 | 17.6% |
| Maximum Accepted Tender Bid ($ per tonne) – Durum | 4E-19 | n/a | -$14.95 | -$23.56 | -$11.07 | -$5.08 | -$7.98 | -$8.29 | -$11.07 | -53.0% |
| Market Share (%) – CWB Grains – Major Grain Companies | 4E-20 | n/a | 72.9% | 74.3% | 76.6% | 71.0% | 75.7% | 75.4% | 74.8% | 0.7% |
| Market Share (%) – CWB Grains – Non-Major Grain Companies | 4E-20 | n/a | 27.1% | 25.7% | 23.4% | 29.0% | 24.3% | 24.6% | 25.2% | -1.9% |
| **Advance Car Awards Program** | | | | | | | | | | |
| Advance Award Movements (%) – Proportion of Total CWB Movements | 4F-1 | n/a | 12.1% | 10.8% | 6.4% | 11.7% | 6.2% | 9.0% | 8.3% | -23.1% |
| Advance Award Movements (000 tonnes) – Grain | 4F-1 | n/a | 1,896.5 | 1,633.3 | 228.7 | 340.4 | 187.5 | 355.5 | 1,112.1 | -31.9% |
| Railway Car Cycle (days) – Advance Award Grain | 4F-6 | n/a | 12.2 | 12.3 | 12.3 | 14.4 | 12.9 | 12.8 | 13.2 | 7.3% |

## TRUCKING RATES

Short-haul trucking rates rose substantially between the 2004-05 and 2008-09 crop years, increasing by a factor of one-third from what they had been at the beginning of the GMP. Although this escalation was largely derived from rising fuel and labour costs, it was also supported by a heightened demand for carrying capacity, which allowed service providers a greater degree of latitude in passing these costs onto grain producers. Even with the collapse in crude oil prices that came in the latter half of 2008, these rates remained effectively unchanged through to the close of the 2009-10 crop year.

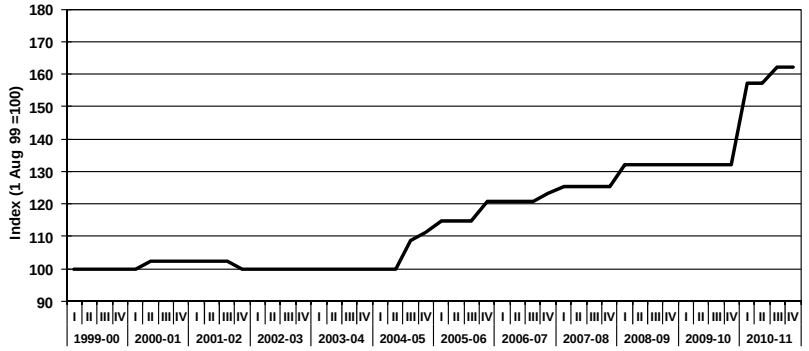
Although prices remained highly volatile, by the close of April 2011 the price of oil had regained a lot of lost ground, reaching $110 US per barrel for the first time in almost two-and-a-half years. This upward momentum brought greater pressure to bear on fuel prices and, in turn, the cost of moving grain by truck. The first quarter of the 2010-11 crop year saw these costs increase by 18.8%, with the composite price index for short-haul trucking rising to 157.0 from 132.2. Rate increases in the third quarter added another 3.2% to this value, with a further 0.1% being added in the fourth. By the close of the crop year, the index's overall value had risen 22.7%, to reach a GMP record of 162.2. [Table 4A-1]

## COUNTRY ELEVATOR HANDLING CHARGES

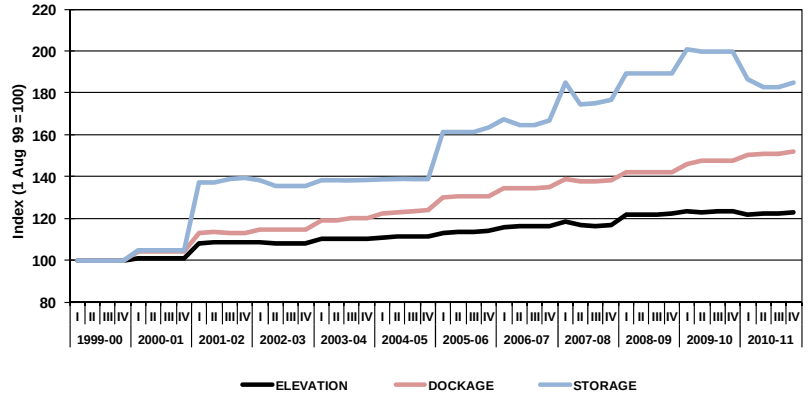
The per-tonne rates assessed by grain companies for a variety of primary elevator handling activities are the primary drivers of corporate revenues. Comparatively, those assessed for the receiving, elevating and loading out of grain are the most costly for producers. These are in turn followed by the charges levied for the removal of dockage (cleaning) and storage. These rates vary widely according to the activity, grain and province involved.

Given the wide variety of tariff rates, the GMP necessarily uses a composite price index to track changes in them. Since the beginning of the GMP, the rates for all of these services have risen considerably. The

### Figure 25: Change in Composite Freight Rates – Short-Haul Trucking




### Figure 26: Change in Primary Elevator Handling Charges



smallest increases have been in those tied to the receiving, elevating and loading out of grain. Through to the end of the 2009-10 crop year, these costs had risen by 23.3%. Modest changes during the 2010-11 crop year saw these rates fall by 0.4%, reducing the cumulative increase over the last twelve years to 22.8%.

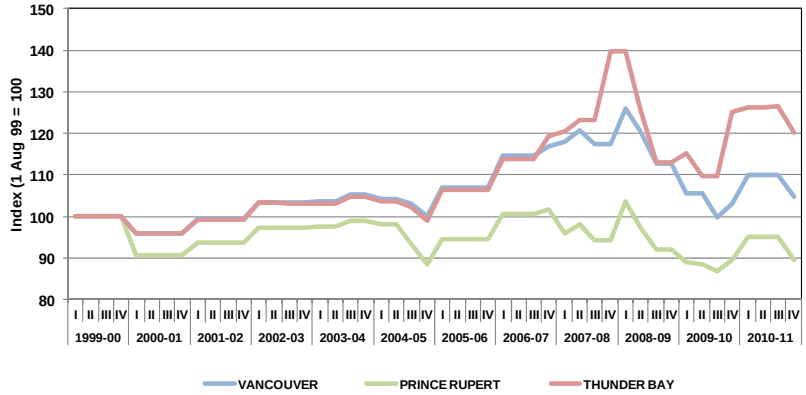
The rates associated with the removal of dockage have increased at a somewhat faster pace. Through to the end of the 2009-10 crop year, these rates had already risen by 47.3%. With the close of the 2010-11 crop year, the composite price index had gained another 2.9%, bringing the cumulative increase to 51.7%.

The most substantive rate escalations observed thus far have related to elevator storage. Much of the initial price shock came towards the end of the 2000-01 crop year, when these rates were raised by a factor of almost one-third. Since then they have continued to climb, virtually doubling by the close of the 2009-10 crop year.[21] However, the 2010-11 crop year saw a rollback in many of the rates applicable on the storage of non-CWB commodities, which produced a 7.4% reduction in the composite price index, and lowered the cumulative increase since the beginning of the GMP to 84.8%. [Table 4B-1]

## RAILWAY FREIGHT RATES

The single-car freight rates assessed by CN and CP for the movement of regulated grain have changed substantially since the beginning of the GMP, evolving from what were largely mileage-based tariffs into a less rigidly structured set of more market-responsive rates. This became evident in the rate differentials that arose between specific grains and the ports to which they were destined. Much of this began to take shape at the beginning of the 2006-07 crop year when CN initiated a partial changeover to commodity-specific, per-car charges. With CP following suit, a wholesale conversion in the rate structures of both carriers was completed by the close of the 2007-08 crop year. [Table 4C-1]

**Figure 27: CN Single-Car Freight Rates – Primary Corridors**




This restructuring also resulted in more substantive rate increases being applied against shipments to Thunder Bay and Churchill rather than those to the west coast. Even within this broader initiative, CN widened the financial advantage that it had begun giving single-car shipments to Prince Rupert. Not to be overlooked was an initial move towards seasonal pricing, which attempted to link freight rates to the rhythmic demand change for railway carrying capacity. This structure was complicated even further as both carriers began to adjust rates with greater geographic selectivity in response to evolving competitive pressures.

The first quarter of the 2010-11 crop year brought more of the same, with rates rising by differing amounts in the various corridors. Much of CN's pricing actions focused on westbound grain shipments, with its rates in the Vancouver corridor rising at the outset of the period by a

21 It should be noted that all tariff rates constitute a legal maximum, and that the rates actually paid by any customer for storage may well fall below these limits.

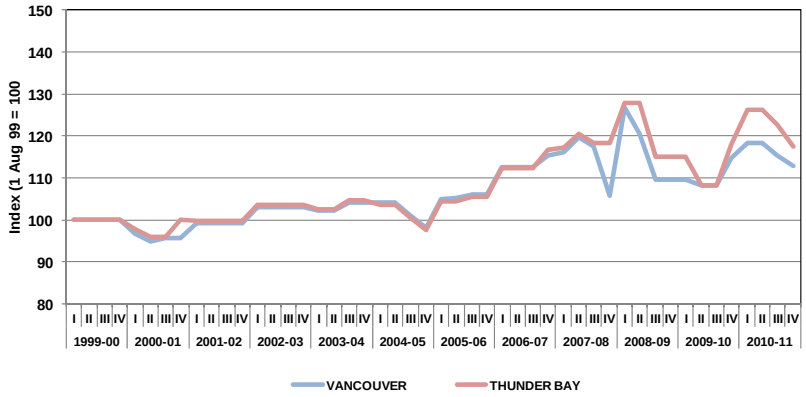
factor of 7.0% while those in the Prince Rupert corridor were held to a slightly lesser 6.0%. The carrier restricted the escalation of its rates to Thunder Bay to about 0.8% by selectively applying a 10.0% increase to traffic originating only in southern Saskatchewan and Manitoba. This approach was also paralleled in adjustments to the rates on grain moving to Churchill. These rates effectively remained in place through the third quarter.

For its part, CP initiated an across-the-board rate increase of about 5.0% at the beginning of the 2010-11 crop year. This, however, was followed by a secondary round of pricing adjustments in mid October 2010, which incorporated a mix of increases as well as decreases. At the close of the first quarter, the carrier's rates in the Vancouver corridor had risen by approximately 3.1%, while those in its Thunder Bay corridor rose by a more substantive 7.0%.

As was the case with CN, CP initiated no change to these rates in the second quarter. However, the carrier did bring forward a series of rate reductions towards the close of the third quarter. On movements to Vancouver these reductions averaged about 2.5%, and ranged from a low of 2.1% on shipments from Manitoba to a high of 3.3% on those from Alberta. Much the same was true of movements to Thunder Bay, with the average rate reduction amounting to 2.9%, and which ranged from a low of 2.2% on shipments from Alberta to a high of 4.1% on those from Manitoba.

The single-car rates brought forward by both carriers in the fourth quarter saw further reductions, although these again differed between corridors. For its part, CN reduced its rates in the Vancouver and Thunder Bay corridors by approximately 4.8%, while cutting the rates in the Prince Rupert corridor by a somewhat steeper 5.9%. CN also cut its single-car rates into Churchill by 2.8%.[22] These contrasted against CP

**Figure 28: CP Single-Car Freight Rates – Primary Corridors**




reductions of 2.5% in its Vancouver corridor, and a more substantive 5.0% in its Thunder Bay corridor.

The compound effect of these pricing actions, as well as those registered earlier in the GMP, provides some insight into the orientation of today's single-car freight rates. By the close of the 2010-11 crop year, the single-car rates applicable on the movement of grain to the jointly served ports of Vancouver and Thunder Bay had both increased, albeit by substantially different margins: 8.8% and 18.8% respectively. The difference was even more significant for the ports of Prince Rupert and Churchill, which actually declined by 10.5% in the case of the former, and increased by 20.2% in the case of the latter. Taken altogether, these patterns continue to suggest that the railways are more favourably disposed towards the handling of westbound grain, and that they have become more willing to use price in an effort to influence that movement.

22 CN's single-car rates to Churchill are published in accordance with the port's shipping season. The 2.8% reduction cited here relates to the rates that were in place at the close of the 2010 shipping season, or the first quarter of the 2010-11 crop year.

## Multiple-Car-Block Discounts

There have been equally significant changes to the structure of the freight discounts both carriers use to promote the movement of grain in multiple car blocks. The most noteworthy aspect of this evolution was the gradual elimination of the discounts applicable on movements in blocks of less than 50 cars, along with a progressive escalation in the discounts tied to blocks of 50 or more cars. Over the course of the GMP, the discount applicable on the largest of these has risen by a factor of 60%, to $8.00 per tonne from $5.00 per tonne. More importantly, there can be little doubt that this has been a central force in the rationalization of the western Canadian elevator system and in the expansion of high-throughput facilities.

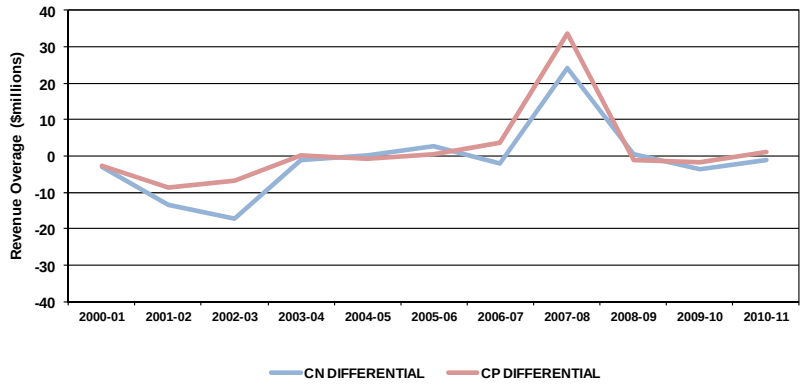
These discounts remained unchanged in the 2010-11 crop year. CN continued to offer discounts on movements in blocks of 50-99 cars that equated to $4.00 per tonne, and to $8.00 per tonne on movements of 100 or more cars. The corresponding discounts for CP remained at $4.00 per tonne for shipments in blocks of 56-111 cars, and at $8.00 per tonne for shipments in blocks of 112 cars. [Table 4C-2]

## The Revenue Cap

Under the federal government's revenue cap, the revenues that CN and CP are allowed to earn in any given crop year from the movement of regulated grain cannot exceed a legislated maximum of $348.0 million and $362.9 million respectively.[23] But these limits are not static. Rather, they are adjusted annually to reflect changes in volume, average length of haul, and inflation. With the exception of the inflationary component, these adjustments are determined by the Canadian Transportation Agency following a detailed analysis of the traffic data submitted to it by

23 The maximums cited here are expressed in constant 2000 dollars, and were developed using an estimated annual movement of 12.4 million tonnes for CN and 13.9 million tonnes for CP, with average haulage distances of 1,045 miles and 897 miles respectively.

### Figure 29: Revenue Cap Compliance




CN and CP at the end of any given crop.[24] For the 2010-11 crop year, the revenue caps for CN and CP were set at $509.3 million and $442.6 million respectively, or $951.9 million on a combined basis.[25] [Table 4C-3]

At the same time, the Agency determined that the statutory revenues derived from the movement of regulated grain by CN and CP amounted to $508.4 million and $443.8 million respectively, or $952.2 million on a combined basis. As a result, CN's revenues actually fell $0.9 million, or 0.2%, below its limit, while CP's came in $1.3 million, or 0.3%, above its revenue cap. This meant that combined carrier revenues stood just $0.3

24 The Volume-Related Composite Price Index (VRCPI), which provides for an inflationary adjustment to carrier revenues, is determined by the Canadian Transportation Agency in advance of each crop year. For the 2010-11 crop year, the Agency determined the value of the VRCPI to be 1.1384, which represented a year-over-year increase of 7.0%. See Canadian Transportation Agency Decision Number 159-R-2010 dated 30 April 2010.

25 See Canadian Transportation Agency Decision Number 443-R-2011 dated 22 December 2011.

million above the legally prescribed limit. Once again, these differentials demonstrate the railways' skill in maximizing their revenues under this regulatory framework.

## TERMINAL ELEVATOR HANDLING CHARGES

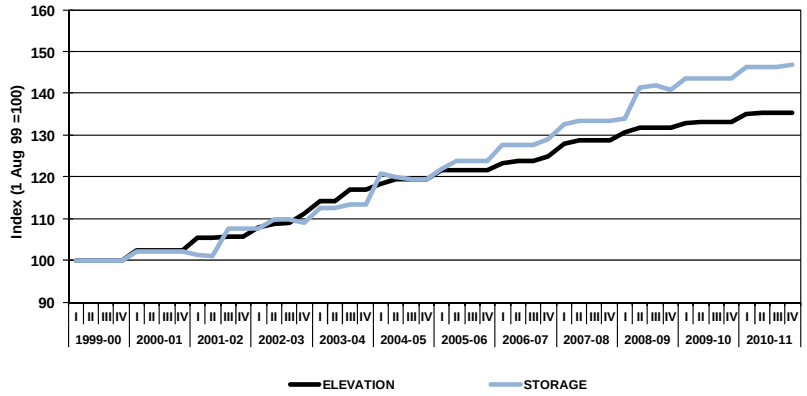
The rates posted for the receiving, elevating and loading out of grain nominally represent the most substantive assessed by the terminal elevator operators. As with other measures, an examination of price movement is best performed using a composite index, given the myriad of different tariff rates. At the end of the 2009-10 crop year these ranged from a low of about $8.08 per tonne for wheat delivered at Churchill, to a high of $14.62 per tonne for canola and flaxseed handled at Vancouver.

Increases were noted for virtually all ports in the 2010-11 crop year. At Vancouver, these ranged from a low of 0.8% on canola to a high of 2.6% on peas. Prince Rupert also posted increases that topped out at 2.2%. The story was much the same at Thunder Bay, where rate hikes ranged from 0.9% to 4.4%. The only exception was found in the rates posted by Churchill, which remained unchanged for yet a seventh consecutive shipping season. On the whole, these pricing actions served to raise the composite price index by a further 1.5%, bringing the combined value of all increases made since the beginning of the GMP to 35.2%. [Table 4D-1]

As with the cost of elevation, the daily charge for storage also varied widely, ranging from a low of about $0.07 per tonne on the majority of commodities held at Churchill to a high of $0.15 per tonne on oats maintained in inventory at Vancouver. These costs also moved generally higher in the 2010-11 crop year, with one of the most notable being a 10.8% increase in the storage cost of wheat at Churchill, its first price hike in six years.

Thunder Bay reported the largest escalation in the cost of storage, with an overall increase of about 3.1%. This was followed by Prince Rupert with an average increase of 2.5%; Vancouver, with a 2.4% rise; and

**Figure 30: Change in Terminal Elevator Handling Charges**




Churchill, with a 1.3% gain.[26] These actions effectively raised the year-end value of the composite price index for storage by another 2.4%, bringing the cumulative rise since the beginning of the GMP to 46.9%.

## TENDERING PROGRAM

The 2010-11 crop year denoted the eleventh for the Canadian Wheat Board's tendering program. Initially established with a three-year life under a Memorandum of Understanding between the Minister Responsible for the Canadian Wheat Board and the CWB, the program has evolved significantly since the MOU expired at the end of the 2002-03 crop year. The most notable change involved the development of a tacit agreement between the CWB and its agents to combine tendering with advance car awards to move about 40% of the grain shipped by the CWB

26 Wheat and durum represent over 90% of the grain moving through Churchill. Although the cost of storage for wheat rose by 10.8%, the rates applicable on the storage of other commodities remained unchanged for a seventh consecutive year. This contained the overall increase in the Churchill price index to 1.3%.

to the four ports in western Canada.

While the amount of grain shipped under these two programs never reached much beyond a third of the overall movement, this proportion has been drifting steadily lower in recent years. Much of this is due to the CWB's adoption of a less rigid target, and one that gives it a greater degree of flexibility in moving grain.

## Tender Calls

The CWB issued a total of 204 tenders calling for the shipment of approximately 3.3 million tonnes of grain in the 2010-11 crop year. This represented a 36.2% increase over the 2.4 million tonnes put out to tender a year earlier. Unlike previous years, the majority of this tonnage, 48.9%, related to the movement of barley. This entailed a potential movement of 1.6 million tonnes, eight times the 202,400 tonnes called a year earlier. Wheat ranked second in terms of overall size, with calls for 1.5 million tonnes having been issued. This denoted 44.9% of the overall total compared to 74.8% the year previous. Owing to a sharp decline in production, durum calls encompassed a mere 207,000 tonnes, garnering only a 6.2% share against 16.9% a year earlier.

The CWB sought to move the vast majority of the grain, representing 88.6% of the tonnage called, through the west coast ports of Vancouver and Prince Rupert. This was well ahead of the 77.0% share given over to these ports a year earlier, with both posting individual gains. Prince Rupert reported the largest relative increase, with its share rising to 51.2% from the previous crop year's 40.0%, while Vancouver's share inched up to 37.4% from 37.0%. As a result of the larger allocation to the west coast, Thunder Bay saw a significant reduction, garnering an 11.2% share against a 23.0% share the year before. This was complemented by Churchill, which owing to the first tenders issued in its favour in six years, secured a 0.3% share. [Tables 4E-1 and 4E-2]

**Figure 31: Tendered Grain – Tonnage Called and Tonnage Bid**

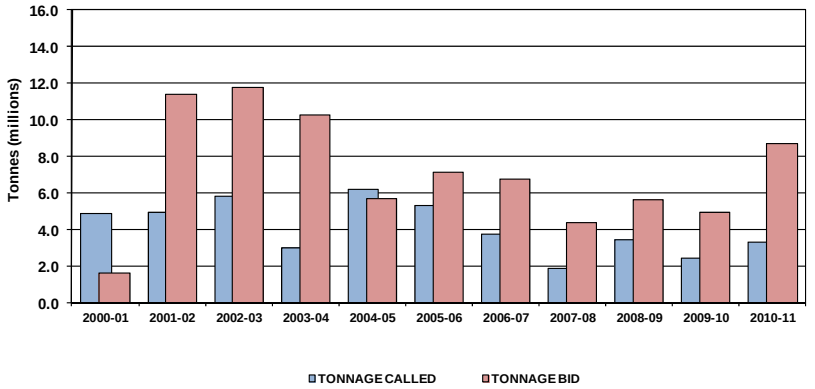
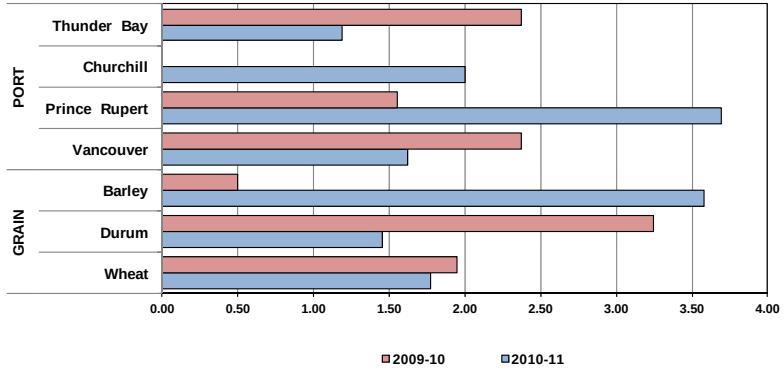



**Figure 32: Ratio of Tonnage Bid to Tonnage Called**



## Tender Bids

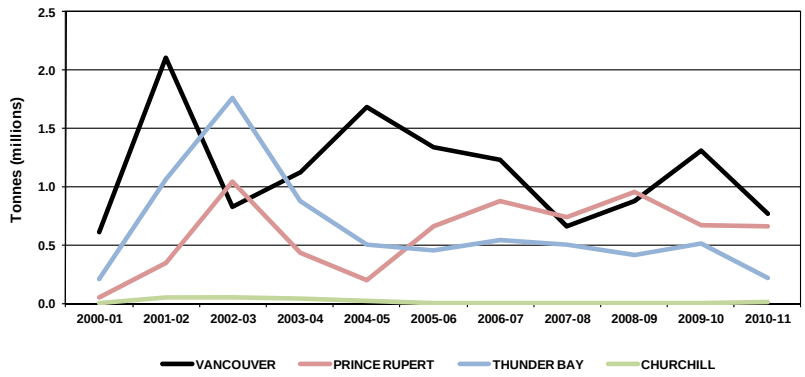
The CWB's tender calls were met by 538 bids offering to move 8.7 million tonnes of grain, more than two-and-a-half times the amount sought. The majority of these bids, 66.4%, responded to calls for the movement of barley. Another 30.2% responded to those issued for wheat, while the remaining 3.4% answered those for durum. When examined with respect to the port specified in the tender calls, 71.8% of the bids were directed to Prince Rupert, 23.0% to Vancouver, 5.0% to Thunder Bay, and 0.2% to Churchill. [Tables 4E-3 and 4E-4]

The relative strength of the grain companies' response to this segment of the CWB's business can be gauged through the ratio derived from comparing the number of tonnes bid against the number of tonnes called. With the exception of barley, overall bidding in the 2010-11 crop year proved generally weaker than in the previous crop year. Moreover, the response rate given over to barley, which posted a ratio of 3.6 against just 0.5 twelve months before, proved substantially stronger than that of either wheat or durum. Wheat elicited the next strongest response, although its ratio fell by 8.9%, to 1.8 from 2.0 a year earlier. The decline in the response rate on durum tenders was even more sizeable, with a reduction of 55.2% lowering the associated ratio to 1.5 from 3.2.

The response rates given over to the port specified in the tender calls were also mixed. Prince Rupert registered the most significant gain in intensity, with its ratio more than doubling, to 3.7 from 1.6. Just as noteworthy was the trade's reaction to the first calls issued in favour of Churchill in several years, and which garnered the second highest response rate among the four ports, 2.0. The ratio associated with delivery at Vancouver proved the next strongest, although it was cut by 31.7%, falling to 1.6 from 2.4 a year earlier. The response rate for Thunder Bay fell by 49.8%, to 1.2 from 2.4.

For the most part, these response rates reflected changes in the mix of grain that had been put out for tender. This was particularly true of barley and durum, where dramatic shifts in the called tonnages

### Figure 33: Tendered Grain – Destination Port




precipitated corresponding changes in the maximum discounts put forward by the grain companies in their bids. By way of example, the maximum bid put forward on barley in the 2010-11 crop year reached $20.00 per tonne against just $4.00 per tonne in the 2009-10 crop year. In equal measure, the highest accepted bid on durum was cut virtually in half, falling to $11.07 per tonne from $23.56 per tonne.

## Contracts Awarded

A total of 216 contracts were subsequently signed for the movement of almost 1.7 million tonnes of grain. This marked a reduction of 842,000 tonnes from the 2.5 million tonnes awarded a year earlier. In its broader context, this denoted just 12.3% of the tonnage shipped by the CWB to western Canadian ports in the 2010-11 crop year, falling well short of its 20% target. [Tables 4E-5 and 4E-6]

In contrast to the tonnage specified in the tender calls, 46.4% of the grain contracted for movement under the tendering program was directed to

the port of Vancouver. This somewhat larger share was complemented by a correspondingly lower one for Prince Rupert, which garnered 40.0% of the contracted tonnage. The proportion given over to Thunder Bay and Churchill also proved to be greater than was outlined in the CWB's tender calls, with earned shares of 13.0% and 0.5% respectively.

Although broader market forces had a significant role in shaping these results, the CWB has clearly been trying to direct a larger proportion of its tendered grain shipments through Prince Rupert for several years. To an extent, this can also be attributed to the advent of lower freight rates and a better allocation of railcars in the corridor. Regardless, this effort has elevated Prince Rupert to a first or second place ranking in each of the last six crop years.

### Malting Barley

Owing to poorer quality, no tenders were issued by the CWB for the movement of malting barley in the 2010-11 crop year. As a result, there were no contracts awarded in this period. Since malting barley represents the sole grain sold on a Free-on-Board basis, all tendered grain shipments moved through to the end of the crop year were sold on an "in-store" basis. [Table 4E-9]

### Originating Carrier

CN secured 54.0% of the volume that moved under tender in the 2010-11 crop year. This denoted a significant gain over the 42.1% share the carrier moved a year earlier, and marked a return to the top-ranked position following the loss of that title to CP twelve months before. Much of this gain reflected the sway given over to barley as a result of the large volume directed into Prince Rupert by the CWB. But it also reflected, at least in part, the efforts of the trade to circumvent their mounting frustration with CP's service by drawing more grain into CN-served elevators. [Table 4E-11]

**Figure 34: Tendered Grain – Share of CWB Shipments**

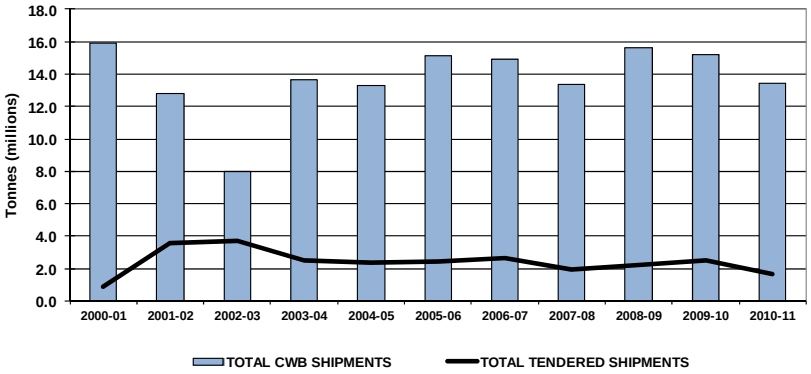
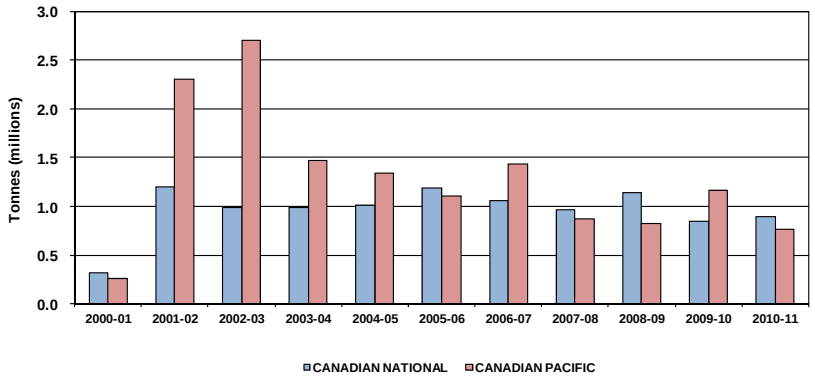



**Figure 35: Tendered Grain – Originating Carrier**



Nevertheless, it should be noted that CP has been the largest originator of tendered grain in six out of the last eleven crop years. While a portion of this dominance can be traced to what has historically been the better availability of higher-quality grains in CP's service area, it remains that CP also serves a larger number of the high-throughput elevators used to effect these shipments. In fact, at the close of the 2010-11 crop year, CP served 100 of the 190 high-throughput facilities situated across western Canada, while CN served 82.[27] This competitive advantage was again revealed when CP secured the greater market share in both the third and fourth quarters.

## Multiple-Car Blocks

The majority of the grain shipped under tender moves in multiple-car blocks. In fact, since the beginning of the CWB's tendering program, the proportion moving in blocks of 25 or more railcars has never fallen below 80%. Such was again the case in the 2010-11 crop year, when 89.8% of tendered grain shipments moved in such blocks. Still, this value fell marginally below the 92.2% value recorded a year earlier. Indicative of this weakening was the fact that shipments in blocks of 50 or more cars assumed a somewhat lesser role, garnering a 61.9% share against 72.3% a year earlier. [Table 4E-12]

In addition to an increase in the proportion of grain moved in less than 25-car blocks, which rose to 10.2% from 7.8% the year before, there were a number of secondary shifts. Chief among these was a sharp increase in the proportion moving in blocks of 25-49 cars, which rose to 27.9% from 19.9% a year earlier. This gain was reflected in correspondingly smaller proportions for larger-block movements. Shipments in blocks of 50-99 cars commanded a 48.6% share against 52.5% the previous year. Movements in blocks of 100 or more cars showed a similar decline, taking a 13.3% share as compared to 19.8% a year earlier. [Table 4E-12]

27 Shortline railways provide service to the remaining eight high-throughput facilities.

**Figure 36: Tendered Grain – Multiple Car Blocks**

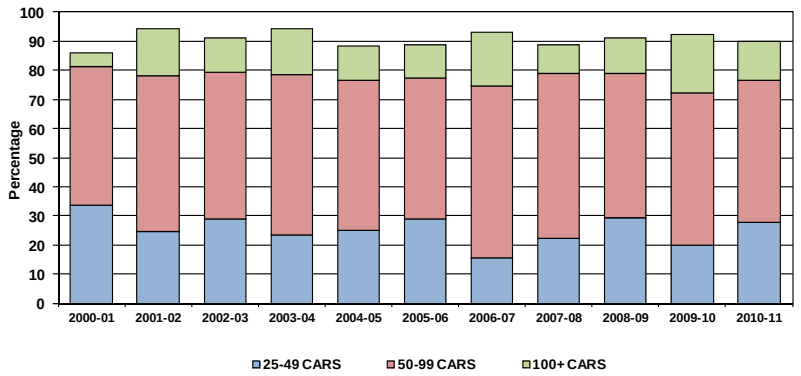
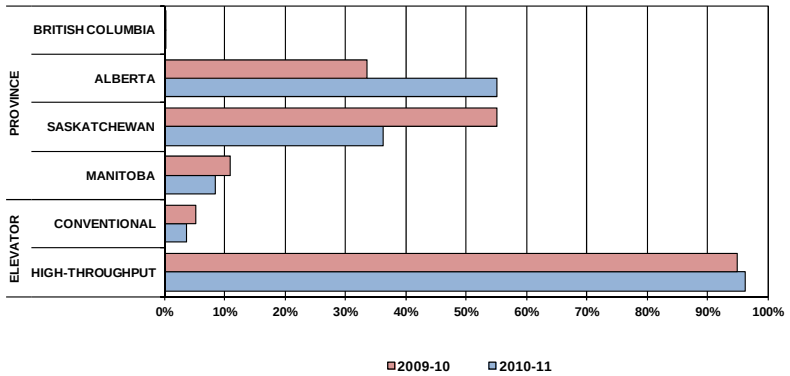



**Figure 37: Tendered Grain - Originations**



## Tendered Origins

With 912,000 tonnes of grain shipped in the 2010-11 crop year, Alberta was the largest originator of tendered grain in western Canada, increasing its share to 55.2% from 33.6% a year earlier. Much of this gain was attributable to the near halving of shipments from Saskatchewan, which fell to 600,100 tonnes, its lowest level since the 2000-01 crop year, earning it a 36.3% share against 55.1% the year previous. This was followed by Manitoba, which originated 139,200 tonnes and saw its share fall to 8.4% from 11.0% a year earlier. British Columbia trailed with shipments of just 2,000 tonnes and a share of 0.1%.

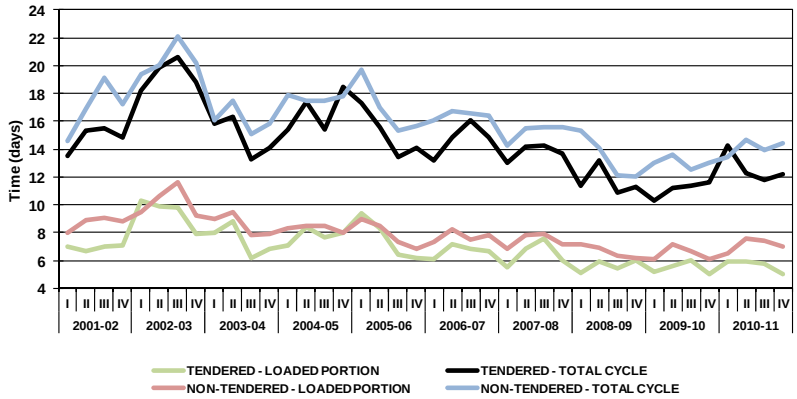
High-throughput elevators have been the principal facilities used in moving tendered grain. From the outset of the GMP, over 90% of the annual tendered grain movement originated at such facilities. In more recent years, this share has moved steadily higher, reaching a record 97.7% in the 2008-09 crop year. Shipments in the 2010-11 crop year were consistent with this, with 96.2% of tendered grain movements having originated at high-throughput elevators. Equally large proportions were attributable to the tonnages originated by each of the provinces, save that of British Columbia, where all tendered grain movements originated at conventional elevators.[28] [Table 4E-14]

## Car Cycles

The average car cycle for tendered grain shipments increased sharply in the 2010-11 crop year, rising 12.6%, to 12.5 days from the 11.1-day average recorded a year earlier. Although this marked a reversal in an established pattern of reduction, much of the increase could be traced to the lengthening of car cycles in the Vancouver corridor. This elongation could itself be tied to the operational problems that had beset CP since the beginning of the crop year. [Table 4E-18]

28 There are no high-throughput elevators situated in British Columbia.

### Figure 38: Car Cycles – Tendered and Non-Tendered Grain




These problems appeared to have given rise to some anomalous results in the first quarter, with the traditional relationship between tendered and non-tendered CWB grain shipments seemingly having been reversed. Still, by the close of the second quarter the car cycle for tendered grain had once again fallen below that of non-tendered CWB grain. To be sure, the average car cycle for tendered grain in the 2010-11 crop year proved to be 11.3% below that of non-tendered CWB grain, 12.5 days versus 14.1 days respectively.

Over the course of the last ten crop years, the time advantage enjoyed by tendered grain shipments has proven fairly consistent, amounting to about 1.4 days, or 8.8%, less than that of non-tendered CWB grain movements. This advantage was manifest in both the loaded as well as the empty portions of the movement. While the statistics presented here continue to indicate that tendered grain movements have a structural advantage over non-tendered ones, there is still an overarching commonality, with both having been adversely impacted by a degradation in railway service during the 2010-11 crop year.

## Accepted Bids

Although the actual winning bids remain confidential, the CWB discloses the range of bids received for each tender it issues. As "price takers," it is in the CWB's best interest to accept the most remunerative bid put forward.[29] As a result, the maximum discount offered by grain companies, and generally accepted by the CWB, provides a reasonable basis by which to compare differences in the bidding behaviours of both the major, and non-major, grain companies.[30]

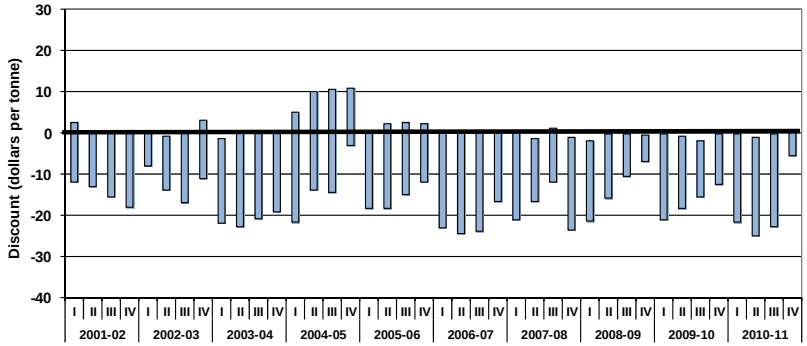
The maximum discounts put forward by both groups show a significant degree of variation over the course of the last decade, be it on a quarterly or an annual basis. To a large extent, these fluctuations reflected their response to changing marketplace conditions. Even so, the maximum discounts offered by the major grain companies typically exceeded those advanced by their smaller competitors, although there were numerous instances where the latter outbid their larger rivals. In addition, the deepest discounts have often manifested themselves early in the crop year, with a gradual easing following thereafter. [Table 4E-19]

The 2010-11 crop year provided a somewhat different pattern in as much as the deepest discounts advanced for wheat came in the second quarter. The maximum bid put forward during the 2010-11 crop year increased by 17.6%, rising to $25.02 per tonne from $21.28 per tonne a year earlier. The maximum bid put forward on barley also increased in the face of a much larger movement, rising to $20.00 per tonne from $4.00 per tonne. Durum was the only grain to post a year-over-year reduction, with its maximum bid slumping to $11.07 per tonne from $23.56 per tonne.

29 The bids submitted are expressed as a per-tonne discount to the CWB's initial price for wheat, durum and barley.

30 As used here, the term "major grain companies" refers specifically to Viterra Inc., Richardson International and Cargill Limited. These companies effectively constitute the three largest grain-handling firms within western Canada. All other grain companies are collectively referred to as non-major.

### Figure 39: Maximum Discount from Initial Price - Wheat




Despite changing market conditions, the major grain companies have retained their position as the industry's overall price leaders. Whether offering deeper discounts, or demanding higher premiums, the bidding patterns of the major grain companies continue to suggest that they have taken a more aggressive approach to tendering than their non-major counterparts. Moreover, what ultimately appears to distinguish the two groups is the non-majors' proclivity to respond more selectively to the tender calls issued by the CWB.

## Market Share

The best indicator of dominance remains the market shares held by the major and non-major grain companies. The share secured by the larger grain companies in the movement of CWB grain, be it tendered or non-tendered, has not changed all that significantly over the course of the last decade. In the case of tendered-grain shipments, their share has floated around 85%, while on non-tendered grain shipments, the share has been a somewhat lesser 75%. [Table 4E-20]

Necessarily, the market shares held by the non-major grain companies have demonstrated a corresponding similarity: amounting to about 15% on tendered grain; and to around 25% on non-tendered grain. Notwithstanding this generalization of the annualized results, the market shares of both groups show greater quarterly volatility, particularly in the case of the non-major grain companies.

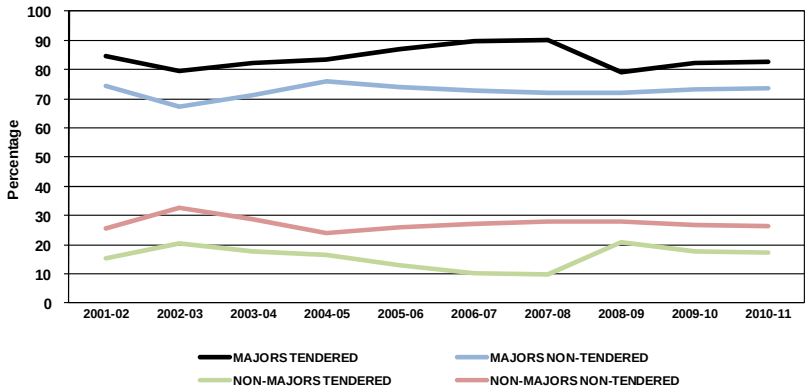
The shares accorded the major and non-major grain companies in the 2010-11 crop year were consistent with these broad measures, amounting to 82.8% and 17.2% respectively in the case of tendered grain shipments, and to 73.8% and 26.2% respectively in the case of non-tendered grain shipments. Notwithstanding these results, it is worth noting that the major grain companies secured an unusually greater share of tendered grain shipments in the second quarter, claiming a 94.9% share against just 5.1% for the non-major grain companies.

Although the competition between grain companies has had a bearing on the stability of these shares, a larger factor appears to stem from the fact that tendered grain movements are effectively capped at 20% of the CWB's shipments to the four ports in western Canada. More particularly, the share accorded to the smaller grain companies on the movement of non-tendered grain has been partially safeguarded by the CWB's general car allocation mechanisms.

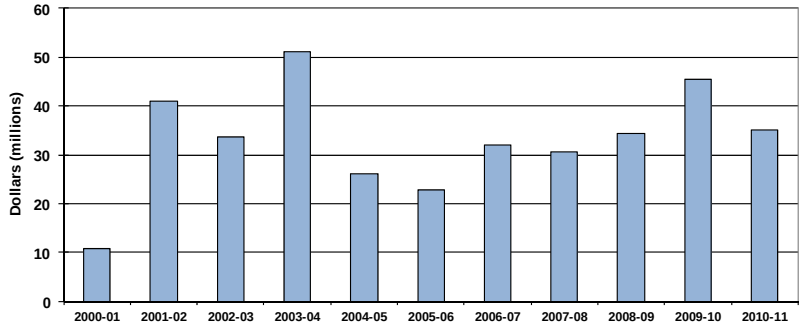
## Financial Savings

In the face of a reduction in tendered grain shipments, the transportation savings accruing to the CWB – which is ultimately passed back to producers through its pool accounts – decreased by 23.0% in the 2010-11 crop year, falling to $35.1 million from $45.6 million a year earlier. It must be remembered, however, that while the freight discounts garnered from the movement of tendered grain figure prominently in the calculation of the CWB's overall transportation savings, they are not the sole offsets included. Freight and terminal rebates, as well as any financial penalties for non-performance, also figure into this calculation.

### Figure 40: Market Share – CWB Grains




### Figure 41: CWB Transportation Savings



## ADVANCE CAR AWARDS PROGRAM

A total of 1.1 million tonnes moved under the CWB's advance car awards program in the 2010-11 crop year, a reduction of 31.9% from the 1.6 million tonnes moved a year earlier. This denoted 8.3% of the total tonnage shipped to the four ports in western Canada by the CWB, and a sizable decrease from the 10.8% share garnered a year earlier.

In conjunction with the 1.7 million tonnes that moved under the CWB's tendering program, a total of 2.8 million tonnes of CWB grain were moved under the auspices of these two programs. This constituted 20.6% of the CWB's total grain shipments to the four ports, but again fell considerably short of the 40% that had been targeted. Moreover, it also denoted the smallest proportion yet given over to these programs since their initiation.

### Traffic Composition

Grain shipped under the advance car awards program often parallels that moved under the tendering program, but frequently differs in a number of respects. Owing to the substantial amount of feed barley that moved under the CWB's tendering program in the 2010-11 crop year, these differences proved even more pronounced. Foremost among these was the fact that wheat constituted a much larger share of the movement, 82.0% as compared to 62.3% for tendered grain shipments. Secondly, all of the remaining 18.0% was given over to durum, whereas it represented just 7.6% of tendered grain shipments. [Table 4F-1]

The largest portion of the volume that moved under the advance car awards program, 480,600 tonnes, or 43.2%, was destined to the port of Vancouver. This was in turn followed by Prince Rupert with 353,700 tonnes, and a 31.8% share; and Thunder Bay with 277,800 tonnes, and a 25.0% share. It is also worth noting that, for the first time since the inception of the advance car awards program, no traffic was directed to Churchill. [Table 4F-2]

**Figure 42: Grain Shipments – Tendered and Advance Car Awards**

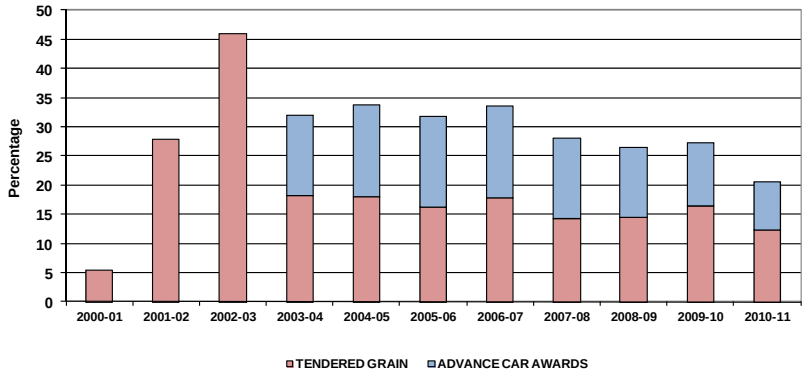
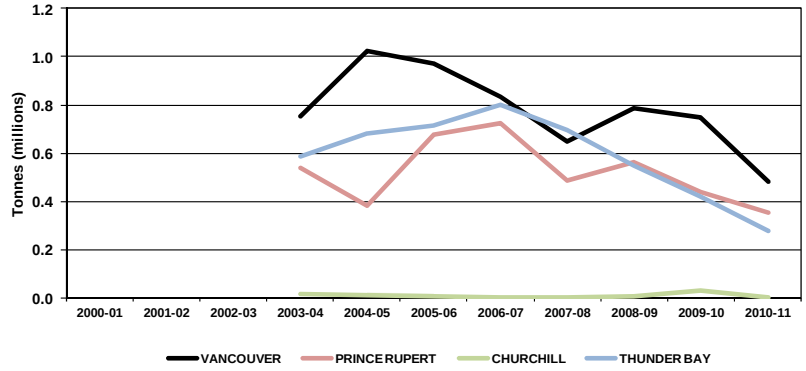



**Figure 43: Advance Car Awards – Destination Port**



## Originating Carrier

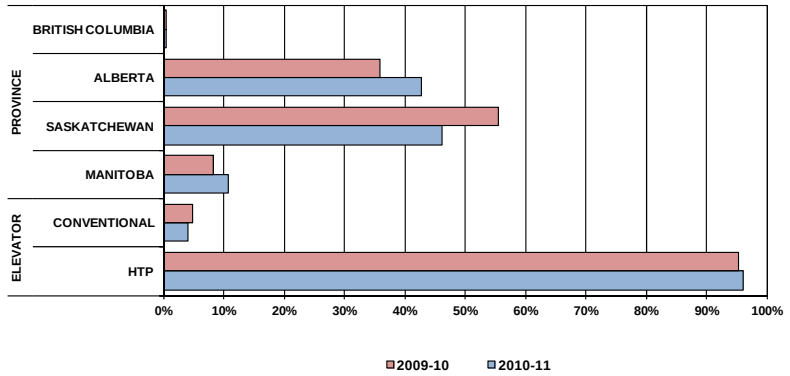
Almost two-thirds, 62.2%, of the volume moved under the advance car awards program in the 2010-11 crop year originated at points local to CP. Although this was somewhat greater than the 59.4% share the carrier secured a year earlier, it contrasted sharply with the 46.0% share garnered by CP on the movement of tendered grain. It was also somewhat atypical for a carrier that had secured a 46.5% share on the movement of western Canadian grain as a whole. It is worth noting that much of this result was shaped by the carrier's very strong showings in the first and second quarters, where it posted shares of 75.3% and 70.2% respectively, rather than in the third and fourth quarters, where its shares fell to the correspondingly lesser values of 50.1% and 52.5%. [Table 4F-3]

## Traffic Origination

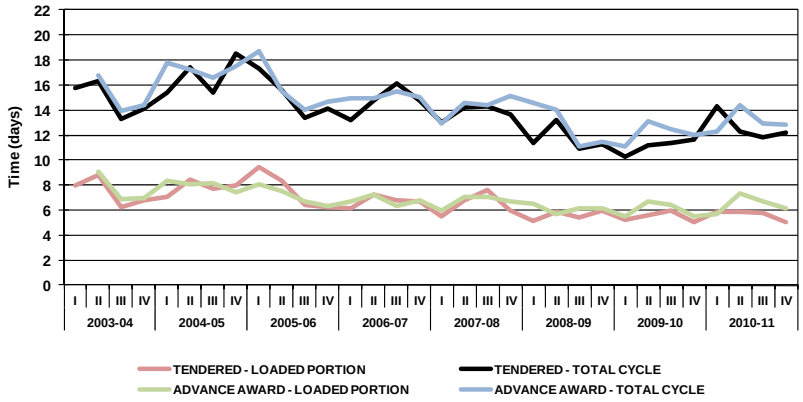
As opposed to tendered grain, the majority of the tonnage moved under the CWB's advance car awards program came from Saskatchewan. Amounting to 512,600 tonnes, these shipments accounted for slightly less than half, 46.1%, of the program's total volume. This share, however, proved markedly greater than the 36.3% share secured by the province on the movement of tendered grain. Alberta and Manitoba followed with corresponding originations of 475,100 tonnes and 118,500 tonnes, and shares of 42.7% and 10.7% respectively. Just 5,900 tonnes of grain was moved from British Columbia. [Table 4F-4]

Virtually all of the grain shipped under the advance car awards program in the 2010-11 crop year, 96.0%, came from high-throughput elevators. This proved slightly greater than the 95.2% share secured by these facilities a year earlier. There was little to differentiate the usage rates for these elevators on a provincial basis save for the fact that shipments from British Columbia only originated at conventional facilities.

### Figure 44: Advance Car Awards – Originations




### Figure 45: Car Cycle – Advance Car Awards



### Car Cycles

The average car cycle for grain shipped under the CWB's advance car awards program totalled 13.2 days in the 2010-11 crop year. This value proved to be 7.3% greater than the 12.3-day average recorded a year earlier, as well as 5.6% greater than the 12.5-day average given over to tendered grain shipments. As with tendered grain, the average cycle for advance-car-award movements also proved to be noticeably lower than that of non-tendered CWB grain, standing 6.4% below the latter's average of 14.1 days. [Table 4F-6]

This ranking was also reflected in the loaded portion of the movement as well, with the advance-car-award program's 6.5-day average proving 14.0% above the 5.7-day average for tendered grain shipments. However, there was little difference between the two groups in terms of the empty movement, although the advance-car-award program's 6.7-day average narrowly bettered the 6.8-day average on tendered grain by 1.5%.

## COMMERCIAL DEVELOPMENTS

### Federal Government Announces Plan for Grain-Marketing Freedom

Following on the heels of its majority win in the federal election of 2 May 2011, the Harper government announced that it would be moving to amend the mandate of the Canadian Wheat Board, and bring greater freedom to prairie farmers in the marketing of their grain.

At issue was the CWB's monopoly over the sale of western Canadian wheat and barley, which dated back to 1943. The Conservative government had first attempted to remove that monopoly in 2006, when it advanced a series of regulatory changes that would have given farmers the right to sell barley in an open market. While this effort was subsequently blocked in a 2007 federal court challenge, the proposition that prairie farmers should have the right to market their wheat and barley in an open-market environment remained a plank in the Conservative Party's election platform.

However, with an electoral majority, the federal government was now able to move forward with its plan to reform the CWB's mandate and broaden the grain-marketing rights of prairie farmers. Very shortly after the new government was sworn into office in mid May, the Minister of Agriculture and Agri-Food announced that he planned to introduce the legislation needed to remove the CWB's monopoly powers in the near future.

Always a contentious issue, the minister's announcement over the elimination of what had come to be known as the CWB's single desk was cheered in some circles and derided in others. While the grain trade expressed support for the proposed change, it also voiced a cautionary note. This concern centred on the need for an orderly and timely transition to an open marketing system, along with sufficient safeguards to protect against possible abuses of market power. For those who supported maintaining the CWB's existing mandate, the elimination of the monopoly was not viewed to be in the best interests of prairie farmers. Moreover, they argued that the *Canadian Wheat Board Act* required the government to consult with farmers before it attempted to make such a sweeping change. Enjoining this were a myriad of concerns over the continued safeguarding of their right to producer-car loading.

Against this backdrop, the minister soon began to give definition to a more specific timetable; one that provided for the introduction of appropriate enabling legislation in the fall of 2011 and the repeal of the CWB's monopoly as of 1 August 2012. While the minister indicated that the government was willing to assist the CWB in its transition to an open-market system, he made clear that the ultimate responsibility for navigating a new commercial course would rest with the organization itself.

Owing to what it believed was the government's legal failure to hold a prerequisite vote on the matter, the CWB announced in late June 2011 that it would invite producers to express their views through a plebiscite of its own. To be conducted over the course of the ensuing summer, the

vote would directly probe farmer sentiment concerning the surrender of the CWB's monopoly.

As the 2010-11 crop year came to an end, it was becoming increasingly clear that a diminished role for the CWB would inevitably lead to a structural transformation within the grain handling industry. Perceiving significant commercial opportunities, a number of companies were beginning to consider their competitive positions within this new framework; assessing both their strengths and weaknesses. Inevitably, much of this focused on their individual grain gathering and delivery networks, whether in the country or at port. But extending from this were also the wider questions relating to commercial preparedness; the viability of the port of Churchill; the future role of Prince Rupert; the potential for another round of corporate mergers and acquisitions; and the possible variation of grain flows within North America itself. Moreover, the practical considerations inherent in meeting the 1 August 2012 conversion date set by the federal government suggested that the trade would have to resolve many of these issues over the ensuing twelve months.

### Producers Raise Concerns Over the Future of Producer-Car Loading

Producer-car loading has evolved and grown significantly over the course of the last decade. But in the face of the planned change to the Canadian Wheat Board's mandate, a number of producers were beginning to raise concerns over the future viability of a practice that dated back to the earliest days of grain growing in western Canada.

The legal right of farmers to load railcars individually extended directly from what they believed was their unjust treatment at the hands of the railways and grain companies in the late 19th century. One aspect of this was the railways' frequent refusal to furnish boxcars to farmers who wished to load these railcars directly from their wagons, which often compelled the farmer to sell his grain to the local elevator operator at whatever price and terms he could secure. This growing displeasure led to the appointment of a Royal Commission, and ultimately the passage of the *Manitoba Grain Act* in 1900, which, among other things, stipulated that the railways were to furnish farmers with the railcars they needed to ship their own grain.

However, the railways largely ignored this requirement in the face of a bumper crop in 1901, and again gave preference to the grain companies when distributing railcars for grain loading. When similar circumstances provided for much the same treatment in 1902, producers moved against the Canadian Pacific Railway in a lawsuit that became known as the "Sintaluta Case."[31] This action effectively cemented the producers' rights, which were affirmed yet again in the passage of the *Grain Act* in 1912. In the aftermath of the Sintaluta Case, producer-car loading increased substantially, ultimately reaching some 51,000 carloads in the 1912-13 crop year. From that high point, however, producer-car shipments began to steadily decline.

By the beginning of the GMP, total producer-car shipments amounted to little more than 3,400 carloads per year. The majority of these were single-car movements, loaded by individual producers using basic farm equipment, such as trucks and augers. The chief economic advantage in this has always been the farmer's ability to avoid the cost associated with commercial elevation, currently estimated at $13.86 per tonne of 1CWRS

31 In the late 19th century, the grain marketing-system in western Canada was dominated by the Canadian Pacific Railway and local elevator companies. In the fall of 1901, a severe boxcar shortage led to widespread transportation problems. Neither the CPR nor the elevator companies were capable of handling what proved to be an unexpectedly large harvest, with farmers losing nearly half of their wheat crop as a result of spoilage. Under recent amendments to the Manitoba Grain Act every railway agent was to maintain an order book that allocated boxcars on a first-come, first-served basis. Despite these provisions, the CPR continued to allocate its supply of boxcars to the elevator companies in preference to the needs of farmers. Moreover, these actions posed a similar threat to the 1902 crop. This violation of the car-distribution clauses prompted the Territorial Grain Growers' Association to take legal action against the CPR agent at Sintaluta, located in what was later to became the Qu'Appelle region of Saskatchewan. In December 1902, magistrates ruled in favour of the farmers represented by the TGGA, upholding the rights of farmers to load grain themselves and compelling the CPR to assign boxcars according to the provisions of the Manitoba Grain Act.

wheat.[32] However, these savings are also reduced by the trucking premiums, grade promotions and other financial benefits that are forgone when a farmer decides not to deliver his grain to an established grain company. In addition, there are the administrative costs that must also be borne. Although these and other incidental costs can vary significantly, it is widely believed that the producer can typically save anywhere from $7.00 to $10 per tonne by loading railcars himself.

Notwithstanding this, a number of farmers believed that they could save even more money if they pooled their energies in an effort to make producer-car loading more efficient. This led to the establishment of the earliest producer-car loading groups in the mid 1990s. Ultimately this evolved into more structured approaches, with a pooling of capital to invest in fixed trackside storage and producer-car loading facilities. The economies of scale inherent in the establishment of such facilities allowed producers to amplify their per-tonne savings, perhaps enlarging their individual net savings to as much as $14.00 per tonne. The financial success of these first installations led to the creation of still others. In time, some expanded their activities to the point where they even acquired the railway branch lines on which they were located, forming new shortline railways in the process.

One of the leaders in this effort was West Central Road and Rail (WCRR), which was formed in 1997 in response to the potential discontinuance of CN rail service to Eston, Saskatchewan. Having organized the first "producer-car train," WCRR soon moved to raise the capital needed for the construction of a permanent facility with the ability to load 38 hopper cars at a time. Since that time, their venture has expanded, establishing another four satellite facilities in the process. Towards the close of the 2010-11 crop year, they had even begun to explore the potential for taking over railway operations from CN. Efforts such as this are largely responsible for spurring producer-car loading to approximately 13,000 carloads annually.

32 The cost of elevation cited here is drawn from Table 6A-10A.

Yet these organizations have remained entirely dependent on the CWB for the marketing of the grain they grow, gather and ship. To be sure, the CWB markets over 95% of producer cars loaded in western Canada, with the remaining 5% being devoted primarily to the movement of oats into the American market. By the close of the 2010-11 crop year, it was the potential severing of this aspect in their relationship with the CWB that was giving producer-car loaders the most concern. In essence, would they be able to market their own grain if the CWB ceased to be a significant force in the grain industry? If not, could they forge new partnerships with grain companies or exporters themselves?

### Final Report on Railway Service Released

In response to the concerns that had been raised by the majority of rail shippers regarding the state of railway service in Canada, the federal government committed itself in early 2008 to a review of railway service. The general focus of this review was to examine the performance of the freight logistics system in Canada with an eye towards identifying any problems or issues respecting railway service. This was also to include those issues stemming from the operations and activities of stakeholders other than the railways, including shippers, receivers and other logistics partners.

The review was to be conducted in two distinct phases. The first phase centred on gathering and analyzing data relating to the railways' performance during a two-year period between 2006 and 2008. The second would see a panel of eminent persons appointed to review the work completed in the first phase, and to further that investigation by consulting with various parties from the broader stakeholder community regarding the problems that had been identified.

By early 2010 the work associated with the first phase of the review had essentially been completed, and the three-member panel was moving forward with its planned consultations with the stakeholder community. Representatives from all corners of the grain industry were actively involved in this process, which resulted in submissions from the Western

Grain Elevator Association, the Inland Terminal Association of Canada, and numerous commodity and producer groups. For the most part, these submissions not only voiced anew the grain industry's long-standing concerns over the reliability and consistency of existing railway service, but also argued for stronger regulatory measures as a means of tempering what was still widely regarded as the extensive market power of railways.

The panel formally submitted its final report to the Minister of State (Transport) in late December 2010.[33] After due consideration, the Government of Canada formally released the panel's report on 18 March 2011. In broad terms, the panel found that there was an imbalance in the commercial relationship between the railways and other stakeholders, but believed that a commercial – rather than a regulatory – approach provided the best means of rectifying this imbalance. Stemming from this analysis were four key recommendations: that the railways should provide a minimum 10-days advance notice of service changes; that the railways should enter into good-faith negations with shippers to establish service agreements; that Transport Canada should assist the railways in developing a fair and balanced dispute-resolution process with its customers; and that the railways should provide for improved supply-chain visibility through enhanced bilateral performance reporting.

On the whole, the federal government accepted these recommendations, promising a four-point course of action encompassing: a six-month facilitated process to negotiate a template service agreement and commercial dispute resolution mechanism; the introduction of a bill in Parliament that would give shippers the right to a service agreement; and to establish a Commodity Supply Chain Table that would address logistical concerns and develop performance metrics to improve competitiveness. Also, Transport Canada and Agriculture and Agri-Food Canada were to initiate an in-depth analysis of the grain supply chain.

33 The panel's final report followed the October 2010 public release of an interim report, which was used to elicit commentary from stakeholders on the panel's principal findings and recommendations.

Although the recommendations were initially met with mixed reactions from the stakeholder community, the government's initiative gave shippers new hope. While some within the grain industry still expressed disappointment, claiming that the government's plan did not go far enough in addressing its concerns, the railways argued that it was already going too far down the road towards reregulation of the industry. Notwithstanding any of this, the calling of a federal election just one week later, effectively postponed the implementation of these plans.

### Grain Shipments Affected by Deteriorating Railway Service

Notwithstanding the federal government's efforts at addressing the broader issues surrounding railway service, many in the grain industry had grown frustrated with what seemed to be CP's deteriorating service. At the outset of the 2010-11 crop year much of this appeared to stem from the operational problems that still afflicted the carrier after the washout of its mainline east of Medicine Hat, Alberta, in June 2010.

But there were other issues that compounded these problems, not the least of which related to a heightened demand for services that taxed CP's available supply of locomotives and crews. In addition, CP had moved to follow the lead taken by CN a few years before, instituting new labour management practices in its Vancouver Terminal. It is believed that the work-to-rule response coming from running-trade employees led to a discernable slowdown in the service given to most CP-served facilities in the lower mainland, including the grain terminals situated on the south shore of the Burrard Inlet. This appears to have been a short term situation which, for the most part, was addressed and corrected by late fall.

But to make matters worse, CP had also begun to grapple with the unusually heavy accumulation of snow in the Rockies, which precipitated avalanches and control measures that repeatedly disrupted railway operations between December 2010 and March 2011. This served only to compound the delays and car-supply problems that had been plaguing

shippers since the beginning of the crop year. Moreover, they had begun to adversely impact other facets of the supply chain.

Grain movements out of the country were reduced as CP's car supply became more constricted, primarily as a result of the elongation in the carrier's car cycle during this period. This occasioned significant delays to ships awaiting the arrival of specific grains at Vancouver. By the close of the third quarter, what had previously been shipper frustration had given way to anger, particularly as it concerned the mounting financial burden arising from sharply higher vessel demurrage bills.

Fortunately, the situation improved dramatically as the return of spring removed many of the obstacles that had undermined the carrier's ability to provide consistent service. More importantly, CP had begun to whittle away at its backlog in delayed grain shipments. While loaded transit times were not immediately reduced, the flow of grain into the ports was vastly improved. Moreover, a 20% surge in the carrier's fourth-quarter grain deliveries did much to help redress the problem with vessels awaiting grain at Vancouver, and where delays began declining steadily through to the end of the crop year.

### Customs Duty Relief Holds Promise of Great Lakes Fleet Renewal

The federal Minister of Finance announced in early October 2010 that the government had decided to waive its long-standing 25% customs duty on all general cargo vessels and tankers, as well as ferries longer than 129 metres, imported into Canada. The measure, which was to be applicable on any ship imported into the country from 1 January 2010 onwards, was aimed chiefly at aiding Canada's marine transportation industry with the renewal of its aging fleet of vessels.

The initiative came following consultations with a broad range of stakeholders, which included not only representatives from all areas of the marine transportation industry, but interested provincial governments as well as companies in the manufacturing, agriculture and energy sectors. Many had argued that the 25% duty imposed on imported vessels, which also constituted the highest rate paid on any industrial good, was unnecessarily punitive given that no such ships had been built in Canada since 1985. Moreover, such costs would ultimately be borne by Canadian shippers in the form of higher freight rates. By moving to ease this financial burden, they maintained that the government could accelerate the needed renewal of the Great Lakes fleet – which is largely composed of 35 to 40 year old vessels – with cleaner, safer and more economically efficient ships.[34]

By December 2010 it appeared that the change in governmental policy was beginning to have its desired effect. Algoma Central Corporation, the operator of one of Canada's largest domestic vessel fleets, announced that it had entered into a contract with Nantong Mingde Heavy Industries, a Chinese shipyard, for the construction of four new Equinox Class freighters, along with an option to purchase two more.[35] This $205-million investment was intended to provide for the replacement of vessels already approaching the end of their economic lives beginning in 2013.

The change in policy, which had been welcomed by the Canadian Wheat Board, also spurred it into making an unusual investment decision.[36] In

34 Complementing this new framework, was the government's decision to also remit the $15.3 million in customs duties paid on two tankers imported from Turkey by Algoma Central Corporation in 2008 and 2009, as well as the $119.4 million paid on four large ferries imported from Germany by British Columbia Ferry Services Inc. (BC Ferries) between 2007 and 2009.

35 Although the Equinox Class freighters are to be built in China, the ship's design was spearheaded in Canada by Algoma Central Corporation. Owing to the physical constraints imposed by the St. Lawrence Seaway system, these ships will differ little in terms of their outward dimension and appearance from conventional Great Lakes freighters, but will incorporate a number of technological advancements that will provide for enhanced operational efficiency in carrying more cargo, at a faster speed and in greater safety than its predecessors.

36 The CWB has long used the Great Lakes fleet to move western Canadian grain from Thunder Bay, through the St. Lawrence Seaway, and onto eastern destinations. The typical lake freighter can handle about 26,000 tonnes of wheat, an amount roughly equivalent to 300 railcars. With about 75% of its eastbound grain movements using this system, the CWB expected that the elimination of the customs duty on new vessels would generate longer-term

early February 2011 the CWB announced that it had placed an order for two Equinox Class freighters of its own. The CWB order, which actually figured into a three-vessel expansion of Algoma Central Corporation's four-freighter purchase, would now result in seven new ships being earmarked for future service on the Great Lakes. All of these vessels are slated to be operated by a third party, Seaway Marine Transport, acting on the behalf of their owners.[37]

The CWB estimated the cost of purchasing the two ships at about $65 million, to be spread over four crop years. It also estimated the financial contribution to be derived from the operation of the vessels, and returned to farmers through the CWB's pool accounts, at approximately $10 million annually. Despite this, the CWB's investment decision came under fire from a number of farmer groups, with many arguing that it constituted an inappropriate use of the organization's funds. But casting an even longer shadow over the project was the uncertainty that came from the Minister of Agriculture and Agri-Food's announcement that the federal government intended to change the mandate of the CWB itself. With the close of the 2010-11 crop year, the future disposition and handling of vessel order was in question.[38]

### Montreal Port Authority Leases Grain Terminal to Viterra

Following several years of study, and the placement of new emphasis on reducing costs, the Montreal Port Authority (MPA) decided to seek a private operator for its grain terminal. In order to properly gauge the appeal for this, the MPA issued a formal Call for an Expression of Interest on 1 September 2010. Following an appropriate evaluation process, it was revealed in late January 2011 that the MPA had entered into discussions with Canada's largest grain handler, Viterra, Inc., concerning its possible future operation of the facility.

Built in the early 1960s, the MPA's grain terminal is a licensed transfer elevator with 262,000 tonnes of storage capacity. Although the majority of the western Canadian grain handled through the facility has traditionally been received from vessels descending the St. Lawrence Seaway, its inbound rail and truck shipments cater primarily to grain grown in eastern Canada. In 2008 the terminal received a total of 1.2 million tonnes of grain, with 38% having been delivered by ship; 33% by truck; and 29% by rail.

Unlike other grain terminals in Canada, all of which are privately operated, the Montreal facility had remained under the management of the MPA since its construction. Increasingly, they came to view this as a commercial disadvantage. With an eye towards improving its competitive position while still providing a high calibre of service to Quebec grain producers, the MPA believed that transferring the management of this facility to a firm specializing in grain handling and merchandising would help consolidate and increase the amount of grain moving through the port. To be sure, grain movements through the port of Montreal had been declining in the face of changing market conditions and transportation alternatives since the 1970s.

In late April 2011 it was announced that the two parties had in fact signed an agreement that would see Viterra lease the MPA grain terminal, and take over its operation effective 1 July 2011. For Viterra, taking over the MPA grain terminal presented the company with an opportunity to fill a void in its own network, extending its physical reach beyond the terminals it already owned on the west coast and at Thunder Bay, Ontario. The terminal, which operates year-round, also handles a wide variety of crops – including wheat, corn, barley, soybeans, peas, and

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savings for western Canadian farmers, who ultimately bear a significant portion of the higher costs associated with operating the older and less efficient vessels.

37 In addition to the two vessels being purchased by the Canadian Wheat Board, a third was to be purchased by Upper Lakes Group Inc. Seaway Marine Transport (SMT) was a partnership between Algoma Central Corporation and Upper Lakes Group Inc. In late February, Algoma Central Corporation announced that it was acquiring the Upper Lakes Group's interest in SMT, which would continue to operate as a wholly-owned subsidiary. All seven vessels were to be crewed and operated by SMT on behalf of their owners.

38 Cancellation of the contract would presumably entail the CWB's payment of a penalty to the ship builder, the exact size and nature of which is unknown.

lentils. More importantly, the facility provides the company with direct access to the eastern shipping routes that serve Europe and other international markets.

In addition to broadening Viterra's operations, the takeover of the MPA grain terminal was also regarded as an opportunity for the company to enhance its domestic and foreign sales. To this end, Viterra opened a new merchandising office in Montreal in early May 2011, aimed specifically at leveraging its competitive strength in facilitating the movement of grains and oilseeds to markets in North American as well as offshore.

# Section 5: System Efficiency and Performance

| Indicator Description | Table | 1999-00 | 2008-09 | 2009-10 | 2010-11 Q1 | Q2 | Q3 | Q4 | YTD | % VAR |
|---|---|---|---|---|---|---|---|---|---|---|
| **Country Elevator Operations** | | | | | | | | | | |
| Average Elevator Capacity Turnover Ratio | 5A-1 | 4.8 | 6.6 | 6.2 | 1.4 | 1.4 | 1.4 | 1.5 | 5.7 | -8.4% |
| Average Weekly Elevator Stock Level (000 tonnes) | 5A-2 | 3,699.3 | 2,686.7 | 2,832.6 | 2,698.3 | 2,878.9 | 3,174.2 | 2,152.2 | 2,722.9 | -3.9% |
| Average Days-in-Store (days) | 5A-3 | 41.7 | 27.7 | 30.5 | 30.1 | 33.9 | 36.2 | 23.5 | 30.8 | 1.0% |
| Average Weekly Stock-to-Shipment Ratio – Grain | 5A-4 | 6.2 | 3.9 | 4.3 | 4.3 | 4.7 | 5.5 | 3.4 | 4.5 | 4.7% |
| **Railway Operations** | | | | | | | | | | |
| Railway Car Cycle (days) – Empty Movement | 5B-1 | 10.7 | 6.6 | 6.7 | 7.2 | 7.2 | 7.0 | 7.4 | 7.2 | 6.8% |
| Railway Car Cycle (days) – Loaded Movement | 5B-1 | 9.2 | 6.8 | 6.5 | 6.8 | 7.5 | 7.2 | 7.0 | 7.1 | 9.2% |
| Railway Car Cycle (days) – Total Movement | 5B-1 | 19.9 | 13.4 | 13.2 | 14.0 | 14.7 | 14.1 | 14.4 | 14.3 | 8.2% |
| Railway Car Cycle (days) – Non-Special Crops | 5B-2 | 19.3 | 13.3 | 13.1 | 13.9 | 14.6 | 14.0 | 14.3 | 14.2 | 8.6% |
| Railway Car Cycle (days) – Special Crops | 5B-3 | 25.8 | 15.6 | 15.3 | 14.6 | 16.1 | 15.4 | 15.4 | 15.3 | -0.1% |
| Railway Transit Times (days) | 5B-4 | 7.8 | 5.5 | 5.5 | 5.7 | 6.3 | 6.1 | 5.9 | 6.0 | 9.8% |
| Hopper Car Grain Volumes (000 tonnes) – Non-Incentive | 5B-5 | 12,718.7 | 5,674.4 | 5,747.7 | 2,052.4 | 1,199.3 | 1,019.1 | 1,229.4 | 5,500.2 | -4.3% |
| Hopper Car Grain Volumes (000 tonnes) – Incentive | 5B-5 | 12,945.9 | 21,118.2 | 22,030.1 | 5,251.5 | 5,200.1 | 5,197.7 | 5,947.1 | 21,596.5 | -2.0% |
| Hopper Car Grain Volumes ($ millions) – Incentive Discount Value | 5B-6 | $31.1 | $132.0 | $146.4 | $34.6 | $35.4 | $35.8 | $39.8 | $145.5 | -0.7% |
| Traffic Density (tonnes per route mile) – Grain-Dependent Network | 5B-7 | 442.5 | 527.3 | 608.5 | 644.8 | 532.4 | 457.3 | 504.6 | 534.8 | -12.1% |
| Traffic Density (tonnes per route mile) – Non-Grain-Dependent Network | 5B-7 | 292.5 | 335.2 | 332.5 | 350.2 | 315.3 | 321.3 | 376.8 | 340.9 | 2.5% |
| Traffic Density (tonnes per route mile) – Total Network | 5B-7 | 330.4 | 373.8 | 387.9 | 409.5 | 358.9 | 348.7 | 402.5 | 379.9 | -2.1% |
| **Terminal Elevator Operations** | | | | | | | | | | |
| Average Terminal Elevator Capacity Turnover Ratio | 5C-1 | 9.1 | 10.0 | 10.0 | n/a | n/a | n/a | n/a | 9.9 | -1.0% |
| Average Weekly Terminal Elevator Stock Level (000 tonnes) | 5C-2 | 1,216.2 | 1,346.4 | 1,274.8 | 1,265.7 | 1,179.3 | 1,213.8 | 1,131.0 | 1,197.8 | -6.0% |
| Average Days-in-Store – Operating Season (days) | 5C-3 | 18.6 | 16.7 | 16.2 | 18.5 | 16.1 | 14.8 | 14.2 | 15.5 | -4.3% |
| **Port Operations** | | | | | | | | | | |
| Average Vessel Time in Port (days) | 5D-1 | 4.3 | 4.6 | 6.2 | 7.1 | 10.2 | 14.3 | 9.0 | 9.9 | 59.7% |
| Annual Demurrage Costs ($millions) | 5D-4 | $7.6 | $11.2 | $11.2 | n/a | n/a | n/a | n/a | $50.1 | 348.4% |
| Annual Dispatch Earnings ($millions) | 5D-4 | $14.5 | $37.6 | $17.2 | n/a | n/a | n/a | n/a | $9.4 | -44.9% |
| Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Wheat | 5D-5 | 3.1 | 3.2 | 2.3 | 2.6 | 2.6 | 1.9 | 2.5 | 2.4 | 2.4% |
| Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Canola | 5D-5 | 2.5 | 1.5 | 1.5 | 0.5 | 0.3 | 0.7 | 1.1 | 0.7 | -56.8% |
| Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Wheat | 5D-5 | 5.6 | 4.5 | 5.3 | 5.5 | 4.9 | 6.3 | 3.1 | 4.7 | -11.5% |
| Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Canola | 5D-5 | 2.8 | 5.5 | 3.9 | 6.0 | 4.6 | 5.9 | 3.4 | 4.6 | 18.9% |
| Avg. Weekly Stock-to-Shipment Ratio – VCR – CWB Grains | 5D-7 | 3.5 | 3.1 | 2.8 | 3.3 | 3.0 | 4.5 | 4.2 | 3.7 | 33.5% |
| Avg. Weekly Stock-to-Shipment Ratio – VCR – Non-CWB Grains | 5D-7 | 3.6 | 2.5 | 1.8 | 0.7 | 1.0 | 0.9 | 1.2 | 1.0 | -47.9% |
| Avg. Weekly Stock-to-Shipment Ratio – TBY – CWB Grains | 5D-7 | 4.6 | 4.6 | 4.8 | 5.5 | 5.0 | 5.5 | 3.0 | 4.6 | -5.2% |
| Avg. Weekly Stock-to-Shipment Ratio – TBY – Non-CWB Grains | 5D-7 | 3.3 | 4.2 | 5.2 | 5.5 | 5.4 | 7.5 | 3.5 | 5.1 | -2.4% |
| Terminal Handling Revenue ($millions) | 5D-8 | $274.8 | $369.2 | $389.2 | n/a | n/a | n/a | n/a | $416.2 | 6.9% |
| CWB Carrying Costs ($millions) | 5D-8 | $94.7 | $170.1 | $147.6 | n/a | n/a | n/a | n/a | $146.6 | -0.7% |
| **System Performance** | | | | | | | | | | |
| Total Time in Supply Chain (days) | 5E-1 | 68.1 | 49.9 | 52.2 | 54.3 | 56.3 | 57.1 | 43.6 | 52.3 | 0.3% |

## COUNTRY ELEVATOR OPERATIONS

The net effect of changes in primary elevator throughput and storage capacity is reflected in the system's capacity-turnover ratio. Owing to both a 4.7% reduction in country elevator shipments as well as a 0.3% increase in capacity, the turnover ratio for the 2010-11 crop year declined by 8.4%, falling to 5.7 turns from 6.2 turns a year earlier. [Table 5A-1]

This decline reflected the reductions that were reported by a majority of the provinces. Manitoba posted the most significant of these, with its ratio falling by 22.3%, to 5.2 turns from 6.7 turns. This was followed by a 21.0% reduction for British Columbia, with its ratio declining to 3.6 turns from 4.6 turns a year earlier. Saskatchewan registered a lesser decline of 14.0%, which resulted in its turnover ratio falling to 5.2 turns from 6.0 turns. Running counter to these results was Alberta, which reported a 15.6% gain that raised its ratio to 7.2 turns from 6.2 turns.

While the turnover ratio is sensitive to changes in volume, much of the real improvement witnessed since the beginning of the GMP has come from a reduction in storage capacity. Although the primary elevator system's storage capacity has now begun to increase, its net loss since the beginning of the GMP amounts to about 1.1 million tonnes, or 16.4%. Had storage capacity not been reduced to this degree, the turnover ratio for the 2010-11 crop year would have been 4.8 turns instead of 5.7 turns. This 0.9-turn differential underscores an estimated 19.6% improvement in handling efficiency over the last twelve years.

### Elevator Inventories

In assessing the operational efficiency of the primary elevator system, the GMP also considers the amount of grain maintained in inventory. Beyond measuring stock levels, this examination takes into account the amount of time grain spent in inventory, along with its ability to satisfy immediate market needs.

**Figure 46: Primary Elevator Capacity Turnover Ratio**

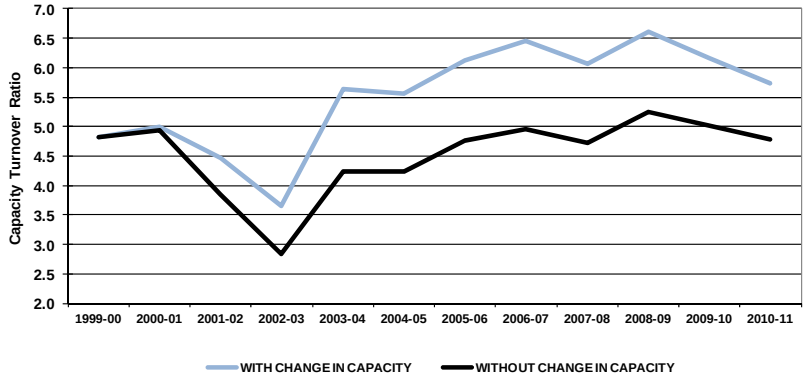
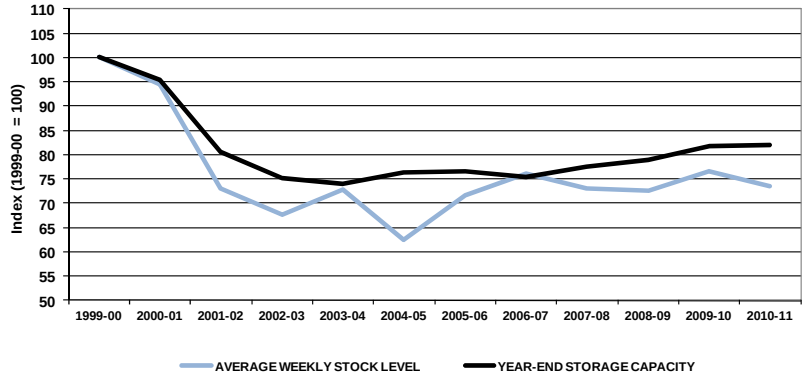



**Figure 47: Change in Average Weekly Stock Levels**



In a reflection of the general reduction in storage capacity witnessed since the beginning of the GMP, grain inventories have also declined. With approximately half of the system's storage capacity employed in maintaining inventories, today's primary elevator stocks have been trimmed back to about three-quarters of the benchmark 3.7-million-tonne average first witnessed in the GMP's base year. The 2010-11 crop year saw a 3.9% decrease in prairie grain inventories, with the average falling to 2.7 million tonnes from 2.8 million tonnes a year earlier. [Table 5A-2]

Within this broader trend, the quarterly stock level continued to follow the cyclical pattern seen since the beginning of the GMP, rising to a high midway through the crop year before dropping off sharply in the last quarter. But compounding this was the growing problem with railway service, which increased the amount of time grain spent in inventory during this same period.

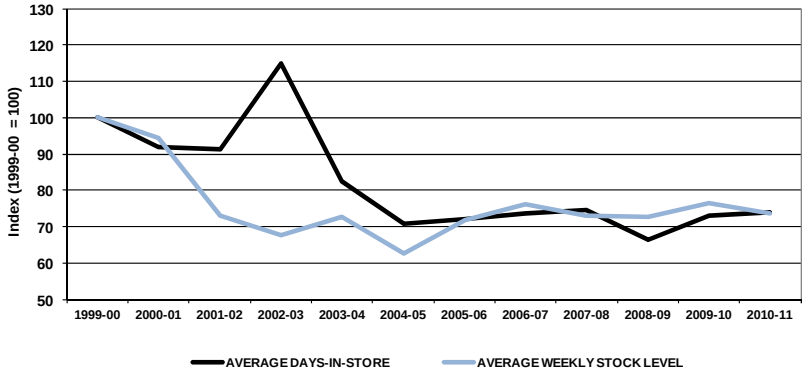
Even with such problems, the broader average for time spent in inventory has been declining in conjunction with the general reduction in stocks. From a benchmark 41.7 days in the GMP's base year, the average number of days-in-store fell to as little as 27.7 days, a record set in the 2008-09 crop year. Still, the 2010-11 crop year saw the average increase by 1.0%, to 30.8 days from 30.5 days a year earlier. [Table 5A-3]

## Stock-to-Shipment Ratios

The adequacy of country elevator inventories can be gauged by comparing their level at the end of any given shipping week, with the truck and railway shipments actually made in the next seven days. In recent years the quarterly average stock-to-shipment ratio has generally fluctuated around a value of 4.0. As such, the inventory on hand at the close of any given week typically exceeded that required for shipment in the next by a factor of at least four.[39] These ratios are, however, heavily

39 In the event that the ratio of these two values amounts to 1.0, it would mean that country elevator stocks exactly equalled shipments made in the following week. A ratio above this value would denote a surplus supply in the face of short-term needs.

### Figure 48: Change in Average Weekly Stocks and Average Days in Store




### Figure 49: Country Elevator Days-in-Store

| Province | Days-in-Store | Change | Grain | Days-in-Store | Change |
|---|---|---|---|---|---|
| Alberta | 27.5 days | Down 19.6% | CWB Grains | | |
| Saskatchewan | 32.0 days | Up 8.5% | Durum | 26.0 days | Down 39.5% |
| Manitoba | 30.8 days | Up 20.7% | Wheat | 35.2 days | Down 4.3% |
| British Columbia | 45.1 days | Up 32.3% | Barley | 21.1 days | Up 0.5% |
| | | | Non-CWB Grains | | |
| | | | Peas | 24.4 days | Up 1.7% |
| | | | Canola | 28.5 days | Up 46.2% |
| | | | Oats | 41.7 days | Up 64.2% |
| | | | Flaxseed | 34.4 days | Up 82.0% |

influenced by the amount of time that grain spends in inventory, and mimic their movement rather closely. As the average amount of time spent in inventory has fallen, so too has the stock-to-shipment ratio, which reached a GMP low of 3.9 in the 2008-09 crop year. [Table 5A-4]

Since then the overall stock-to-shipment ratio has moved moderately higher. With the close of the 2010-11 crop year, the ratio had gained another 4.7%, rising to 4.5 from 4.3 a year earlier. As with other measures, this annualized result obscures the progressive increase in the quarterly ratio, which rose from 4.3 in the first quarter to a height of 5.5 in the third.[40] This in turn reflected the aging of grain inventories that were, at least in part, occasioned by railway service delays during this period.

## RAILWAY OPERATIONS

In the context of the GHTS, the car cycle measures the average amount of time taken by the railways in delivering a load of grain to a designated port in western Canada, and then returning the empty railcar back to the prairies for reloading. Against a record of general improvement, the average car cycle rose noticeably higher in the 2010-11 crop year, with the average increasing 8.2%, to 14.3 days from 13.2 days a year earlier. This increase was underscored by markedly higher quarterly averages as well, which ranged from a low of 14.0 days in the first to a high of 14.7 days in the second, before then pulling back in the latter half of the crop year.

Although anomalous against the longer-term record, these increases were symptomatic of the operational problems that had been affecting railway service since the beginning of the year, and were felt in each of the primary corridors. With a 9.2% rise, movements in the Thunder Bay corridor posted the largest overall increase, with the average cycle climbing to 13.9 days from 12.8 days a year earlier. This was followed

40 The 5.5 ratio cited here for the third quarter proved to be the largest value recorded for the period since the 2003-04 crop year.

**Figure 50: Primary Elevators – Stock-to-Shipment Ratio**

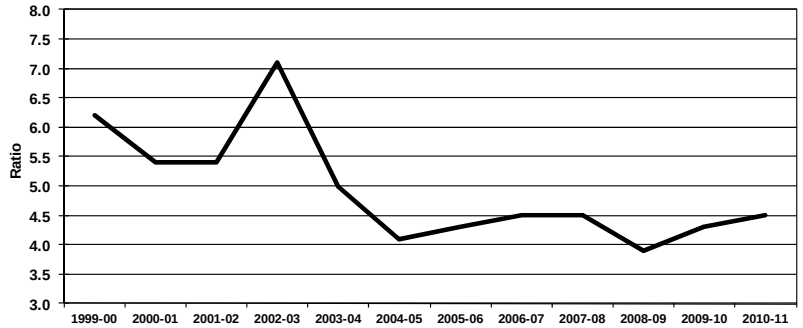
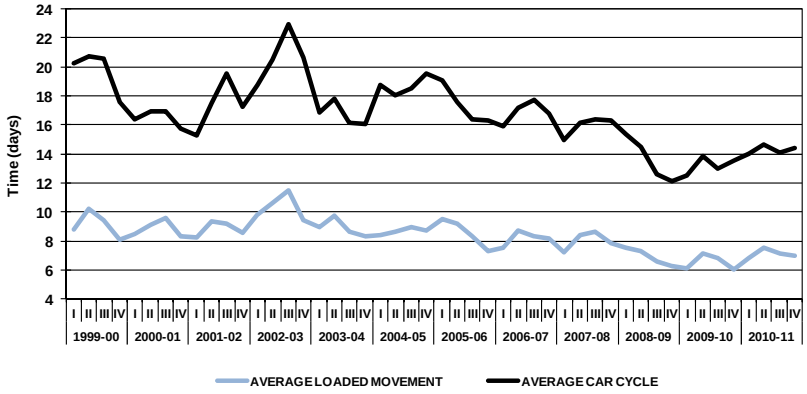



**Figure 51: Average Railway Car Cycle**



by an 8.8% increase in the Vancouver corridor, which saw its average rise to 15.2 days from 14.0 days. The increase posted in the Prince Rupert corridor proved a notably lesser 4.5%, with the average rising to 12.5 days from 12.0 days twelve months earlier. [Table 5B-1]

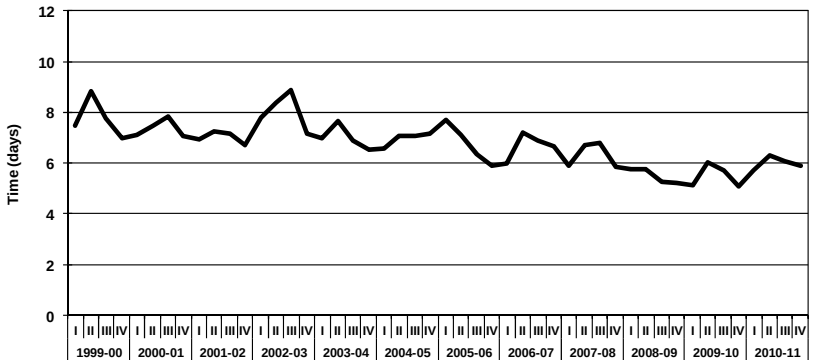
These results extended equally to the loaded and empty portions of the car cycle. In the case of the former, the average time under load rose by 9.2%, to 7.1 days from 6.5 days a year earlier. A 6.8% increase was observed for the empty portion of the movement, with the average rising to 7.2 days from 6.8 days.

Although CN and CP both posted increases in their average cycles, the CN gain of 3.4% paled against the 12.7% gain registered by CP. The results proved more mixed when gauging changes to the loaded and empty portions of each carrier's car cycle. In the case of CN, the carrier posted a 9.7% increase in the loaded portion of its average cycle against a 3.5% reduction in its empty portion. In comparison, CP posted a marginally lesser 8.6% increase in the loaded portion of its movement versus a much heftier 16.3% increase on its empty component.

Notwithstanding the overarching seasonal influences, these results drew attention to the operational problems that had been undermining CP's service since the beginning of the crop year. What is more, the situation only worsened in the second and third quarters as an unusually heavy accumulation of snow in the southern Rockies brought still further disruptions to railway service in the Vancouver corridor.

Despite the general elongation in cycle times, there were exceptions. The most visible of these related to the movement of special crops, where the average of 15.3 days actually declined by 0.1%. Still, this contrasted with non-special-crop movements, where the average car cycle rose by 8.6%, to 14.2 days from 13.1 days a year earlier. Notwithstanding these results, the data continues to suggest that there is a structural disadvantage inherent in the railway service received by special crops. [Tables 5B-2 and 5B-3]

**Figure 52: Average Loaded Transit Time**




## Loaded Transit Time

More important than the railways' average car cycle, is the average loaded transit time. This measure focuses on the amount of time taken in moving grain from a country elevator to a port terminal for unloading. As with the overall car cycle, this indicator has moved gradually lower since the beginning of the GMP. By the close of the 2009-10 crop year, 2.3 days had been shed from the 7.8-day average reported ten years earlier. Still, the railways' loaded transit time rose noticeably in the 2010-11 crop year, increasing 9.8%, to an average of 6.0 days from 5.5 days a year earlier. As with the average car cycle, this result was largely shaped by the markedly higher averages observed in the second and third quarters, which arose out of the railway service problems discussed previously.

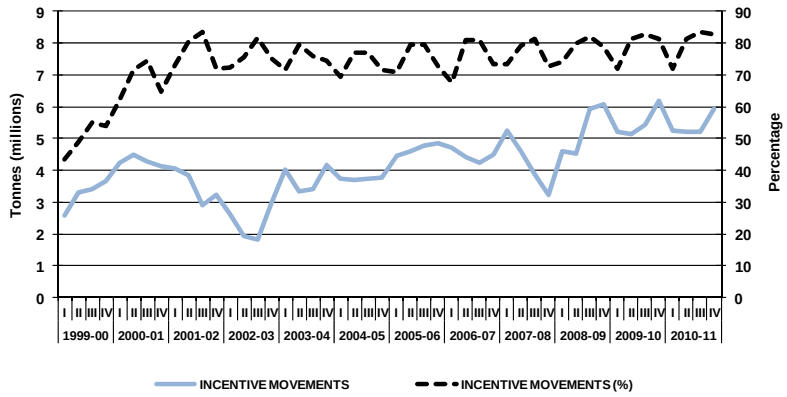
The consistency of the service grain shippers receive from the railways remains a focal point of concern for many. In an effort to gauge that consistency, the GMP examines the coefficient of variation surrounding the average loaded transit time. Through to the close of the 2009-10 crop year, the coefficient of variation fell by a factor of 24.7%, to 30.8% from 42.9%.[41] Although this suggests that there has been a marked improvement in consistency, there nevertheless remains a high degree of variability in the underlying distributions. At issue is whether the railways can materially improve upon this performance over the longer term. In fact, with the 2010-11 crop year's coefficient having increased to 32.3% from the 30.8% reported a year earlier, it marginally worsened. [Table 5B-4]

## Multiple-Car Blocks

In the 2010-11 crop year, 21.6 million tonnes of grain moved in the multiple-car blocks that provided for discounted railway freight rates. Although this denoted a 2.0% reduction from the 22.0 million tonnes handled a year earlier, it represented the third consecutive instance where MCB shipments actually exceeded 20 million tonnes.

From the beginning of the GMP, it has been clear that the largest block sizes were the most popular with grain shippers. This stems simply from the fact that they provide the deepest monetary discounts, allowing the grain companies to realize the greatest financial returns. Moreover, both railways promoted these larger block sizes by systematically increasing the discounts on shipments in blocks of 50 or more cars. At the same time, they also moved to reduce, and ultimately eliminate, the discounts on movements in blocks of 25-49 cars.[42] [Table 5B-5]

**Figure 53: Railway Traffic Moving Under Incentive**




As a result, the proportion of railway traffic moving in multiple-car blocks climbed quite rapidly. By the close of the 2009-10 crop year, 79.3% of the regulated grain moving to the four ports in western Canada was earning a discount, against 50.4% in the GMP's base year. The value of these discounts – estimated as the grain shippers' gross savings in railway freight – more than quadrupled during this period, climbing to an estimated $146.4 million from $31.1 million. But this latter expansion was largely the product of a more substantive increase in the per-tonne discounts than it was of the traffic base.

41 The GMP has revised its loaded transit-time calculations in order to better represent the actual variability in each of the underlying origin-destination pairs, or traffic flows. The coefficient of variation effectively removes the distortions that arise from measuring the transit times tied to individual movements in a diverse population set by focusing on the underlying variability in the data distributions tied to each flow. As a ratio, smaller values depict tighter distributions than larger ones. To this end, a lower ratio can be deemed indicative of better consistency around the average loaded transit time presented.

42 CN eliminated its $1.00-per-tonne discount on shipments in blocks of 25-49 railcars at the beginning of the 2003-04 crop year. Although CP reduced its discount to $0.50 per tonne at that time, the carrier only did away with them at the commencement of the 2006-07 crop year.

In much the same way, CP's decision to reduce its per-tonne discount on block movements of 56 to 111 cars from $5.00 to $4.00 towards the close of the 2009-10 crop year did much to temper the growth in the total value of these discounts during the 2010-11 crop year, which fell by 0.7%, to an estimated $145.5 million from $146.4 million. Even so, the average earned discount for the period increased, to an estimated $6.74 per tonne from $6.65 per tonne a year earlier. [Table 5B-6]

## Traffic Density

Another indicator of railway efficiency is traffic density. With a quarterly average of 379.9 originated tonnes per route-mile, overall density in the 2010-11 crop year was 2.1% less than the 387.9 tonnes per route-mile observed a year earlier.[43] Despite the downturn, this average ranked as the second highest under the GMP. Although much of the gain exhibited over the last twelve years stems from the diminishing span of the GHTS's railway infrastructure, it has also been sustained by the movement of generally larger grain volumes.

Moreover, given comparatively small changes in the railway network, this indicator can show a high degree of sensitivity to variations in traffic volume. For example, a 12.2% decrease in the tonnage originated by the grain-dependent network in the 2010-11 crop year resulted in a 12.1% decline in traffic density, which fell to an average of 534.8 tonnes per route-mile from 608.5 tonnes per route-mile a year earlier. At the same time, a 2.0% increase in the amount of grain shipped from the non-grain-dependent network yielded a 2.5% gain in its traffic density, which rose to an average of 340.9 tonnes per route-mile from 332.5 tonnes per route-mile. [Table 5B-7]

43 Traffic density is determined by relating grain volumes for a specific period of time to the number of route-miles comprised within the western Canadian railway network at the end of that same period. Although year-over-year measurements are comparable, they cannot be directly gauged against quarterly measurements. For this reason, an average of the year's quarterly values is used as a substitute.

**Figure 54: Composition of Multiple-Car-Block Movements**

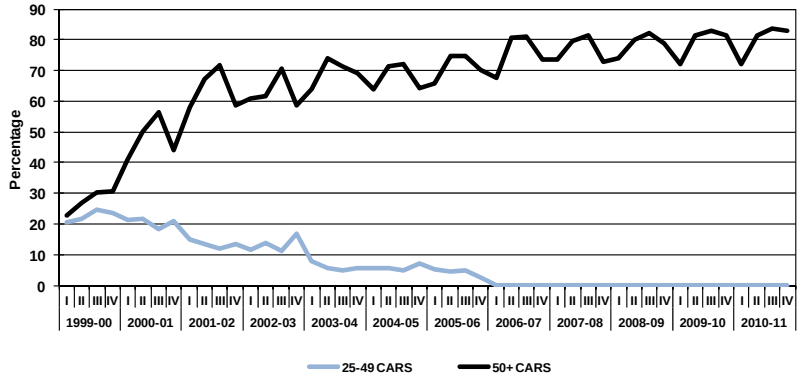
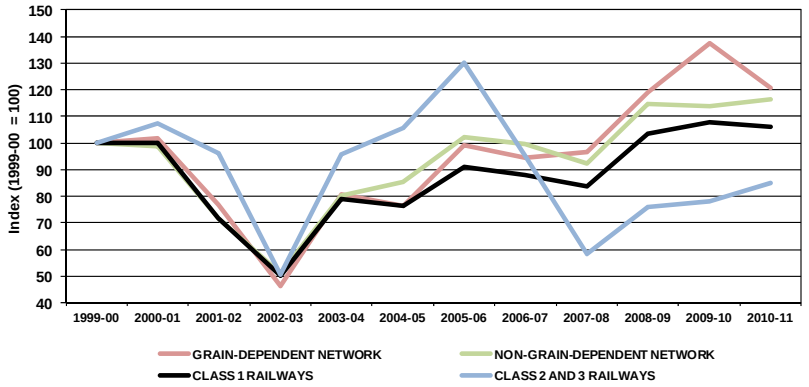



**Figure 55: Change in Railway Traffic Density**



Similar volatility can be seen when comparing the change in density for Class 1 and non-Class-1 carriers, with the latter being far more sensitive to changes in both volume and infrastructure. Comparatively modest declines in both volume and infrastructure resulted in the traffic density for the Class 1 carriers falling by 1.8%, to an average of 428.6 tonnes per route-mile from 436.2 tonnes per route-mile a year earlier. Owing in large measure to the volume gain brought on by the creation of the Stewart Southern Railway, the traffic density associated with non-Class-1 carriers rose by 9.1%, to an average of 92.1 tonnes per route-mile from 84.5 tonnes per route-mile.

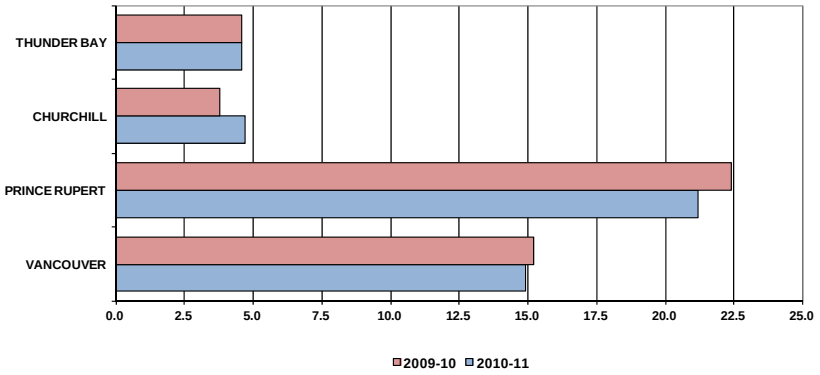
## TERMINAL ELEVATOR OPERATIONS

Owing to a 1.3% decrease in the volume passing through the ports in the 2010-11 crop year, the terminal elevator system's capacity-turnover ratio declined by 1.0%, to 9.9 turns from the record-setting 10.0 turns reached a year earlier.[44] Even so, there were significant shifts in the turnover ratios of the constituent ports, which reflected their own changes in throughput. Churchill proved to be the only port in western Canada to report an increase, with its ratio climbing by 23.7%, to 4.7 turns from 3.8 turns the year before. Thunder Bay's ratio remained unchanged at 4.6 turns. The west coast ports of Vancouver and Prince Rupert both reported modest reductions, with Vancouver's falling by 2.0%, to 14.9 turns from 15.2 turns, and Prince Rupert's declining by 3.6%, to 21.6 turns from 22.4 turns. [Table 5C-1]

### Terminal Elevator Inventories

Over much of the GMP, the amount of grain held in inventory at terminal elevators had a fairly consistent relationship with the system's overall handlings, generally amounting to about 25% of quarterly throughput. In more recent years, however, this value has moved progressively lower,

**Figure 56: Average Terminal Elevator Capacity Turnover**




reaching to less than 20%. Building on this trend, terminal-elevator inventories fell by 6.0% in the 2010-11 crop year, to an average of 1.2 million tonnes from 1.3 million tonnes a year earlier. Although all ports reported a reduction in stocks, the more substantive tonnage decreases were at Vancouver and Prince Rupert.

Worthy of particular mention was the drawdown in inventories at Vancouver in the second and third quarters.[45] Much of this appeared to have been occasioned by CP's service problems, which constrained grain shipments into Vancouver and prompted a larger movement to Prince Rupert. This inflated Prince Rupert's stocks substantially, after having been cut by almost a half in the first quarter. Notwithstanding the considerable fluctuations entailed in this, the inventories maintained at both ports fell: by 6.3% in the case of Vancouver, to an average of

44 The capacity turnover ratio of the terminal elevator network is a simple average based on each facility's individual handlings. As such, the measures for Vancouver and Thunder Bay, as well as the GHTS at large, can be skewed by outlying values. The magnitude of the year-over-year change cited here is not tied to a change in throughput alone.

45 Inventories at Vancouver fell to an average of 388,000 tonnes in the second quarter, a value not rivaled since the first quarter of the 2004-05 crop year when an average of 385,300 tonnes was posted.

428,100 tonnes; and by 13.2% at Prince Rupert, to an average of 146,900 tonnes.

Paralleling the decline in west coast inventories were those of Churchill and Thunder Bay. Churchill posted the larger relative reduction, with terminal stocks falling by 14.4% to an average of 39,300 tonnes. Although Thunder Bay lays claim to the most substantive grain inventories maintained in the GHTS, its terminal stocks were reduced by a comparatively modest 3.2%, falling to an average of 583,500 tonnes.

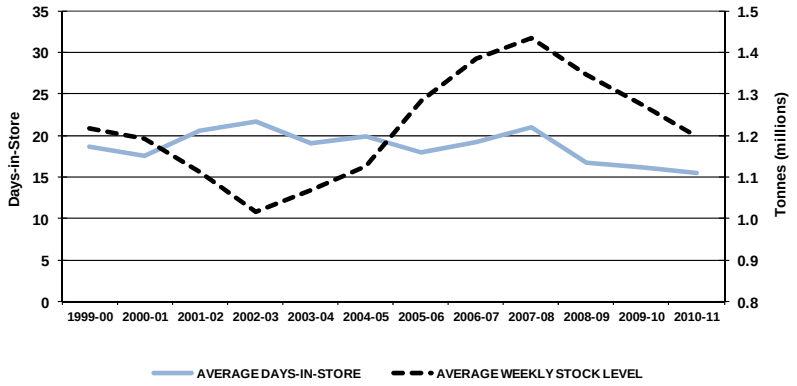
As in past years, wheat stocks again constituted the largest single commodity held in inventory, accounting for nearly half of the average tonnage. However, these stocks also moved noticeably lower, falling by 14.3%, to an average of 540,200 tonnes from 630,700 tonnes a year earlier. This reduction was broadened by a further 63,700 tonnes as a result of lower pea and flaxseed stocks. Although increases were noted for all other grains, the arising incremental gain, which amounted to only 39,700 tonnes, could not offset the wider reductions already cited. [Table 5C-2]

## Days in Store

Reflecting the reduction in terminal stocks, the overall amount of time spent by grain in inventory decreased by 4.3% in the 2010-11 crop year, to an average of 15.5 days from 16.2 days a year earlier. This result was shaped by reductions at the three largest ports in western Canada, but more particularly those on the west coast. Thunder Bay posted the largest relative decline, with the average storage time falling by 9.6%. This was supported by a 4.4% reduction at Prince Rupert, as well as a 3.5% reduction at Vancouver. Running counter to these was Churchill, which posted a modest increase of 2.7%. [Table 5C-3]

Equally reflecting the broader reduction, the majority of grains posted lower storage times, although these varied widely by port. The most significant reductions came from the declines registered by durum,

### Figure 57: Terminal Elevators – Weekly Stock Level and Days-in-Store




### Figure 58: Terminal Elevator Days-in-Store

| | Days in Store | Change | Remarks |
|---|---|---|---|
| Terminal Ports | | | |
| Thunder Bay | 27.3 days | Down 9.6% | Highest average number of days-in-store |
| Prince Rupert | 13.0 days | Down 4.4% | |
| Vancouver | 10.9 days | Down 3.5% | Lowest average number of days-in-store |
| Churchill | 15.2 days | Up 2.7% | |
| Notable Grains | | | |
| Durum | 18.2 days | Down 4.7% | |
| Canola | 8.8 days | Down 3.3% | Lowest average number of days-in-store |
| Barley | 31.0 days | Down 2.8% | |
| Wheat | 17.7 days | Up 1.7% | |
| Flaxseed | 22.1 days | Up 3.8% | |
| Oats | 144.3 days | Up 79.9% | Highest average number of days-in-store |

barley, canola and peas, which fell by 4.7%, 2.8%, 3.3% and 47.5% respectively.

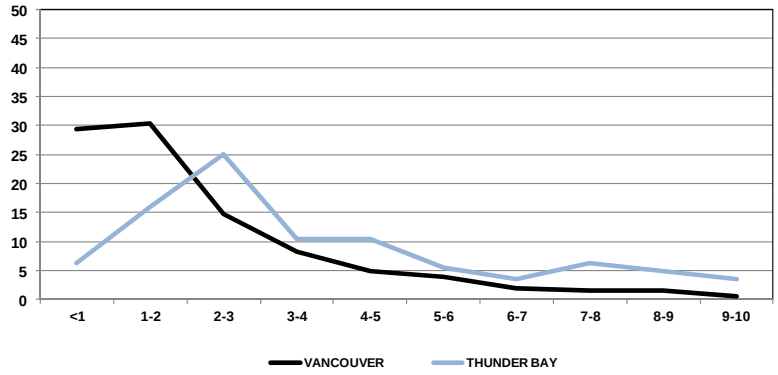
### Stock-to-Shipment Ratios

Whether sufficient stocks were on hand to meet demand can best be gauged by the average weekly stock-to-shipment ratios. This measure provides an indication of how terminal stock levels related to the volume of grain loaded onto ships during the course of any particular week.[46]

For Vancouver, the average ratio on most grains stood comfortably above a value of 2.0. The chief exception to this proved to be canola, with an average ratio of 0.7. Many of the port's primary ratios showed significant year-over-year increases, suggesting that inventories were building in the face of a reduction in shipments. These ranged from a 19.0% increase for wheat to a 90.8% increase for durum. However, these values appear to have been heavily influenced by an unusually sharp rise in the lower-graded, rather than the higher-graded, stocks. A comparable gain was reported at Prince Rupert, with the ratio for wheat increasing by 18.7%, to 2.4 from 2.0. [Table 5C-4]

The ratios posted by Thunder Bay all stood well above the 1.0 threshold, with many showing marked increases. The most substantive of these was a 70.2% gain in the ratio for canola. Nevertheless, the most influential gain was posted by wheat, which saw its ratio rise by a much lesser 8.9%, to 6.1 from 5.6 a year earlier. At Churchill, the ratio for wheat declined by 41.9%, to 1.3 from 2.3, largely as a result of a sharp upturn in throughput.

**Figure 59: Distribution of Weekly Stock-to-Shipment Ratios**




Nominally, these measures suggest that terminal stocks were sufficient to meet the prevailing demand, although they also continued to point to periodic stock shortages. While grade-based stock-to-shipment ratios show a greater degree of variability, they also point to tighter inventories along with the suggestion of more significant shortages, particularly at the west coast ports. [Table 5C-5]

When examining the frequency with which weekly stock-to-shipment ratios fell below a value of 1.0, the ports of Vancouver and Thunder Bay can both be seen to have had more such instances in the 2010-11 crop year.[47] In the case of Vancouver this happened about 29.4% of the time, up from the 23.6% occurrence rate posted a year earlier. At Thunder Bay such incidences proved rarer, although the occurrence rate rose to 6.3% from 3.3% a year earlier.

46 As a multiple of the volume of grain ultimately shipped in a given week, the stock-to-shipment ratio provides an objective measurement of whether or not sufficient terminal stocks were on hand to meet short-term demand. Ratio values of one or more denote a sufficient amount of stock on hand. By way of example, a ratio of 2.5 would indicate that two-and-a-half times the volume of grain ultimately shipped in a given week had been held in inventory at the beginning of that same week.

47 A stock-to-shipment ratio of less than 1.0 does not mean that the port's terminal elevators were unable to meet vessel demand. Rather, it implies that existing grain inventories were insufficient, and that the shortfall would have to be covered using future railway deliveries.

## PORT OPERATIONS

A total of 770 vessels called for grain at western Canadian ports during the 2010-11 crop year. This represented a 6.4% decrease from the 823 ships that arrived for loading a year earlier. A large part of this net reduction was driven by a 13.7% decline in the number of vessels calling at Vancouver, which fell to 384 from 445. It should also be noted, however, that much of this reduction was derived from the loading of comparatively larger vessels. To be sure, Vancouver saw 60.4% of the ships arriving in the port take on loads in excess of 30,000 tonnes, against 48.3% a year earlier.[48]

### Average Vessel Time in Port

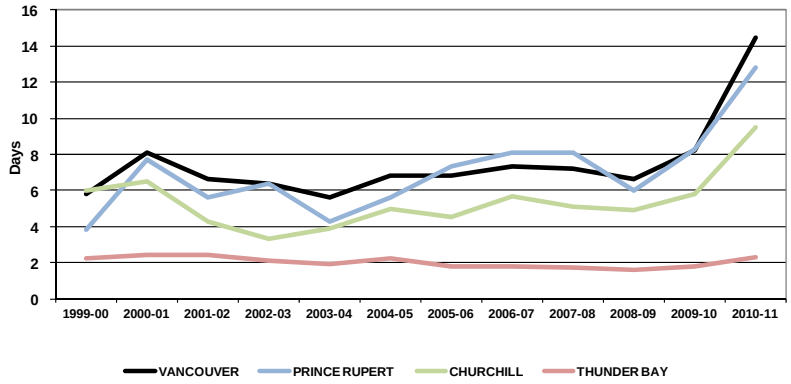
The average amount of time spent by vessels in port increased by 59.7% in the 2010-11 crop year, rising to an average of 9.9 days from 6.2 days a year earlier. This proved to be the highest average of any crop year reported under the GMP. Moreover, this result built on the record highs that were reached in each quarter. As discussed earlier, much of this increase was attributable to the ship delays occasioned by the deterioration in CP's service.

Still, the final result was shaped by increases in both the amount of time vessels spent waiting to load, as well as in loading. Vessels spent an average of 5.4 days waiting to load, up 80.0% from the 3.0-day average recorded a year earlier. The time spent loading increased 40.6%, rising to an average of 4.5 days from 3.2 days a year earlier.[49]

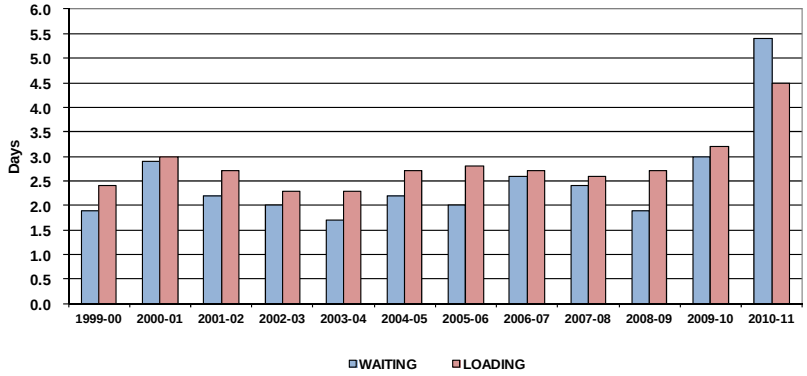
48 Comparatively, the proportion of larger vessels arriving in Vancouver has generally been significantly smaller than that of Prince Rupert, where 79.4% of the ships took on loads in excess of 30,000 tonnes in the 2010-11 crop year.

49 The number of days a vessel spent waiting is determined using the difference between the time the vessel passed the inspection of the Port Warden and Canadian Food Inspection Agency, and the time at which actual loading was commenced.

### Figure 60: Average Vessel Time in Port




### Figure 61: Average Vessel Waiting and Loading Times



All ports reported significantly longer stays in the 2010-11 crop year. Vancouver reported the longest overall stay in port, with its average climbing by 76.8%, to 14.5 days from 8.2 days. This was followed by Prince Rupert, which posted a 54.2% increase that raised its average to 12.8 days from 8.3 days the year before.

Equally substantive increases were recorded for the eastern gateways. The largest of these was posted by Churchill, where the average stay rose by 63.8%, to a record-setting 9.5 days from 5.8 days a year earlier. Thunder Bay reported a 27.8% increase in its average, which rose to 2.3 days from 1.8 days. Despite this, Thunder Bay continued to post the lowest average times in port.[50] [Table 5D-1]

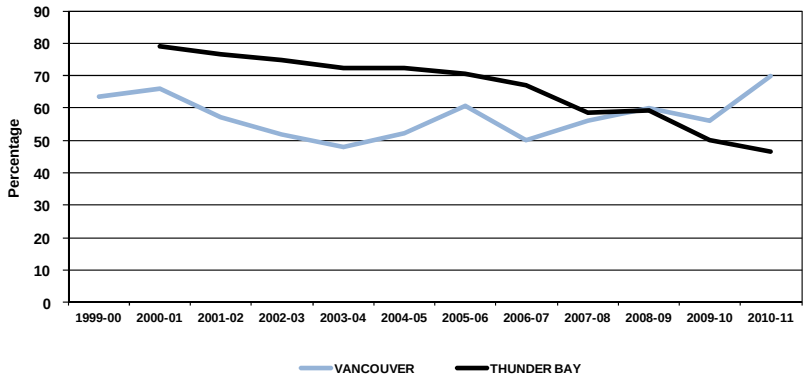
## Distribution of Vessel Time in Port

Despite the increased averages noted above, the proportion of ships spending more than five days in port actually fell, to 45.5% from 50.2% a year earlier. Even so, there was a significant shift in the number of ships that remained in port for an uncommonly lengthy period of time. Indicative of this was the proportion of vessels that spent 16 or more days in port, which ballooned almost fourfold, to 24.2% from 6.1% a year earlier.

Once again, the preponderance of these stays – some 146 out of 186 – was attributable to vessels loading at Vancouver. The data suggests that these longer stays were the result of the growing delays incurred in getting grain into export position, and that the deterioration in CP's service through much of the first nine months of the crop year was the underlying factor. The impact of this was widespread, and affected vessels that were awaiting the arrival of CWB as well as non-CWB grains. [Table 5D-2]

50 Thunder Bay's lower averages stem chiefly from the greater regularity with which vessels move through the St. Lawrence Seaway, the port's ample storage capacity, and the limited delays incurred by vessels waiting to berth.

**Figure 62: Multiple Berthing Vessels**




## Distribution of Berths per Vessel

There was a substantive shift in the number of vessels needing to berth at more than one terminal during the 2010-11 crop year. Again, this primarily related to activity in Vancouver, where the proportion of vessels needing to berth two or more times increased to 69.8% from 56.2% a year earlier. It is worth noting that this marked one of the few instances where the proportion rose above the base-year observation of 63.4%. Once more, the underlying force here were the railway-based problems entailed in getting grain into export position, and which often would not permit a vessel to take on its full load in one berthing.

In comparison, the proportion of vessels needing more than one berthing at Thunder Bay actually fell to 46.4% from 50.0% a year earlier. This proved to be well below the 79.2% level benchmarked in the first year of the GMP. [Table 5D-3]

## Demurrage and Dispatch

Members of the WGEA and the CWB reported total vessel demurrage costs and dispatch earnings to the Monitor.[51] This is intended to provide some indication of the effectiveness with which grain flowed through western Canadian ports. For just the second time since the beginning of the GMP, these two elements combined to produce a negative value, and a loss of $40.6 million against a surplus of $6.0 million a year earlier.

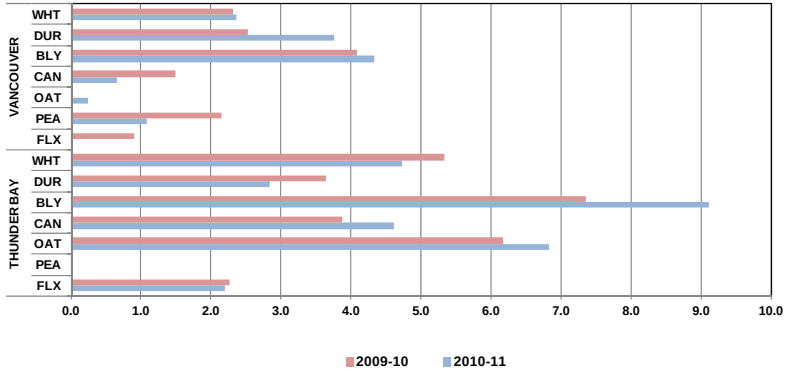
This result was primarily shaped by a four-fold increase in demurrage costs, which rose to $50.1 million from $11.2 million the year previous. The most significant monetary contribution in this was a tripling in the demurrage costs along the Pacific Seaboard, which rose to $29.1 million from $9.4 million a year earlier. However, this was complemented by a comparatively larger increase in the demurrage costs incurred at Churchill, Thunder Bay, and points along the St. Lawrence Seaway, which increased twelve-fold, to $20.9 million from $1.7 million.

Adding to these losses was the impact of a 44.9% decrease in dispatch earnings, which fell to $9.4 million from $17.2 million the year before. Much of the reduction could be traced to a 45.8% decrease in the dispatch earned along the Pacific Seaboard, which fell to $6.3 million from $11.6 million. However, this was also complemented by a 43.1% decrease in the dispatch earnings for Churchill, Thunder Bay, and the St. Lawrence Seaway, which fell to $3.2 million from $5.6 million a year earlier. [Table 5D-4]

On the whole, the dramatic shift in demurrage costs as well as dispatch earnings affirms the problems previously discussed with respect to the number of vessels delayed in port.

51 Note should be made of the fact that data relating to vessel demurrage and dispatch is both un-audited and aggregated. In addition, they pertain to shipments made during the crop year and, as such, may vary from the figures presented in the financial statements of the organizations that provided the data.

### Figure 63: Stock-to-Vessel Requirements Ratio




## Stock-to-Vessel-Requirements Ratio

Average weekly stock-to-vessel requirement ratios are calculated for major grains at Vancouver and Thunder Bay using weekly reports of the tonnage held in inventory at terminal elevators, and the coming weeks' forecast of vessel arrivals. By comparing terminal stocks-in-store to the demand requirements of vessels scheduled to arrive, short-term supply can be gauged against short-term demand.

There were a number of noteworthy shifts in the average weekly stock-to-vessel-requirement ratios for grains held in inventory at the port of Vancouver in the 2010-11 crop year. In the case of the CWB grains, all of the associated ratios increased. These ranged from a 2.4% gain for wheat, which saw its ratio rise to 2.4 from 2.3 a year earlier, to a more substantive 48.7% increase for durum, with its ratio climbing to 3.8 from 2.5. The changes reported among the non-CWB grains were decidedly more negative, with the ratios for peas falling by 49.6%, to 1.1 from 2.2, while that of canola declined by 56.8%, to 0.7 from 1.5. With the

exception of canola, these ratios all stood comfortably above the 1.0 threshold.

The ratios for Thunder Bay moved largely in opposition to those of Vancouver while remaining well above the 1.0 threshold. Reductions were concentrated among the CWB grains, with the steepest being accorded to durum, which fell by 22.1%, to 2.8 from 3.7 a year earlier. This was followed by an 11.5% decrease in the ratio for wheat, which fell to an average of 4.7 from 5.3. Barley proved to be the only gainer, with its ratio rising by 23.9%, to 9.1 from 7.4. Increases were also noted for the majority of non-CWB grains, with the ratios posted by oats rising by 10.8%, to 6.8 from 6.2, and canola by 18.9%, to 4.6 from 3.9. [Table 5D-5]

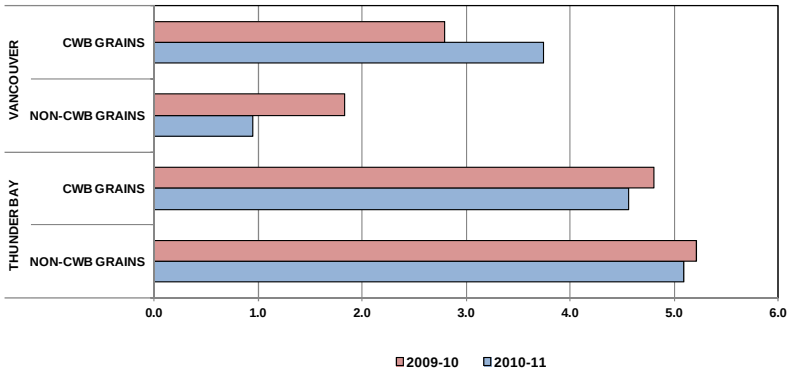
Average weekly stock-to-vessel-requirement ratios by grade were calculated using a similar methodology. The variability in these weekly ratios is even more extreme and largely distorted by blending, as is necessary for the shipment of "Western Canada Wheat." Even so, comparatively few of the grade-specific averages fell below a value of 1.0. [Table 5D-6]

## Stock-to-Shipment Ratio

A related measure involves the calculation of average weekly stock-to-shipment ratios for both CWB and non-CWB grains. This measure provides an indication of how terminal stocks-in-store related to the volume of grain actually loaded – as opposed to that expected to be loaded – onto vessels during the course of any particular week, and is interpreted in the same way as stock-to-vessel requirement ratios.

For the purposes of segmentation, average weekly stock-to-shipment ratios for wheat, durum, and barley are deemed to depict those of CWB grains, although it is acknowledged that a small portion of wheat and barley stocks – as well as shipments – at Thunder Bay are in fact non-CWB feed grains. The ratios for canola, oats and flaxseed are deemed to be representative of the non-CWB grains.

**Figure 64: Stock-to-Shipment Ratio**




The average stock-to-shipment ratio for CWB grains at Vancouver increased by 33.5% in the 2010-11 crop year, climbing to 3.7 from 2.8 a year earlier. Opposing this was a 47.9% reduction in the ratio for non-CWB grains, which fell to 1.0 from 1.8. At Thunder Bay, both ratios moved marginally lower, with the average ratio for CWB grains decreasing by 5.2%, to 4.6 from 4.8, while the average for non-CWB grains fell by a somewhat lesser 2.4%, to 5.1 from 5.2. For the most part, these average values indicate that sufficient stocks were generally on hand to meet the prevailing short-term demand. However, the data indicates that there were also intermittent shortages. [Table 5D-7]

## Terminal Revenues and CWB Carrying Costs

The GMP includes a provision for an annual reporting of terminal elevator revenues and CWB inventory carrying costs at terminal elevators. The WGEA and its members developed a method of reporting total terminal revenues using a number of key financial measures, and provided data for their terminals at Thunder Bay and Vancouver. The

CWB provided a breakdown of their terminal costs using an aggregate for Pacific Seaboard terminals, in addition to that of Thunder Bay.[52] [Table 5D-8]

Total reported terminal revenues for the 2010-11 crop year increased by 6.9%, rising to $416.2 million from $389.2 million a year earlier. This result was shaped by two inputs: a 7.5% gain at Vancouver, which saw revenues climb to $344.7 million from $320.6 million; and a 4.2% increase at Thunder Bay, where terminal revenues rose to $71.5 million from $68.6 million.

The CWB's carrying costs declined by 0.7% in the 2010-11 crop year, falling to $146.6 million from $147.6 million a year earlier. Reductions were reported for the Pacific Seaboard as well as Thunder Bay. In the case of the former, this amounted to a 0.2% reduction, with carrying costs falling to $114.4 million from $114.7 million the year before. There was a slightly greater drop in the CWB's carrying costs at Thunder Bay, which declined by 2.4%, to $32.2 million from $33.0 million a year earlier.

## SYSTEM PERFORMANCE

The supply chain model provides a useful framework by which to examine the speed with which grain moves through the GHTS. For the 2010-11 crop year, it was observed that this process required an average of 52.3 days; a marginal increase over the 52.2 days recorded a year earlier.

This outcome came despite a steady rise in the quarterly average over the crop year's first nine months, which rose from an average of 54.3 days in the first to 57.1 days in the third. Only a sharp reversal in the fourth quarter, which saw the average fall to 43.6 days, undercut this upward

52 It should be noted that, owing to the differences in accounting practices, it is difficult to make direct comparisons between total terminal revenues and CWB costs. In addition, the terminal revenue and cost data presented here are un-audited.

**Figure 65: Days Spent Moving Through the GHTS Supply Chain**

FARM OPERATIONS

COUNTRY ELEVATOR STORAGE TIME

RAILWAY LOADED TRANSIT TIME

TERMINAL ELEVATOR STORAGE TIME

MARINE OPERATIONS

| | | | | TOTAL | NET CHANGE |
|---|---|---|---|---|---|
| 1999-00 | 41.7 | 7.8 | 18.6 | 68.1 | |
| 2007-08 | 31.1 | 6.3 | 21.0 | 58.4 | |
| 2008-09 | 27.7 | 5.5 | 16.7 | 49.9 | |
| 2009-10 | 30.5 | 5.5 | 16.2 | 52.2 | |
| 2010-11 | 30.8 | 6.0 | 15.5 | 52.3 | -23.2% |

momentum. By the close of the crop year, the overall average had been reshaped, with somewhat more moderate variations in each of the contributing time elements: a 0.3-day increase in the amount of time grain spent in country elevator storage; a 0.5-day increase in the railways' loaded transit time; and a 0.7-day reduction in terminal-elevator storage time. [Table 5E-1]

This marked a 15.8-day reduction from the 68.1-day average given over to grain moving through the GHTS in the GMP's base year. Moreover, the 52.3-day average recorded in the 2010-11 crop year ranks as the third lowest yet observed under the GMP.

The following outlines some of the forces involved in the shaping of this result:

- Firstly, a decline in grain production reduced the amount of grain available for movement in the 2010-11 crop year by 6.7%, to 61.3 million tonnes from 65.7 million tonnes a year earlier. Moreover, the quality of the harvest was sharply reduced, creating significant marketing challenges for the industry at large. While this suggested a possible easing of the pressures that would be brought to bear on the GHTS, the demands actually placed on the system remained comparable to the heightened levels exhibited a year earlier.

- Secondly, many of the problems that undermined the GHTS's performance in the first quarter only grew in the second and third. Although much of this was rooted in the disruptive effects of harsh winter weather on CP's operations through the Rockies, it served only to compound the delays and car-supply problems that had already been plaguing the carrier's customers since the beginning of the crop year. The most visible consequences of this were the growing delays to ships awaiting the arrival of CP grain trains at Vancouver.

- Finally, although a cascading series of events remained at the heart of the supply-chain problems that presented themselves during this period, the vulnerabilities of the GHTS to sustained railway service failures had again become evident. Although grain companies had begun drawing more grain into CN-served elevators in an effort to bypass the operational problems on CP, the limited surge capacity open to them effectively constrained their ability to redirect this traffic in a substantive way.

# Section 6: Producer Impact

| Indicator Description | Table | 1999-00 | 2008-09 | 2009-10 | 2010-11 Q1 | Q2 | Q3 | Q4 | YTD | % VAR |
|---|---|---|---|---|---|---|---|---|---|---|
| **Export Basis** | | | | | | | | | | |
| 1CWRS Wheat ($ per tonne) | 6A-10A | $54.58 | $66.74 | $65.86 | | | | | $73.35 | 11.4% |
| 1CWA Durum ($ per tonne) | 6A-10B | $67.63 | $87.57 | $79.52 | | | | | $89.36 | 12.4% |
| 1 Canada Canola ($ per tonne) | 6A-10C | $52.51 | $48.63 | $49.73 | | | | | $53.14 | 6.9% |
| Canadian Large Yellow Peas – No. 2 or Better ($ per tonne) | 6A-10D | $54.76 | $101.57 | $78.32 | | | | | $84.86 | 8.3% |
| | | | | | | | | | | |
| **Producer Cars** | | | | | | | | | | |
| Producer-Car-Loading Sites (number) – Class 1 Carriers | | 415 | 333 | 268 | 259 | 259 | 259 | 250 | 250 | -6.7% |
| Producer-Car-Loading Sites (number) – Class 2 and 3 Carriers | | 122 | 104 | 110 | 115 | 115 | 115 | 115 | 115 | 4.5% |
| Producer-Car-Loading Sites (number) – All Carriers | | 537 | 437 | 378 | 374 | 374 | 374 | 365 | 365 | -3.4% |
| Producer-Car Shipments (number) – Covered Hopper Cars | 6B-2 | 3,441 | 13,243 | 12,198 | 2,279 | 3,075 | 2,978 | 4,709 | 13,041 | 6.9% |

## CALCULATION OF THE EXPORT BASIS

One of the GMP's principal objectives involves gauging the logistics cost associated with moving prairie grain to market – commonly referred to as the "export basis" – along with the resultant "netback" earned by producers after subtracting these costs from a grain's sale price. By definition, both the export basis and the producer netback are location-specific calculations, and include charges for elevation, elevator cleaning and storage, and transportation (be it road, rail or marine), along with any discounts that may be applicable.

There are well over 1,000 distinct origin-destination pairs that arise from tying together the hundreds of grain-delivery points scattered across the prairies with the four principal export gateways in western Canada. Moreover, given the number of differing grains, grain grades, grain company service charges, and freight rates, the permutations inherent in calculating the export basis and netback of individual producers takes on extraordinary dimensions. Such calculations can easily swell into thousands of separate estimates.

The only practical means by which to manage this undertaking rests in standardizing the estimates around a representative sample of grains, and grain stations. As a result, the GMP consciously limits its estimations to four specific grains: wheat; durum; canola; and peas.[53] Sampling techniques were used to select 43 separate grain stations as a representative sample in the calculation of the export basis and producer netback. These grain stations are grouped into nine geographic areas, comprised of four to six grain stations each, namely: Manitoba East; Manitoba West; Saskatchewan Northeast; Saskatchewan Northwest; Saskatchewan Southeast; Saskatchewan Southwest; Alberta North; Alberta South; and Peace River.

### Components of the Calculation

It is important to remember that every individual producer's cost structure differs. As a result, no general calculation can be expected to precisely depict the export basis and netback that is specific to each farmer. The methodology employed here is intended to typify the general case within each of the nine geographic areas identified.[54] Caution, therefore, must be exercised in any comparison between the general values presented, and those arising to individual producers within each of these areas.

Special consideration is given to the distinct merchandising activities tied to CWB and non-CWB commodities, which compels the use of discrete methodologies in calculating the export basis and producer netback for both. The differences between these two methodologies are delineated in the table that follows. The reader is encouraged to become familiar with this material before attempting to draw any specific conclusions from the ensuing discussion.

53 In addition to the grains themselves, the GMP also specified the grades to be used, namely: 1 CWRS Wheat; 1 CWA Durum; 1 Canada Canola; and Canadian Large Yellow Peas (No. 2 or Better).

54 Owing to competitive pressures, many of the stakeholders in the GHTS use some form of financial incentive to draw grain volumes into their facilities (i.e., country elevators) or over their systems (i.e., railways). Many of these incentives are of a highly sensitive commercial nature. In order to safeguard all such information, estimates of the export basis and producer netback are calculated at a higher-than-grain-station level of aggregation.

| ELEMENT | CWB GRAINS | NON-CWB COMMODITIES |
|---|---|---|
| **Grain Price** | The price for 1 Canada Western Red Spring Wheat and 1 Canada Western Amber Durum are the Final Realized Prices in-store at Vancouver or St. Lawrence as reported by the CWB in the Statistical Tables accompanying its Annual Report. Since Final Realized Prices are expressed net of CWB operating costs, and the Export Basis includes a separate provision for these costs, CWB Costs (net) are added back to produce Adjusted CWB Final Prices. | The price for 1 Canada Canola is the weighted average Vancouver cash price.[1] The weights used reflect monthly exports as recorded by the Canadian Grain Commission (CGC). The price for Canadian Large Yellow Peas is based on the average weekly dealer closing price, track Vancouver, reported by Stat Publishing for the months of October and November.[2] |
| **Weighted Applicable Freight** | The farmer incurs a charge for the movement of his grain as it is delivered to a local elevator. This per-tonne deduction is set by the CWB but based primarily on the single-car rates as published by the railways. This freight deduction embodies the less costly of two options: that to Vancouver; or that to Thunder Bay plus the Freight Adjustment Factor (FAF).[3] The applicable freight rate depicted is a weighted average for the area as a whole based on the proportion of deliveries made to each of the stations included in the area. | |
| **Churchill Freight Advantage Rebate and Churchill Storage Program** | The Churchill Freight Advantage Rebate (CFAR) was introduced in the 2000-01 crop year as a mechanism to return the market sustainable freight advantage to farmers in the Churchill catchment area. Following the 2007-08 crop year, the CFAR was replaced with the Churchill Storage Program (CSP). The CSP is designed to pay producers to store grain so as to ensure that it is accessible during the Churchill shipping season (typically August through October). The 2008-09 crop year was a transitional year, with no payments having been made under the CSP. Since the data needed to calculate the CSP on a per-tonne basis is no longer available, it has ceased to be factored into the export basis. | |
| **Trucking Costs** | The trucking costs are based on the commercial short-haul trucking rates for an average haul of 40 miles as presented in Table 4A-1. | The trucking costs are based on the commercial short-haul trucking rates for an average haul of 40 miles as presented in Table 4A-1. |
| **Primary Elevation Costs** | Primary elevator licensees are required to post primary elevation tariffs with the CGC at the beginning of each crop year, and at any time the rates for elevation, dockage (cleaning), storage, and related services change. The costs depicted for primary elevation are based on the applicable provincial average presented in Table 4B-1 as at August 1 of each crop year. | |
| **Dockage Costs** | Primary elevator licensees are required to post primary elevation tariffs with the CGC at the beginning of each crop year, and at any time the rates for elevation, dockage (cleaning), storage, and related services change. The costs depicted for dockage are based on the applicable provincial average presented in Table 4B-1 as at August 1 of each crop year. | |
| **CGC Weighing and Inspection Costs** | The costs of CGC weighing and inspection are assessed in various ways by the individual grain companies. Some include a provision for this in their primary elevation tariffs. Others deduct this amount directly from their cash tickets. The per-tonne average deduction from cash tickets used here has been adjusted in order to avoid an overlap with the tonnage already covered under the primary elevation tariffs, and a possible distortion of the export basis. | |
| **CWB Costs** | CWB Costs (gross) represent the per-tonne operating costs of each pool account at an in-store export port position, plus the apportioned value of its overall transportation savings.[4] | |
| **Price Differential** | | For 1 Canada Canola, a price differential – or spread – is calculated between the weighted Vancouver cash price and the weighted average spot price in each of the nine regions. For yellow peas, a price differential is calculated using the average weekly dealer closing price, track Vancouver, and the average weekly grower bid closing price for the months of October and November. These differentials effectively represent the incorporated per-tonne cost of freight, elevation, storage and any other ancillary elements. As such, it encompasses a large portion of the Export Basis. |

| ELEMENT | CWB GRAINS | NON-CWB COMMODITIES |
|---|---|---|
| **Canola Growers and Pulse Associations** | | All elevator deliveries of canola in Saskatchewan are subject to a $0.75 per tonne "check-off" for provincial canola association dues. The applicable "check-off" on deliveries made in Manitoba and Alberta are somewhat higher, amounting to $1.00 per tonne in both provinces. Similarly, a levy of 0.5% is deducted for the Manitoba Pulse Growers Association on the delivery of yellow peas, while 1.0% is deducted for the Pulse Growers Associations in Saskatchewan and Alberta. |
| **Trucking Premiums** | Grain companies report on the trucking premiums they pay to producers at each of the facilities identified in the sampling methodology.[5] The amounts depicted reflects the average per-tonne value of all premiums paid for the designated grade of wheat or durum within the reporting area. | Grain companies use their basis (the spread between their cash and the nearby futures price) as the mechanism to attract producer deliveries. Narrowing their basis, resulting in higher return to producers, is the signal that a company needs a commodity. Conversely a wide basis signals a lack of demand for the product. Some companies, however, offer premiums over and above their basis in order to attract delivery of some non-Board commodities. These premiums are presented as a producer benefit when factored into the export basis. Owing to the limited use of this mechanism, they assume relatively small values when weighted by the applicable tonnage at a regional level. |
| **CWB Transportation Savings** | The CWB Transportation Savings is an apportioned per-tonne amount representing the total financial returns to the pool accounts as a result of grain-company tendering, freight and terminal rebates, and any penalties for non-performance. | |
| **Other Deductions** | Other deductions, such as drying charges, GST on services, etc., may also be applied to, and appear as an itemized entry on the cash ticket of, any grain delivery. No attempt is made to capture these deductions within the framework employed here. | Other deductions, such as drying charges, GST on services, etc., may also be applied to, and appear as an itemized entry on the cash ticket of, any grain delivery. No attempt is made to capture these deductions within the framework employed here. |

1) – ICE Futures Canada (formerly the Winnipeg Commodity Exchange) collects Vancouver cash prices and spot prices at selected country elevator locations daily.
2) – Data provided by Stat Publishing. Using a "snapshot" period of two months during the fall, when pricing of the new crop is relatively heavy, was deemed to be an appropriate representation of producer prices, thereby avoiding the need to incorporate a weighting factor.
3) – Freight Adjustment Factors (FAF) were introduced in the 1995-96 crop year to account for a change in the eastern pooling basis point, from Thunder Bay to the Lower St. Lawrence, and for the location advantage of accorded shipments from delivery points near Churchill and markets in the United States. FAFs are established prior to the beginning of each crop year to reflect changes in sales opportunities, cropping patterns and Seaway freight rates.
4) – The costs published in the CWB's Annual Report are net of any transportation savings. Since the 2002-03 crop year, the CWB's Annual Reports has published its receipts at "contract prices." In order to provide a consistent time series, the CWB provides the Monitor with an adjusted reporting to reflect receipts and costs at "in-store" Vancouver or St. Lawrence.
5) – Various terms are used by grain companies to describe the premiums they offer to producers in an effort to attract deliveries to their facilities – i.e., trucking premiums, marketing premiums, and location premiums. The most common term, however, remains "trucking premium," and it is utilized generically in the calculation of the Export Basis.

## CWB COMMODITIES

All of the data assembled since the beginning of the GMP has consistently shown that the financial returns arising to producers have been heavily influenced by the prevailing price of grain. While the export basis has unquestionably risen over time, it is the prevailing price of the commodity that has had the most sway over these returns.

### 1CWRS Wheat

Between the 1999-2000 and 2010-11 crop years, the producer's netback for 1CWRS wheat virtually doubled, climbing to an average of $286.23 per tonne from $143.25 per tonne. However, this gain has not been altogether progressive. Rather, the farmer's return has varied widely in the face of dramatic price swings, extending from a low of $141.17 per tonne in the 2005-06 crop year to a high of $314.29 per tonne in the 2007-08 crop year. [Table 6A-10A

### Final Realized Price

Better prices proved to be the chief force underlying improvements in the netback to producers of 1CWRS wheat throughout much of the GMP. From the 1999-2000 crop year's benchmark price of $192.43 per tonne, shrinking global wheat stocks and the prospect of tighter supplies helped push the Final Price for 1CWRS wheat (13.5% protein) steadily higher, with the price cresting at $250.20 per tonne in the 2002-03 crop year. And although prices tumbled over the course of the next three years, they began to rally again in the 2006-07 crop year as a result of reduced global production. Production shortfalls in the United States, Europe and Australia helped push prices even higher in the 2007-08 crop year, with the Final Price for 1CWRS wheat reaching a record $372.06 per tonne.

But record global wheat production along with increased international competition resulted in significant downward pressure being placed on wheat prices in the 2008-09 crop year. Moreover, the instability occasioned by the global financial crisis served only to compound these

**Figure 66: Producer Netback – 1CWRS Wheat**

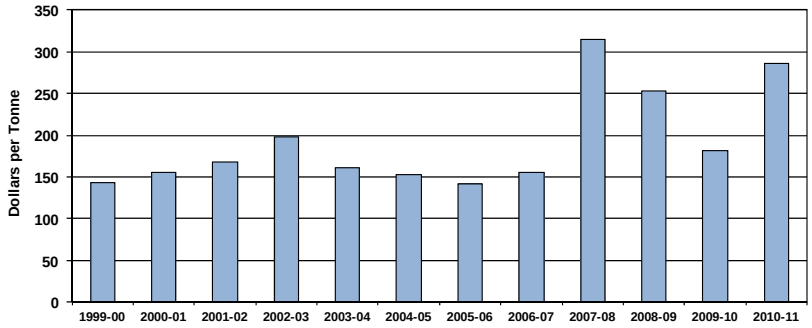
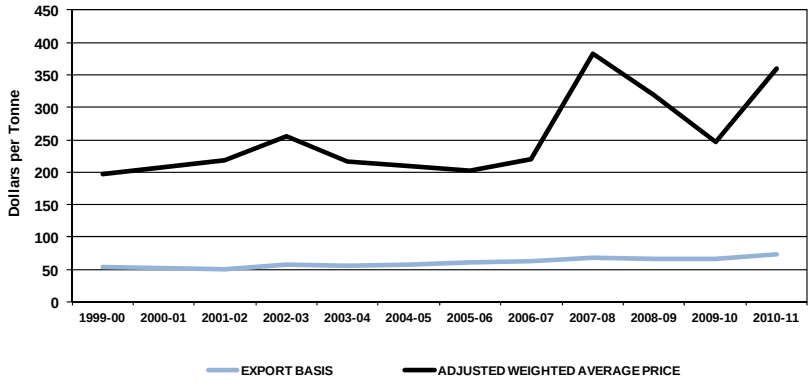



**Figure 67: Change in Netback Components – 1CWRS Wheat**



pressures. Over the course of the next two crop years, the Final Price for 1CWRS wheat had moved steadily lower, ultimately falling to $236.80 per tonne with the close of the 2009-10 crop year.

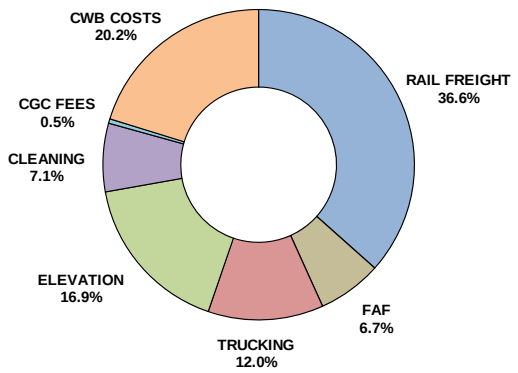
However, the expectation of tighter global wheat supplies in the face of a severe drought in Russia and other Black-Sea exporters helped bolster prices dramatically in the 2010-11 crop year. Moreover, this pressure only increased when Russia moved to temporarily ban all grain exports in August 2010. Poor growing conditions in other parts of the world also figured into this, with flooding and excessive moisture undermining grain production in China as well as North America. As a result, the Final Price of 1 CWRS wheat rose by 45.7% in the 2010-11 crop year, to $344.96 per tonne, and to within striking distance of its previous GMP high. This represented a 79.3% gain over the base-year's benchmark value of $192.43 per tonne.

## Export Basis

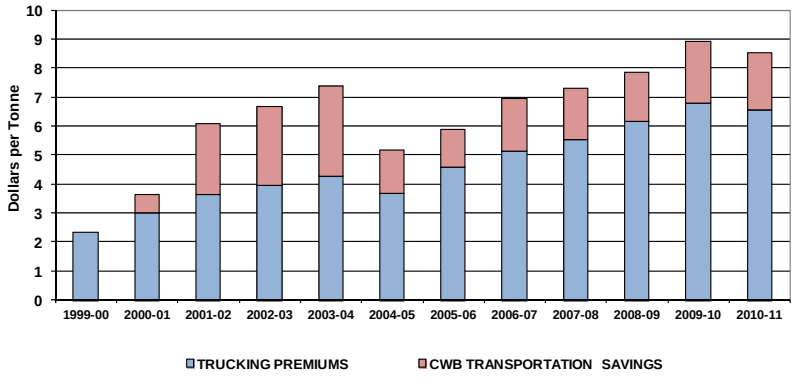
Against the backdrop of rising prices has been the increase in the export basis for 1 CWRS wheat itself, although its climb has proved far less erratic. To be sure, the export basis actually declined in the early years of the GMP, falling to a low of $50.88 per tonne in the 2001-02 crop year. But it subsequently began to increase, attaining a height of $67.65 per tonne in the 2007-08 crop year. This was followed by modest reductions in each of the next two crop years, with the export basis cut back to $65.86 per tonne at the close of the 2009-10 crop year. This downward drift came to an end in the 2010-11 crop year, with the posting of an 11.4% increase, and the raising of the export basis to a GMP record of $73.35 per tonne. This constituted a net increase of 34.4% above the $54.58-per-tonne value benchmarked twelve years earlier.

It is important to recognize that the export basis has two distinct structural components. The first of these relates to the direct costs incurred by producers in delivering grain to market. These include not only railway freight, but the costs derived from trucking, elevation, dockage, CGC weighing and inspection, as well as the Canadian Wheat

### Figure 68: Direct Costs – 1CWRS Wheat




### Figure 69: Financial Benefits – 1CWRS Wheat



Board. The second encompasses all of the financial benefits accruing to producers from the receipt of any offset to these expenses. For the most part, these encompass two items: the trucking premiums farmers receive from the grain companies for delivering their grain; and the transportation savings passed on to them by the CWB through its pool accounts. It must be noted that these offsets have played a central role in containing the growth in the farmer's direct costs.

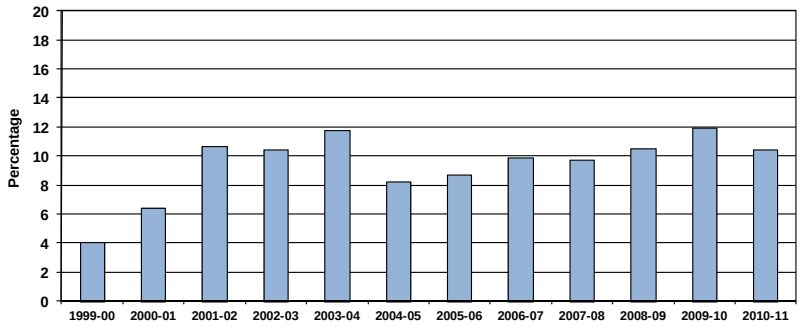
## Direct Costs

Over the course of the last twelve crop years, the direct-cost component of the export basis has risen 43.9%, to an average of $81.86 per tonne in the 2010-11 crop year from its base-year value of $56.90 per tonne. The largest single element in these costs is the applicable freight, which incorporates not only a charge for the grain's movement by rail, but a CWB Freight Adjustment Factor (FAF) as well.[55] At the outset of the GMP, the weighted applicable freight on the movement of 1CWRS wheat in western Canada averaged $31.87 per tonne, and accounted for 56.0% of the farmer's direct costs. And while these costs have risen by 11.1% over the last twelve years, to an average of $35.41 in the 2010-11 crop year, its share of the farmer's direct costs declined to a markedly lower 43.3%.

This comparative decline reflects the effects of greater increases in the other direct costs associated with handling 1CWRS wheat. To be sure, the cost of trucking, elevation and cleaning have all seen increases ranging anywhere from 45% to 65% over this same period. Still, the most substantive has been the rise in CWB's gross costs, which more than tripled, to an average $16.56 per tonne from $5.40 per tonne in the GMP's base year. Moreover, these outlays assumed a much larger share of direct costs; 20.2% in the 2010-11 crop year against 9.5% twelve years earlier.

55 Prior to the 2008-09 crop year, the Churchill Freight Advantage Rebate (CFAR) was incorporated into the calculation of the applicable freight. When the Churchill Storage Program superseded the CFAR, the data needed to reduce these payments to a per-tonne value was no longer available. As a result, this element is no longer factored into the calculation of the export basis.

**Figure 70: Offset Value of Financial Benefits – 1CWRS Wheat**




## Financial Benefits

The direct costs cited above are typically offset by two financial benefits that accrue to producers. These come in the form of any trucking premiums that may have been received directly from grain companies, as well as the transportation savings they indirectly received from the CWB.[56] In the case of trucking premiums, it has been a long-established practice of the grain companies' to use these as an instrument with which to draw grain into their facilities. To be sure, data gathered under the GMP suggests that these premiums have largely risen as a result of the increased competition between grain companies.

56 There are a number of other enticements that a grain company can use in getting farmers to deliver their grain to its elevators - what the grain company refers to as its toolbox. In addition to trucking premiums, grade promotions, discounts on farm supplies, favourable credit terms, or even the absorption of trucking costs are also employed. The GMP does not attempt to evaluate these other benefits.

For the most part, the premiums paid by the grain companies for the delivery of 1CWRS wheat in each of the nine sampling areas have almost tripled over the course of the last twelve years, increasing to an average of $6.57 per tonne in the 2010-11 crop year from $2.32 per tonne in the 1999-2000 crop year. As a result, these premiums have come to offset a larger portion of the producer's direct costs: 8.0% in the 2010-11 crop year versus 4.1% in the 1999-2000 crop year.

Complementing this has been the CWB's transportation savings, which initially averaged $0.61 per tonne in the 2000-01 crop year. Gauged against the direct costs tied to 1CWRS wheat, this constituted a further 1.1% in offset value. Although these savings reached as much as $3.14 per tonne in the 2003-04 crop year, they have since diminished. In the 2010-11 crop year they equated to $1.94 per tonne, and provided a 2.4% offset to direct costs.

In combination, the financial benefit accruing to producers from these two sources averaged $8.51 per tonne in the 2010-11 crop year, more than three times the $2.32 per tonne recorded in the first year of the GMP. What is more, the offsetting value of these financial benefits has increased to 10.4% of the producer's direct costs, more than twice the 4.1% they accorded twelve years earlier.

### 1CWA Durum

As was the case for 1CWRS wheat, farmers have generally benefited from an improvement in the netback for their delivery of 1CWA durum. These returns, however, were also heavily influenced by the fluctuations in market price. This was particularly evident in the 2007-08 crop year when the producer's netback spiked 163.0%, to post a GMP record of $458.04 per tonne. However, the ensuing price decline resulted in an even larger monetary contraction over the course of the next two crop years. By the close of the 2009-10 crop year the producer's netback had fallen to $153.59 per tonne, marginally below the $160.48 per tonne that had been benchmarked at the beginning of the GMP. Still, substantially stronger prices in the 2010-11 crop year helped regain some of this lost

**Figure 71: Producer Netback – 1CWA Durum**

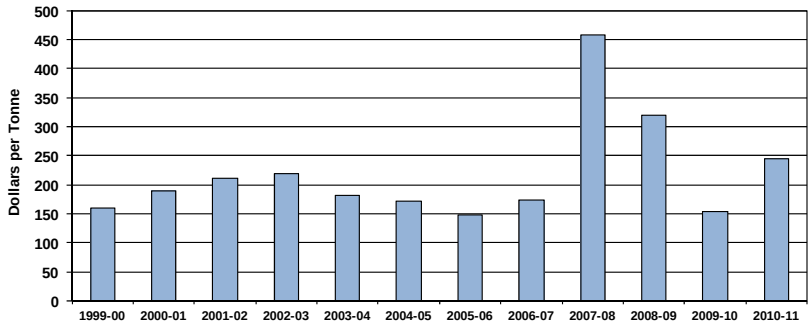
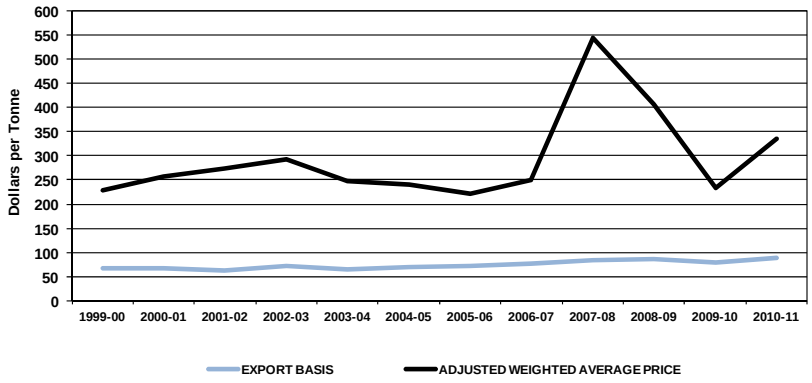



**Figure 72: Change in Netback Components – 1CWA Durum**



ground, with the producer's netback rising to $245.55 per tonne; the third highest value recorded under the GMP. [Table 6A-10B]

### Final Realized Price

Limited supplies of high-grade milling durum in the face of reduced North American production was largely responsible for pushing the Final Price of 1CWA durum (13.5% protein) steadily upwards from its benchmark value of $206.79 per tonne in the 1999-2000 crop year. After reaching a height of $266.88 per tonne in the 2002-03 crop year, however, durum prices began to fall. Prices continued to weaken over the course of the next two years, ultimately falling to $199.35 per tonne in the 2005-06 crop year. A tightening of supplies caused prices to rally a year later but it was the ensuing global shortage that propelled the Final Price for 1CWA durum to a GMP record of $512.81 per tonne in the 2007-08 crop year.

A large, good-quality European harvest, complemented by increased North American production, brought downward pressure on prices in the 2008-09 crop year. Compounding this was the instability occasioned by the global financial crisis. Much the same forces were still at work a year later, which resulted in an even further weakening in price. By the close of the 2009-10 crop year, the Final Price of 1CWA durum had plummeted to $209.16 per tonne, a drop of 59.2% from its prerecession high.

In the face of reduced global production and a lower-quality North American crop, durum prices rebounded appreciably in the 2010-11 crop year. To be sure, the Final Price of 1CWA durum rose 46.1%, to $305.58 per tonne. Although this stood well below the record price set three years earlier, it still represented a 47.7% gain over the base-year value of $206.79 per tonne.

### Export Basis

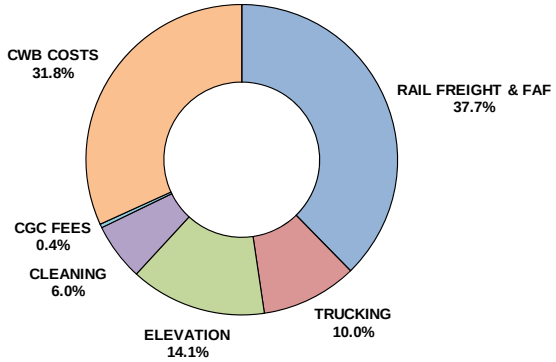
As outlined previously with respect to 1CWRS wheat, the export basis for 1CWA durum has also risen over the course of the GMP, increasing at a rate approaching 3% per year. With the close of the 2010-11 crop year, the export basis on 1CWA durum had risen by a factor of 32.1%, to $89.36 per tonne as compared to $67.63 per tonne in the GMP's base year. This is entirely consistent with the aforementioned 34.4% increase in the export basis of 1CWRS wheat.

As with 1CWRS wheat, the export basis of 1CWA durum has the same two structural components: the direct costs incurred in delivering grain to market; and the financial benefits accruing from the receipt of any offset to these expenses. Although much of the force giving rise to a higher export basis has come from an increase in the underlying direct costs, it must be remembered that the rise in these latter elements have also helped to contain them.

### Direct Costs

Over the course of the last twelve years, the direct costs tied to 1CWA durum have increased by 38.8%, rising to $98.25 per tonne from $70.77

**Figure 73: Direct Costs – 1CWA Durum**



per tonne in the GMP's base year. This proved to be only marginally less than the 43.9% increase cited for 1CWRS wheat. This disparity arises from differences in their respective cost structures, with rail freight and gross CWB costs providing for much of this.

As was the case with wheat, rail freight constitutes the single largest element in the direct costs associated with 1CWA durum, although the FAF has much less influence.[57] For the 2010-11 crop year, the weighted average freight applicable on the movement of durum amounted to $37.03 per tonne, a gain of 23.1% over the $30.07 per tonne reported twelve years earlier. Even so, its share of direct costs fell marginally, to 37.7% from the 42.5% it had assumed in the first year of the GMP. This was in part due to a comparatively greater 46.7% increase in gross CWB costs, which constituted the second largest cost element and rose to $31.27 per tonne from $21.32 per tonne in the same period. This raised its share of direct costs to 31.8% from 30.1%.

The cost of trucking, elevation and cleaning all increased during this same period, with individual rate escalations ranging from about 45% to 65%. With the combined cost of these services rising to $29.95 per tonne from $19.38 per tonne, their share of direct costs rose to 30.5% from 27.4% in the 1999-2000 crop year.

## Financial Benefits

As with wheat, the trucking premiums paid by grain companies for 1CWA durum deliveries have moved steadily higher over the course of the past twelve years, to an average of $6.95 per tonne from $3.14 per tonne. In the 2010-11 crop year this served to offset 7.1% of the direct costs incurred by farmers in exporting their grain, proving somewhat more than the 4.4% that was shielded in the first year of the GMP. The CWB's

57 For 1CWA durum, the FAF constitutes a very small portion of the overall applicable freight; just 1.4% in the 1999-2000 crop year. Moreover, the average FAF for 1CWA durum decreased steadily in the early years of the GMP, falling from $0.41 per tonne in the 1999-2000 crop year, to become a credit of $0.03 in the 2005-06 crop year. When treated as a credit, the FAF actually reduces the freight paid by producers.

Figure 74: Financial Benefits – 1CWA Durum

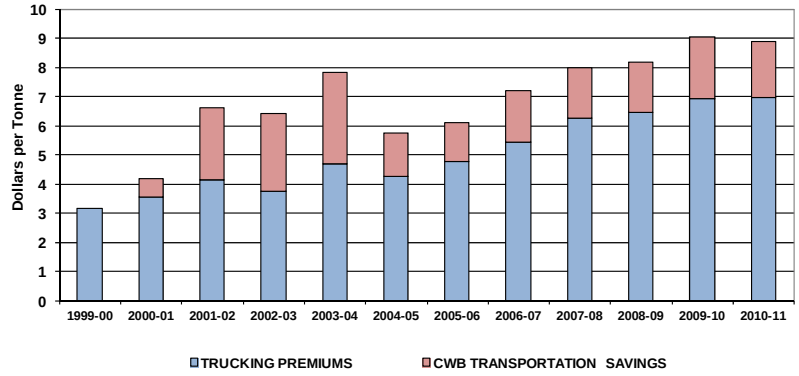
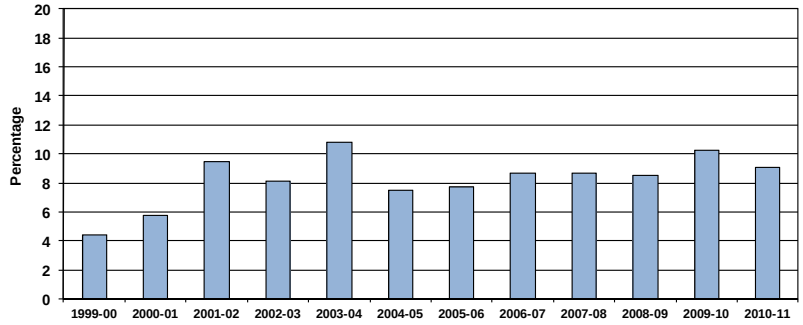



Figure 75: Offset Value of Financial Benefits – 1CWA Durum



transportation savings are also applicable in the movement of 1CWA durum, and are in fact identical to those already presented for 1CWRS wheat. At $1.94 per tonne, this provided an offset value of 2.0% to the farmer's direct costs.

When examined on a combined basis, these producer benefits have almost tripled over the course of the GMP, climbing to $8.89 per tonne from $3.14 per tonne in the base year. By extension, they also offset a larger proportion of the farmer's direct costs, 9.0% against 4.4% in the 1999-2000 crop year.

## NON-CWB COMMODITIES

As with the CWB commodities discussed previously, all of the data assembled since the beginning of the GMP has consistently shown that the financial returns arising to producers of non-CWB commodities have been heavily influenced by the prevailing price of grain. While the export basis has unquestionably risen over time, it is the prevailing price of the commodity that has also had the most sway over these returns.

### 1 Canada Canola

The visible netback to producers from the delivery of 1 Canada canola has fluctuated rather significantly over the course of the last twelve years. Once again, much of this was due to dramatic swings in market prices. These forces propelled the farmer's return from a base-year value of $239.10 per tonne to as much as $503.29 per tonne in the 2007-08 crop year. But a decline in canola prices over the next two years undercut these gains, reducing the farmer's netback to $374.46 per tonne in the 2009-10 crop year. Nevertheless, a subsequent price resurgence propelled the producer's netback to $512.22 per tonne in the 2010-11 crop year, and a new record under the GMP.

**Figure 76: Producer Netback – 1 Canada Canola**

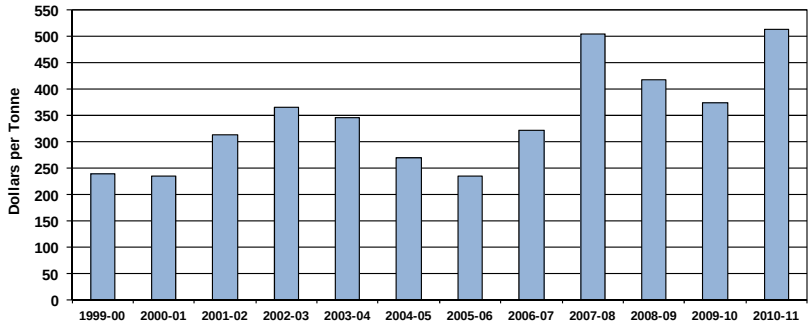
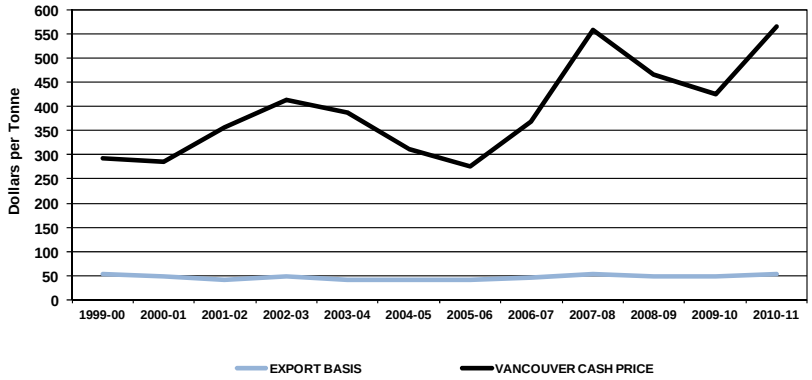



**Figure 77: Change in Netback Components – 1 Canada Canola**



### Vancouver Cash Price

As with other grains, higher market prices have proven to be instrumental in improving the netback to producers of 1 Canada canola. To be sure, price has fluctuated significantly since the beginning of the GMP. From its base-year benchmark of $291.61 per tonne, the Vancouver cash price moved steadily higher in the first four years of the GMP, reaching $414.36 per tonne before gradually settling back to $276.38 per tonne in the 2005-06 crop year. This was followed by a sharp upturn just a year later when the growing need for feedstock in US and European biodiesel production began to lift prices higher. The 2007-08 crop year saw declining oilseed stocks coupled with rising consumption propel canola prices to even further heights, with the average Vancouver cash price reaching $556.76 per tonne.

But record Canadian production along with greater output from Australia, Russia and Ukraine led to expectations of a global oversupply in the 2008-09 crop year. This, along with increased palm oil production from countries like Indonesia, served only to undermine global prices. The instability occasioned by the global financial crisis did little to help matters. Much the same was true for the 2009-10 crop year, with the downward pressure cutting the Vancouver cash price to an average of $424.19 per tonne.

However, the price of canola surged sharply higher in the 2010-11 crop year, fuelled in large measure by a growing export demand as well as that occasioned by the advent of new crushing capacity in western Canada. To be sure, the average Vancouver cash price climbed to $565.36 per tonne, establishing a new high under the GMP in the process.

### Export Basis

Over the course of the last twelve years, the export basis for 1 Canada canola has increased by just 1.2%, rising to an average of $53.14 in the 2010-11 crop year from $52.51 per tonne in the GMP's base year. However, this net change tends to obscure some of the fluctuations that have occurred during this same period. To be sure, the export basis for canola stood marginally below its base-year value for much of this timeframe. In fact, the 6.9% increase witnessed in the 2010-11 crop year served to raise the export basis above this benchmark level for the first time in three years.

The export basis for non-CWB commodities have the same basic structural components as do CWB grains: the direct costs incurred in delivering grain to market; and any financial benefits that serve to offset them. However, over 80% of the direct costs cannot be examined directly. Instead, a price differential – or spread – between the Vancouver cash price and the producers' realized price at the elevator or processing plant is calculated. This differential effectively includes the cost of freight, handling, cleaning, storage, weighing and inspection, as well as an opportunity cost or risk premium.

### Direct Costs

In contrast to the patterns observed for wheat and durum, the direct costs tied to 1 Canada canola have actually declined since the 1999-2000 crop year. Total direct costs in the 2010-11 crop year stood 0.6% below that recorded in the first year of the GMP, having fallen to an average of $54.64 per tonne from $54.99 per tonne. Even when painted against this decline, it must be noted that total direct costs have generally been rising since reaching a low of $41.31 per tonne in the 2004-05 crop year.

Much of the impetus for this reduction has come from a corresponding decline in the price differential. Moreover, this lower value is indicative of the strong prevailing demand for Canadian canola, since a narrowing in the price differential effectively signals that buyers are willing to surrender a greater proportion of the Vancouver price to the producer in order to acquire sufficient supplies. At the close of the 2010-11 crop year, this price differential stood 9.6% below what it had been twelve years earlier, having narrowed to an average of $43.90 per tonne from $48.55 per tonne. This represented 80.3% of the direct costs, against a benchmark share of 88.3% share in the base year.

The second largest component in canola's direct costs is that of trucking the commodity from the farm gate to an elevator or processor. As with CWB grains, these costs are estimated to have climbed by 65.3% in the last twelve years, increasing to an average of $9.82 per tonne from $5.94 per tonne at the beginning of the GMP. Owing to a narrowing in the price differential, trucking accounted for a somewhat greater proportion of direct costs in the 2010-11 crop year, 18.0% versus 10.8% in the base year. The remaining direct costs, which accounted for just 1.7% of the overall total, were derived from a provincial check-off that is applied as a means of funding the Canola Growers Association.

### Financial Benefits

Unlike CWB grains, trucking premiums are not as aggressively used to entice delivery of non-CWB commodities. In fact, over the course of the last twelve years, the average trucking premium paid on canola has fallen to $1.50 per tonne from $2.48 per tonne. Moreover, the value of these premiums as an offset to the direct costs has also declined, falling to 2.8% from 4.5%. It is worth noting that these premiums have largely fallen in conjunction with the narrowing of the price differential. This is consistent with the trade's preference to use the spread between the spot price and the futures price as the primary signalling mechanism to attract deliveries. Although market conditions led to a $0.60 increase in these premiums in the 2010-11 crop year, its role remains a very limited one.

### Large Yellow Peas

The visible netback arising to producers of large yellow peas has proven to be the most volatile of the four commodities monitored under the GMP. As with other commodities, this volatility was occasioned primarily by the rise and fall in market prices. But it has also been affected by pronounced shifts in the export basis. Over the course of the last twelve years, these forces whipsawed the producer's netback for large yellow peas, which extended from a low of $118.75 per tonne in the 2005-06 crop year to a high of $256.31 per tonne in the 2007-08 crop year. As

**Figure 78: Price Differential – 1 Canada Canola**

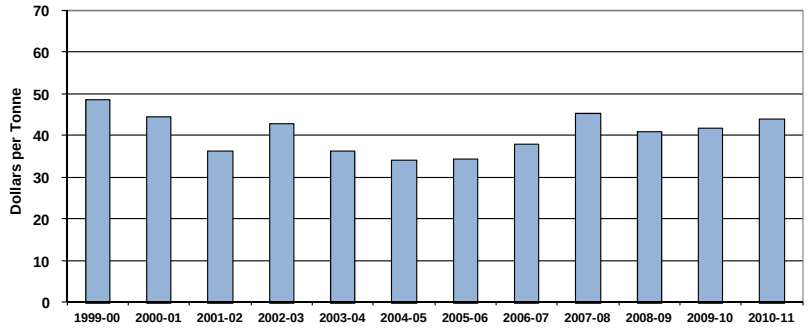
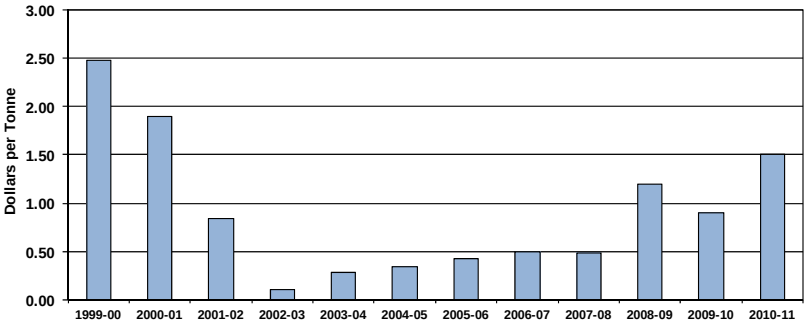



**Figure 79: Financial Benefits – 1 Canada Canola**



with other commodities, recent price gains were largely responsible for a significant improvement in the producer's netback for the 2010-11 crop year, which rose to $213.63 per tonne from $183.40 per tonne a year earlier. Moreover, this marked a 44.6% improvement over the base year's benchmark value of $147.78 per tonne.

### Dealer's Closing Price

Although the supply of Canadian large yellow peas exercises significant sway in the marketplace, its price is sensitive to wider international influences. Reflecting the effects of a reduction in international supply, the dealer's closing price rose to $325.14 per tonne from $202.54 per tonne in the first four years of the GMP. However, increasing supplies brought significant downward pressure on price, which ultimately declined to $171.69 per tonne by the close of the 2005-06 crop year.

Strong international demand in the face of a further decline in production resulted in prices rebounding sharply over the next two years, with the dealer's closing price reaching a GMP record of $341.82 per tonne in the 2007-08 crop year. Still, against the broader backdrop of the global financial crisis, the market price of large yellow peas began to decline again in the 2008-09 crop year. Weaker demand in India, traditionally a price-sensitive market, was a key factor in the application of additional downward pressure in the 2009-10 crop year, with the dealer's closing price falling to an average of $261.72 per tonne.

But prices strengthened in the 2010-11 crop year, with the dealer's closing price rising 14.0%, to $298.49 per tonne. This stood substantially above the $202.54 per tonne benchmarked in the GMP's base year.

### Export Basis

The export basis for large yellow peas rose fairly steadily in the first four years of the GMP, attaining a height of $83.19 per tonne in the 2002-03 crop year against a benchmark value of $54.76 per tonne in the base year. But it then began to fall, ultimately reaching a low of $52.94 per tonne in the 2005-06 crop year. This undulating pattern began to repeat

**Figure 80: Producer Netback – Large Yellow Peas**

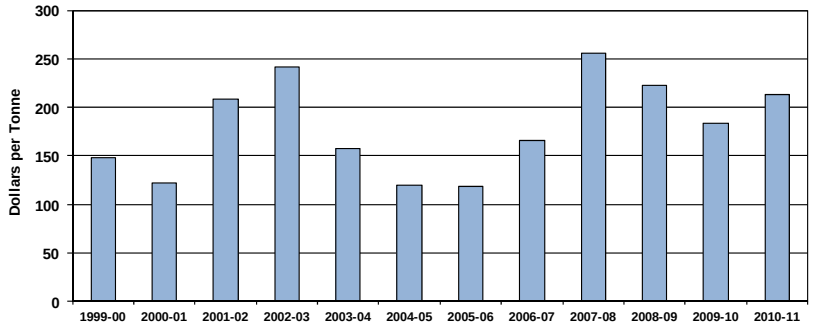
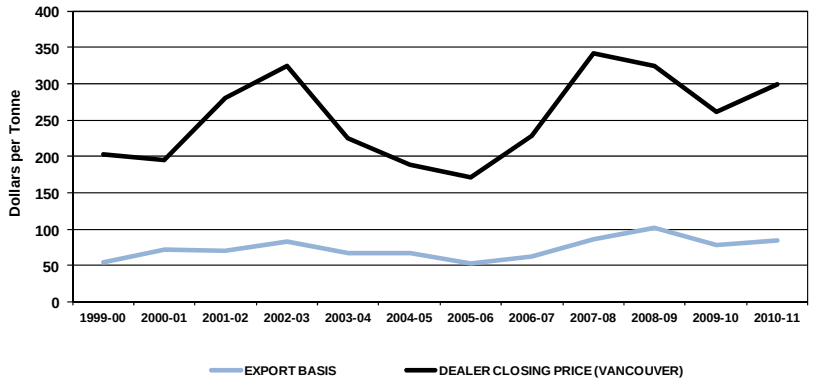



**Figure 81: Producer Netback Component – Large Yellow Peas**



itself in the 2006-07 crop year when the export basis again started to rise. Moreover, the upward momentum continued through the 2008-09 crop year, with the export basis ultimately reaching a new GMP record of $101.57 per tonne. However, the ensuing 2009-10 crop year saw this cut back to $78.32 per tonne. The 2010-11 crop year put a comparatively quick end to this decline, with the export basis rising 8.4%, to $84.86 per tonne. This represented a 55.0% increase over the base-year value.

Owing to the relative size of the direct cost component in the export basis, the changes in each are virtually indistinguishable. As with canola, over 80% of the direct costs tied to large yellow peas cannot be examined directly. Instead, a price differential between the dealer's closing price and the grower's bid closing price is calculated as an approximation for the cost of freight as well as other handling, cleaning, and storage activities.

## Direct Costs

Over the last twelve years the price differential has risen by 51.3%, to $72.96 per tonne in the 2010-11 crop year from $48.23 per tonne in the base year. But this escalation was also characterized by significant fluctuations as a result of prevailing market conditions, taking values that ranged from as little as $44.56 per tonne in the 2005-06 crop year to as much as $91.46 per tonne in the 2008-09 crop year. These same forces were responsible for the sharp pullback witnessed a year later, as well as its ensuing rise in the 2010-11 crop year. Even so, these gyrations did very little to alter its relationship with direct costs, with the price differential falling only marginally, to 85.6% of these costs from 87.8% in the base year.

The second largest component in the direct costs of large yellow peas is trucking. As elsewhere, these costs are estimated using an average haul distance of 40 miles, and are deemed to have amounted to $9.82 per tonne in the 2010-11 crop year. On a comparative basis, this element accounted for 11.5% of total direct costs versus 10.8% at the outset of the

**Figure 82: Price Differential – Large Yellow Peas**

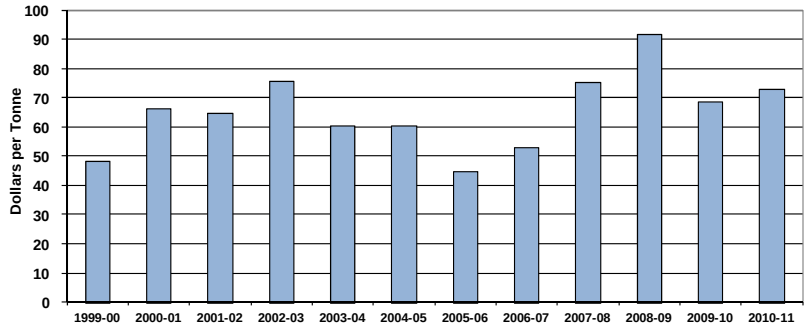
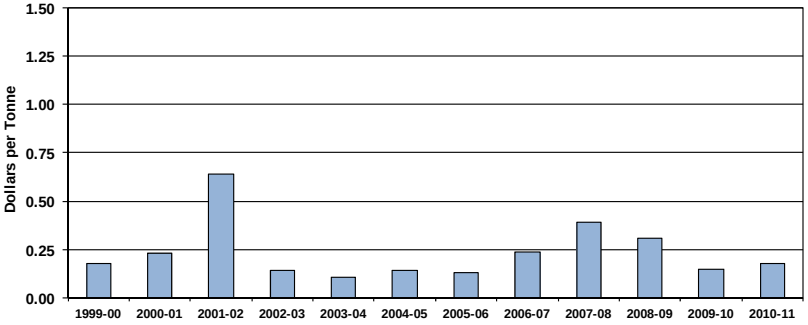



**Figure 83: Financial Benefits – Large Yellow Peas**



GMP. The remaining 2.7% was derived from a levy assessed by the provincial Pulse Growers Association at the time of delivery.

### Financial Benefits

Trucking premiums are even less commonly used to encourage the delivery of large yellow peas than they are for canola. From the outset of the GMP these premiums amounted to an average of just $0.18 per tonne, and provided an offset value of just 0.3% to total direct costs. Although premium payments spiked periodically, reaching as much as $0.64 per tonne in the 2001-02 crop year, its use has once more declined. In the 2010-11 crop year, these premiums again averaged a mere $0.18 per tonne, and provided an offset to direct costs of only 0.2%.

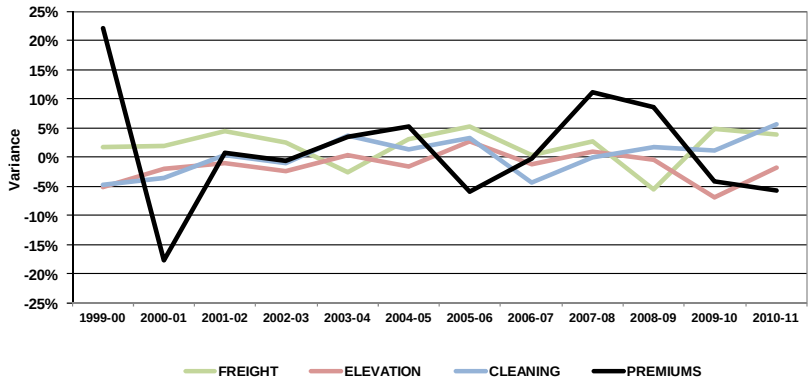
## CASH TICKET ANALYSIS

In order to validate the preceding analysis, a number of grain companies provided the Monitor with a sample of the cash tickets issued by the elevators at each of the 43 stations defined in the sampling methodology. It was intended that these tickets would represent a minimum of three percent of the receipts issued with respect to the grains under examination.[58] In some instances, the grain companies provided larger samples.

The deductions on these cash tickets were then gauged against the averages developed for the export basis. The values obtained from this sampling yielded variances that all stood within 6% of the averages calculated by the Monitor for the movement of wheat in the 2010-11 crop year. These ranged from a low of 1.9% on elevation, to a high of 5.8% for trucking premiums. Within this band were the sample variances for rail freight and cleaning, which amounted to 3.8% and 5.6% respectively.

58 The sample of cash tickets used is based on three percent of the number of tickets actually issued, and does not necessarily correspond to three percent of volume delivered. The average freight charges presented in the data tables are, however, weighted by volume.

**Figure 84: Cash Ticket Variances**




These variances were consistent with those observed a year earlier, although the variances for rail freight and elevation narrowed while those associated with cleaning and trucking premiums widened. Moreover, these variances stand easily within the mainstream of those observed since the beginning of the GMP.

Still, the focus of this analysis rests largely in gauging the accuracy of the trucking premiums reportedly paid by the grain companies. In this regard, although there has been a significant narrowing in the variability witnessed in the first years of the GMP, the variability in the premium data has remained generally greater than that of other cash ticket items.[59] And while data quality remains a factor in the calculation of these

59 The variances pertaining to the trucking premiums paid during the first two crop years must be viewed in the context of the challenge involved in obtaining the necessary information to conduct the analysis. Owing to the fact that the information systems used by the grain companies were not designed to extract the data required for this analysis, there were significant data integrity problems to be overcome. The variances reported for the 1999-2000 and 2000-01 crop years largely reflect these initial difficulties.

variances, the analysis provides reasonable corroboration for the premiums reported by the grain companies. In light of this, the Monitor is satisfied that the methodology used to determine both the export basis and the producer's netback provides a fair portrait of the financial returns arising to western Canadian producers.

## PRODUCER CARS

Producer-car loading has increased substantially since the beginning of the GMP. This has come about as a result of many factors, not the least of which has been the formation of producer-car loading groups. These range from small groups loading cars with mobile augers on a designated siding, to more sophisticated organizations with significant investments in fixed trackside storage and carloading facilities.[60] Some have gone so far as to purchase the branch lines being abandoned by CN or CP, establishing shortline railways that then became an integral element in their broader grain-handling operations. Although the majority of these producer groups are situated in Saskatchewan, a number can also be found in Manitoba and Alberta.

### Loading Sites

The number of producer-car loading sites situated throughout western Canada has been reduced by almost a half since the beginning of the GMP. With the close of the 2010-11 crop year, only 365 out of 709 remained. Much of the overall decline can be traced back to the closures made by the larger Class 1 carriers, which reduced its serviced sites by 61.1%, to 250 from 644. Conversely, those operated by the smaller Class 2 and 3 carriers increased by 76.9%, to 115 from 65. [Table 6B-1]

Regionally, Manitoba and Alberta posted the largest attrition rates, with the number of producer loading sites declining by 66.5% and 62.3%

60 Regardless of the approach employed, the economic rationale for producer-car loading remains rooted in the farmer's ability to avoid the comparatively higher cost of turning his grain over to a commercial grain company for movement.

**Figure 85: Producer-Car Loading Sites**

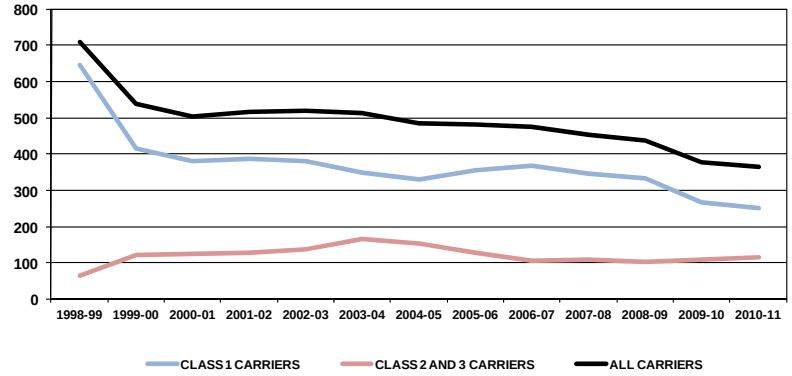
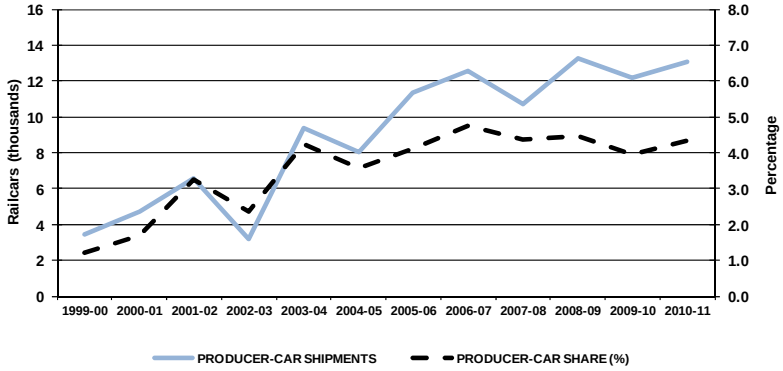



**Figure 86: Producer-Car Shipments**



respectively. The rate of decline in Saskatchewan was substantially less, with the number of sites having fallen by only 28.7% during the same interval. And while the overall number of producer loading sites has declined sharply, the reduction has also been somewhat irregular, with the largest cuts having come in the first few years of the GMP. A significant secondary reduction came in the 2009-10 crop year after CN closed 53 sites, with another six being closed by other carriers. The 2010-11 crop year saw another 13 producer-car-loading sites closed, with much of this again relating to CN closures.

### Producer Car Shipments

Even in the face of the reduction in producer-car-loading sites, producer-car shipments have risen significantly. Through the first decade of the GMP these shipments almost quadrupled, increasing to a high of 13,243 carloads in the 2008-09 crop year from 3,441 carloads in the base year. To be sure this growth in volume has not been altogether continual, but somewhat sluggish. Following a 1,045-carload slide in the 2009-10 crop year, producer-car loading rebounded by 6.9%, with 13,041 carloads shipped in the 2010-11 crop year.

As producer-car volumes have increased, so too has its share of all covered hopper car movements. From an estimated 1.2% in the 1999-2000 crop year, producer-car shipments climbed to a GMP record of 4.7% in the 2006-07 crop year. Although this proportion has fallen back somewhat in recent years, producer cars still accounted for 4.3% of all hopper-car shipments in the 2010-11 crop year. When gauged against the movement of CWB grains alone, the share accorded to producer-car shipments rises, with a GMP record of 7.6% set in the year just ended.

Despite this record, many producers had begun to wonder if the growth in producer-car loading can be sustained. More specifically, they had begun to consider the ramifications for producer-car loading in the face of the federal government's plan to amend the mandate of the CWB. Much of this concern centred on the future role of the CWB itself, which had always shepherded these movements and marketed their grain. [Table 6B-2]

## Appendix 1: Program Background

The Government of Canada selected Quorum Corporation to serve as the Monitor of Canada's Grain Handling and Transportation System (GHTS) in June 2001. Under this mandate, Quorum Corporation provides the government with a series of regular reports relating to the system's overall performance, as well as the effects of the various policy reforms enacted by the government since 2000.

In a larger sense, these reforms were expected to alter the commercial relations that have traditionally existed between the primary participants in the GHTS: producers; the Canadian Wheat Board; grain companies; railway companies; and port terminal operators. Using a broad series of indicators, the government's Grain Monitoring Program (GMP) was designed to measure the performance of the GHTS as this evolution unfolded. Moreover, these indicators are intended to reveal whether grain is moving through the supply chain with greater efficiency and reliability.

To this end, the GMP provides for a number of specific performance indicators grouped under six broad series, namely:

- Series 1 – Production and Supply: Measurements relating to grain production in western Canada. In addition to the major cereal grains, this also includes oilseeds and special crops.

- Series 2 – Traffic and Movement: Measurements focusing on the amount of grain moved by the western Canadian GHTS. This includes shipments from country elevators; by rail to the four western ports; and by vessel from terminal elevators at the ports.

- Series 3 – Infrastructure: Measurements illustrating the makeup of the GHTS. These statistics include both the number and capacity of the country as well as terminal elevator systems, and the composition of the western Canadian railway network.

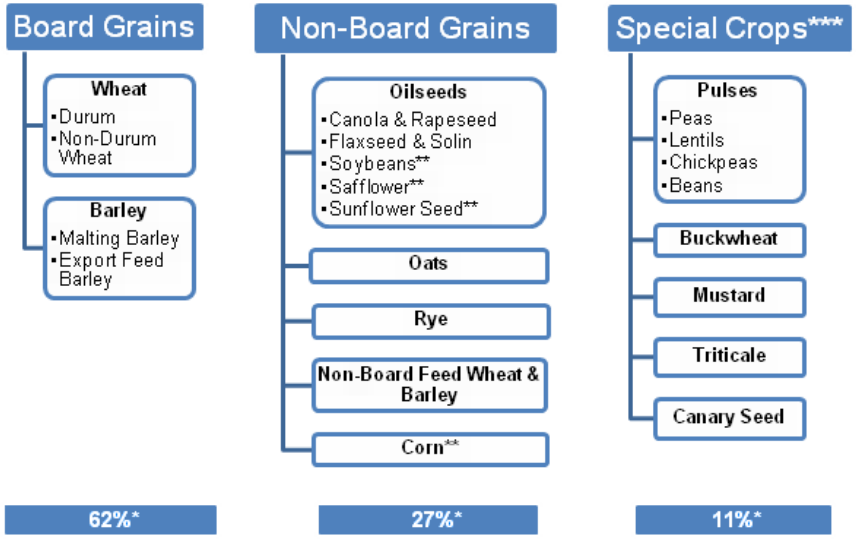
- Series 4 – Commercial Relations: Measurements relating to the rates applicable on various grain-handling and transportation services, as well as the activities of the Canadian Wheat Board in the adoption of more commercially oriented policies and practices.

- Series 5 – System Efficiency and Performance: Measurements aimed at gauging the operational efficiency with which grain moves through the logistics chain.

- Series 6 – Producer Impact: Measurements designed to capture the value to producers from changes in the GHTS, and which are focused largely on the calculation of the "producers' netback."

## Appendix 2: Commodities Guide

The following provides a high-level overview of the various commodities discussed in this report. The delineations made here are drawn from the Canadian Grain Commission's Official Grain Grading Guide Glossary.




* Percent of railway shipments to the four western ports in the past five years.

** Also may be considered special crops.

*** Not all special crops as defined by the CGC are included under the umbrella of the Canadian Special Crops Association.

**Board Grains:** Board grains are western grains marketed under the control of the Canadian Wheat Board (CWB). These include western wheat and barley destined for the export market, as well as domestic sales of wheat and barley for human consumption. Domestic feed wheat and domestic feed barley may be sold either on the open market or delivered to the CWB.

**Non-Board Grains:** Non-Board grain is grain marketed through the open market system. Such grain includes domestic feed wheat and barley, rye, oilseeds and specialty crops.

**Oilseeds:** Oilseeds include flaxseed and solin, canola and rapeseed, soybeans, safflower and sunflower seed.

**Canola:** The term "canola" was trademarked in 1978 by the Western Canadian Oilseed Crushers' Association to differentiate the new superior low-erucic acid and low-glucosinolate varieties and their products from older rapeseed varieties.

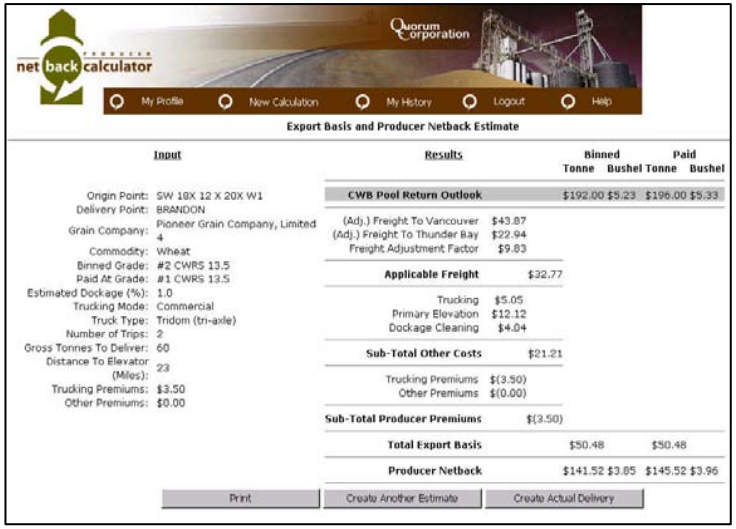
**Special Crops:** Special crops are considered to be beans, buckwheat, chick peas, corn, fababeans, lentils, mustard, peas, safflower, soybeans, sunflower, and triticale.

**Pulses:** Pulses are crops grown for their edible seeds, such as peas, lentils, chick peas or beans.

**Screenings:** Screenings is dockage material that has been removed by cleaning from a parcel of grain.

## Appendix 3: Producer Netback Calculator

Many stakeholders have expressed concern over the increased trucking distances in moving grain from the farm gate to the elevator as a result of the rationalization of GHTS infrastructure. While all evidence suggests that truck hauls are increasing because of the reduced number of delivery points, the exact – or even approximate – amount of this increase remains unknown. To be sure, the GMP assumes an average haul of 40 miles when estimating the producers' netback. Following stakeholder consultations, an internet-based approach was developed. The Producer Netback Calculator (PNC) was designed to provide a cost-effective and non-intrusive means of gathering better data on the producer's actual trucking distances.




The output screen for Quorum Corporation's Netback Calculator.

To entice producers into providing this data, the PNC would provide farmers with data on the costs associated with moving grain from farm-specific locations to export position (the export basis). These costs are the same ones reflected as deductions on cash tickets. The PNC was designed to assist farmers in determining the delivery options that would provide them with the best returns for their wheat, durum and feed barley.

To gain access to the PNC, producers are provided with their own personal log-in identification and password, which is secured through 128-bit encryption technology. This ensures that all information is communicated with the strictest confidentiality. Producers can also be assured that Quorum Corporation will not publish or share any of the information it collects.

Calculation of a producer's estimated export basis and netback is based on the entry of movement-specific information (i.e., delivery point, grain company, grain, grade, etc.). After entering this basic information, the producer can then run a calculation that will return a tabular accounting of the export basis and producer netback based on the CWB's Pool Return Outlook. The producer also has the option of "recalculating" these estimates by returning to a previous screen, and changing any of the parameters used in the calculation (i.e., destination station, grain company, etc.).

Every estimate will be recorded and accessible to the producer through a "history" listing. It is through this screen that producers are given the ability to create comparative reports that can present these estimates – or those they wish to see – in summary or detail. These reports can also be printed or presented as a computer spreadsheet. This is also the section of the system where the

producer identifies estimates that subsequently resulted in actual grain movements. As a result, it is hoped that Quorum Corporation will be able to gather meaningful logistics data from these transactions, and more specifically the actual length of haul involved in delivering grain to an elevator. If successful, this information will be incorporated into the calculation of the producer's netback.

## Appendix 4: Acknowledgements

The scope of this review is far-reaching and could not have been completed without the assistance of the various stakeholders that submitted views on the detailed monitoring design and provided the data in support of the GMP. Quorum Corporation would like to thank the following organizations, and more particularly the individuals within them, for the cooperation they have extended in our efforts to implement the Grain Monitoring Program. We have come to appreciate not only their cooperation as suppliers of data under the program, but to value their assistance in helping to improve the quality of the program as a whole. We look forward to their continued input and cooperation throughout the duration of the Monitoring Program.

Agricultural Producers Association of Saskatchewan
Agriculture and Agri-Food Canada
Alberta Agriculture, Food and Rural Development
Alberta Infrastructure and Transportation
Alliance Grain Terminal Ltd.
Alliance Pulse Processors Inc.
Battle River Railway
Boundary Trail Railway Company Inc.
Canadian Canola Growers Association
Canadian Grain Commission
Canadian Maritime Chamber of Commerce
Canadian National Railway
Canadian Pacific Railway
Canadian Ports Clearance Association
Canadian Ship Owners Association
Canadian Special Crops Association
Canadian Transportation Agency
Canadian Wheat Board
Cando Contracting Ltd.
Cargill Limited
CMI Terminal
Fife Lake Railway Ltd.
Gardiner Dam Terminal
Government of British Columbia
Grain Growers of Canada
Great Sandhills Terminal
Great Western Railway Ltd.
ICE Futures Canada, Inc.
Inland Terminal Association of Canada
Keystone Agricultural Producers
Kinder Morgan Canada
Lethbridge Inland Terminal Ltd.
Louis Dreyfus Canada Ltd.
Manitoba Agriculture, Food and Rural Initiatives
Manitoba Infrastructure and Transportation
Mission Terminal Inc.
Mobile Grain Ltd.
National Farmers Union
North West Terminal Ltd.
OmniTRAX Canada, Inc.
Parrish & Heimbecker Ltd.
Paterson Grain
Port of Churchill
Port of Prince Rupert
Port of Thunder Bay
Port of Vancouver
Prairie West Terminal
Prince Rupert Grain Ltd.
Red Coat Road and Rail Ltd.
Richardson Pioneer Ltd.
Saskatchewan Agriculture and Food
Saskatchewan Highways and Transportation
Saskatchewan Association of Rural Municipalities
South West Terminal
Statistics Canada
Stewart Southern Railway
Transport Canada
Viterra Inc.
West Central Road and Rail Ltd.
Western Barley Growers Association
Western Canadian Wheat Growers Association
Western Grain By-Products Storage Ltd.
Western Grain Elevator Association
Weyburn Inland Terminal Ltd.
Wild Rose Agricultural Producers