

# Second Quarter Report

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# 2010-2011 Crop Year

Monitoring the Canadian Grain  
Handling and Transportation System

1 Summary  
Report



Government of Canada  
Gouvernement du Canada





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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 six months ended 31 January 2011, and focuses on the various events, issues and trends manifest in the movement of Western Canadian grain during the first half of the 2010-11 crop year.

As with the Monitor's previous quarterly and annual reports, the report that follows is structured around a number of measurement indicators. The close of the 2009-10 crop year saw the traditional five-group subdivision of these indicators changed, with their reorganization into a new six-group 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 reliable quarterly data in a time series that extends into 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](http://www.quorumcorp.net)). Additional .PDF copies of this report, as well as all past reports, can also be downloaded from the Monitor's website.

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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 inroads were subsequently made, it was not supported by hot, dry weather. Rather, record or near-record rainfalls continued to vex farmers through much of the remaining growing season. This was accompanied by an equally cool and wet fall, which tempered the pace of the harvest significantly. Compounding these problems were the effects of a mid September frost, which undermined the quality of the crop yet to be gathered.

Not surprisingly, both the quality and quantity of the grain brought in from the field fell well short of the normal standards. Overall grain production for the 2010-11 crop year fell to 48.8 million tonnes, a 13.1% reduction from the previous crop year's 56.1 million tonnes. When combined with the 11.0 million tonnes of stock carried forward from the preceding crop year, the overall grain supply reached 59.7 million tonnes. This embodied a reduction of 9.0% from the previous crop year's 65.7 million tonnes.

### TRAFFIC AND MOVEMENT

Despite the reduction in the grain supply, the GHTS's total handlings in the first half of the 2010-11 crop year proved only moderately different from that experienced in the same period a year earlier.

- Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by just 2.1%, to 16.0 million tonnes from 16.3. 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 increased by 3.1 in the first half, with the total rising to 14.2 million tonnes from 13.8 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 13.7 million tonnes, moved in covered hopper cars. The remaining 533,500 tonnes moved in different forms of railway equipment, with the most predominant being containers.
- The port of Vancouver remained the principal export destination for western Canadian grain, receiving a GMP record of 8.6 million tonnes in the first half of the crop year, against 8.1 million tonnes in the same period a year earlier. Shipments to Prince Rupert fell by 17.8%, to 1.9 million tonnes from 2.4 million tonnes. Thunder Bay also posted a reduction in traffic volume, albeit a more moderate 6.4% decline, falling to 2.5 million tonnes from 2.7 million tonnes a year earlier. In contrast, rail shipments to Churchill increased by 33.5%, to 598,800 tonnes from 448,600 tonnes.

- Port throughput in the first half, as measured by the volume of grain shipped from terminal elevator and bulk loading facilities located at Canada's four western ports, totalled 12.9 million tonnes. This represented a gain of 3.4% over the 6.4 million tonnes handled in the same period a year earlier. Vancouver accounted for 59.6% of this volume, with total marine shipments climbing to 7.7 million tonnes from 7.0 million tonnes. West-coast shipments were bolstered by another 1.9 million tonnes exported through Prince Rupert, although the port's throughput for the period declined by 14.0%. Thunder Bay also saw a reduction, albeit of only 1.0%, which left its throughput unchanged at 2.6 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 first half of the 2010-11 crop year.

- The total number of country elevators increased by just one in the first half, to 367 from 366 at the close of the previous crop year. This brought the accumulated loss to 637 facilities, or 63.4%, since the beginning of the GMP. An equally modest change in grain delivery points was also recorded during the period, with the total being reduced by one to 273. This was complemented by yet another 91,400 tonnes of additional storage capacity, with the overall total being raised to more than 6.4 million tonnes for the first time since the 2001-02 crop year.
  - With CN's abandonment of 74.4 route-miles of track in the first half, 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 first six months of 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 recorded in the first six months of 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.
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## 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 substantive hikes in the rates for short-haul trucking to more moderate increases in the fees for local elevator handling.

- Commercial trucking rates for the movement of grain moved sharply higher in the first quarter of the 2010-11 crop year, but remained unchanged through the close of the second. 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 18.8%, to 157.0 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. Even so, these increases again proved corridor specific, accentuating still further the price differentials that had arisen since that time. For the most part, these actions underscored the growing complexity in railway pricing, and the further heightening of competition between CN and CP at specific points in their respective networks. The rates published by both carriers remained unchanged through the second quarter.
- Changes to the per-tonne rates assessed by grain companies for a variety of primary elevator handling activities proved mixed in the first half of the 2010-11 crop year. Among the decliners were the rates assessed for the receiving, elevating and loading out of grain, which fell by an average of 1.0%. An even sharper reduction of 8.5% 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 2.4%.
- Most of the GHTS's terminal elevators increased their per-tonne rates for the receiving, elevating and loading out of grain in the first half of 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 2.0%.

## Tendering

The CWB issued a total of 109 tenders calling for the shipment of approximately 2.0 million tonnes of grain in the first half. This represented a 44.1% increase over the 1.4 million tonnes put out to tender in the same period a year earlier. Unlike past years, the majority of this tonnage, 59.5%, related to barley. This entailed a potential movement of 1.2 million tonnes, an amount approximately six times what had been called a year earlier. Wheat ranked second, with calls for 709,800 tonnes having been issued. This denoted 35.3% of the overall total compared to 72.6% the year previous. Durum calls, which fell to a 5.1% share from the 12.9% share seen a year earlier, encompassed a mere 103,500 tonnes.



The CWB's tender calls were met by 339 bids offering to move 4.6 million tonnes of grain, more than twice the amount sought. The majority of these bids, 73.0%, responded to calls for the movement of barley. Another 24.3% responded to those issued for wheat, while the remaining 2.7% answered those for durum. Ultimately, this resulted in the awarding of 139 contracts for the movement of 1.0 million tonnes of grain. This marked a reduction of 362,500 tonnes from the 1.4 million tonnes awarded a year earlier. The largest proportion, 48.8%, was directed to the port of Vancouver. This was followed in turn by Prince Rupert, Thunder Bay and Churchill, which realized proportions of 37.8%, 12.5% and 0.9% respectively. These shipments represented 15.4% of the total tonnage shipped by the CWB to western Canadian ports in the first six months of the 2010-11 crop year.

#### **Advance Awards**

The total tonnage moved under the CWB's advance car awards program fell by 9.9% in the first half, to 638,600 tonnes from 708,800 tonnes a year earlier. This represented 9.9% of the total tonnage shipped to the four ports in western Canada by the CWB, against the 9.4% share produced in the same period a year earlier.

In conjunction with the 998,400 tonnes that moved under the CWB's tendering program, a total of 1.6 million tonnes of CWB grain were moved under the auspices of these two programs. On a combined basis, this represented 25.3% of the CWB's total grain shipments to the four ports. This fell considerably short of the 40% that had been targeted, and somewhat below the 27.4% that had been handled under these same two programs a year earlier.

#### **Commercial Developments**

There were a few notable developments in the commercial activities surrounding the movement of grain in the first six months of the 2010-11 crop year. These included the following:

- 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. Although this review was largely completed by the close of the 2009-10 crop year, the review panel's report had not been released. However, October 2010 saw the release of the panel's interim report, which was widely circulated among stakeholders for commentary. Many in the grain industry expressed disappointment, claiming that the report effectively advocated waiting another three to five years before the government did anything to address its concerns. The railways, conversely, argued that the recommendations were going too far down the road towards a possible reregulation of their industry. By the close of the second quarter the review panel's final report had still not released.
  
  - 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. The Canadian
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Wheat Board welcomed the government's decision as it has long used the Great Lakes fleet to move western Canadian grain from Thunder Bay, through the St. Lawrence Seaway, and onto eastern destinations. With about 75% of its eastbound grain movements using this system, the CWB expected that the elimination of the customs duty would generate longer-term savings for western Canadian farmers, as they ultimately bear a significant portion of the higher costs derived from operating this fleet of older and less efficient vessels.

### SYSTEM EFFICIENCY AND PERFORMANCE

Although the grain supply declined by 9.0%, to 59.7 million tonnes from 65.7 million tonnes a year earlier, the 14.2 million tonnes of grain shipped in the first half of the 2010-11 crop year proved 3.1% greater than that handled in the same period the year previous. As a result, the pressures brought to bear on the GHTS during this period remained at heightened levels. Unfortunately, system performance declined noticeably as a result of the significant operating challenges that confronted CP in the first six months of the 2010-11 crop year.

- The overall amount of time involved in moving grain through the supply chain rose by 5.7% in the first half, to an average of 55.2 days from the previous crop year's overall 52.2-day average. This was due to an additional 1.4 days having been spent by grain in storage at a country elevator; a further 0.5 days in transit as a railway shipment; and another 1.1 days in inventory at a terminal elevator. Despite the overall increase, grain still spent 12.9 fewer days moving through the GHTS in the first half of the 2010-11 crop year 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. While the reverberations from the June 2010 washout of CP's mainline were still being felt, the carrier had to begin grappling with an unusually heavy accumulation of snow in the Rockies, which precipitated avalanches and control measures that repeatedly disrupted railway operations between December 2010 and January 2011. This served only to compound the delays and car-supply problems that had already been plaguing CP shippers since the beginning of the crop year. Moreover, they had already begun to spread to other parts of the supply chain. Grain movements out of the country were reduced as CP's car supply became more constricted. This occasioned delays to ships awaiting the arrival of CP grain trains at Vancouver. And what had earlier been shipper frustration now began to give way to anger as the financial burdens from vessel demurrage began to reach unprecedented levels.

### PRODUCER IMPACT

All of the data assembled since the beginning of the GMP has consistently shown that the financial returns accruing 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. The GMP only includes the producer netback in the Monitor's annual reports since certain elements integral to the calculation are not available until after the close of the

crop year itself. Nevertheless, current price and input-cost data are collected for both wheat and canola as a means of providing some insight into their probable impact on the per-tonne financial return arising to producers. Some of the changes observed during the first six months of the 2010-11 crop year are summarized below.

- The CWB's Pool Return Outlook (PRO) for 1 CWRS wheat (13.5% protein) moved steadily upwards in the first half. Gauged against the 2009-10 crop year's final realized price of \$236.80 per tonne, the PRO rose by a factor of 44.4%, closing out the period at \$342.00 per tonne. Much of the impetus for this improvement came from the expectation of tighter global wheat supplies in the face of a severe drought experienced by Russia and other Black-Sea exporters. This gain suggests a substantive improvement in the financial returns accruing to western producers in the 2010-11 crop year.
- The Vancouver cash price for 1 Canada canola also climbed steadily in the first half, rising by 26.9% to an average of \$538.19 per tonne against the previous crop year's final average of \$424.19 per tonne. This was fuelled in large measure by a growing export demand, which saw canola reaching into new markets. This increase in price strongly suggests a positive impact on the per-tonne financial returns of western Canadian producers.

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. Some of the more significant changes observed in the first six months of the 2010-11 crop year are highlighted below.

- The number of producer-car loading sites situated throughout western Canada has been reduced by about a half since the beginning of the GMP, with only 378 of the original 709 left in service at the close of the 2009-10 crop year. Early in the first quarter another four were closed, which reduced the total number of remaining sites to 374.
  - Even with reduced producer-car-loading sites, producer-car shipments have continued to grow. Total shipments rose by 1.4% in the first half, to 5,354 carloads from 5,281 carloads a year earlier.
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## Section 1: Western Canadian Production and Supply

Indicator Description	Table	1999-00	2008-09	2009-10	2010-11				YTD	% VAR
					Q1	Q2	Q3	Q4		
<b>Production and Supply</b>										
Crop Production (000 tonnes)	1A-1	55,141.7	60,351.7	56,144.2	48,769.1				48,769.1	-13.1%
Carry Forward Stock (000 tonnes)	1A-2	7,418.2	5,646.6	9,515.3	10,955.1				10,955.1	15.1%
Grain Supply (000 tonnes)		62,559.9	65,998.3	65,659.5	59,724.2				59,724.2	-9.0%
Crop Production (000 tonnes) - Special Crops	1A-3	3,936.7	5,157.4	5,573.7	5,420.3				5,420.3	-2.8%

## 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 vex farmers through much of the remaining growing season. This was accompanied by an equally cool and wet fall, which tempered the pace of the harvest significantly. Compounding these problems were the effects of a mid September frost.

Not surprisingly, both the quality and quantity of the grain brought in from the field fell well short of the normal standards. Overall grain production for the 2010-11 crop year fell to 48.8 million tonnes, a 13.1% reduction from the previous crop year's 56.1 million tonnes. Although this denoted the fourth smallest harvest under the GMP, the most pressing issue facing the industry centred on how best to market a crop wherein two-thirds the grain was of markedly lower quality.

### Provincial Distribution

Much of the reduction was concentrated in Saskatchewan and Manitoba, where production fell by a combined 10.4 million tonnes. The most sizeable loss was registered by Saskatchewan, where production fell by 8.1 million tonnes, or 27.2%, to 21.7 million tonnes from 29.9 million tonnes a year earlier. This was amplified by a 2.3-million-tonne decline in Manitoba, where output slumped by 22.9%, to 7.8 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 19.3% gain for Alberta, which saw production rise to 19.1 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.

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

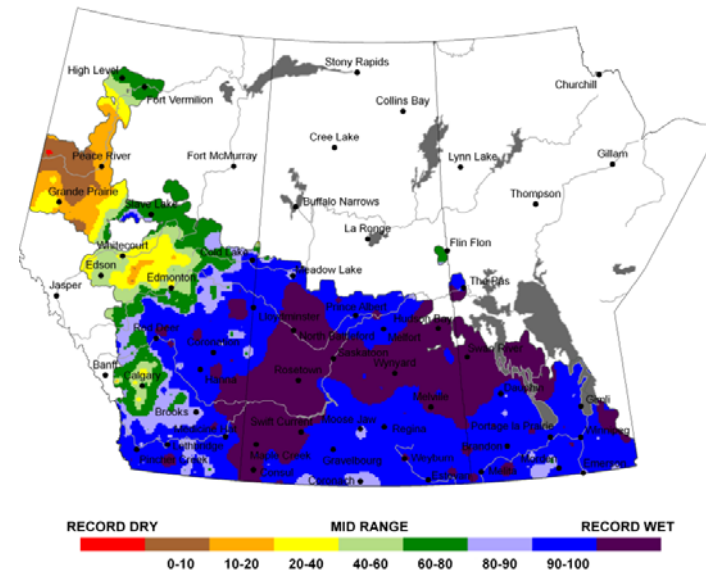
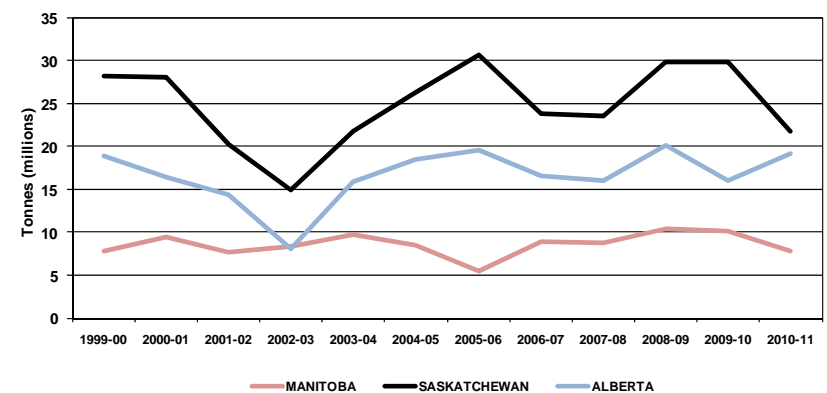


Figure 2: Provincial Grain Production



### 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 8.1% for non-CWB grains. With total 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 75% of the overall loss. The decline in non-CWB grain production, which fell to 20.7 million tonnes from the previous crop year's 22.6 million tonnes, accounted for the remaining 1.8 million tonnes.

The 5.5-million-tonne 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.

With 11.8 million tonnes of production, canola accounted for more than half of the 20.7 million tonnes of non-CWB grains harvested in the 2010-11 crop year. Still, the 0.6-million-tonne reduction in the canola crop represented only a third of the decrease in non-CWB grain production. Among the more notable decliners in this segment's wider 1.8-million-tonne reduction were: oats, with a loss of 0.6 million tonnes; dry peas, 0.5 million tonnes; and flaxseed, 0.5 million tonnes.

### Special Crops

Special crop production also declined, albeit by a much lesser 2.8%, falling to 5.4 million tonnes from 5.6 million tonnes a year earlier.<sup>1</sup> Even so, this result was shaped by a broader mix of individual gains and

<sup>1</sup> 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.

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

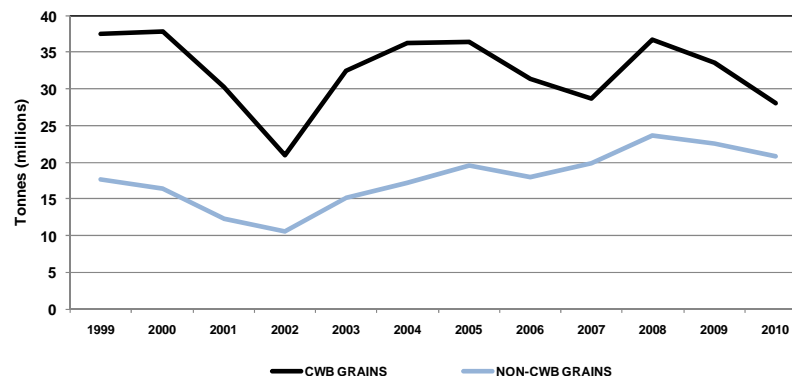
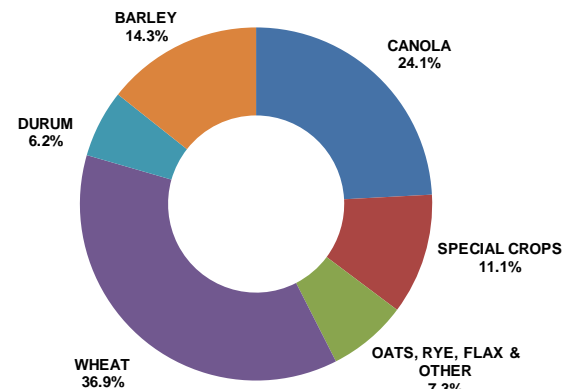


Figure 4: Major Grain Production - 2010-11 Crop Year



losses. The most significant decline related to dry peas - the sector's largest single crop - which posted a 15.3% reduction, falling to 2.9 million tonnes from 3.4 million tonnes a year earlier. This was enlarged by the losses for a host of other commodities, including mustard seed, canary seed, sunflower seed and dry beans. However, a major portion of these losses were offset by a 28.9% increase in the output of lentils, which rose to 1.9 million tonnes from 1.5 million tonnes a year earlier. [Table 1A-3]

### Carry-Forward Stock and Western Canadian Grain Supply

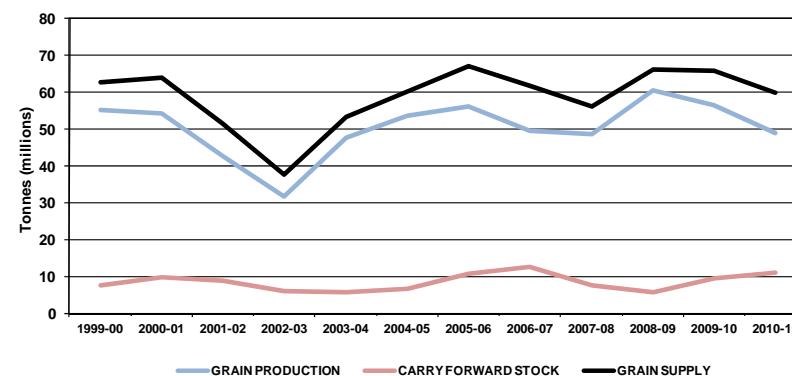
While grain production has the most immediate impact on the grain supply, it is also affected by the amount of grain held over in inventory from the previous crop year. In fact, carry-forward stocks typically account for about one-sixth of the overall grain supply.<sup>2</sup> These stocks tend to move in conjunction with changes in grain production, albeit on a lagging basis.

Totalling some 11.0 million tonnes, these stocks proved to be 15.1% greater than the 9.5 million tonnes that had been carried forward a year earlier. Much of the impetus for this 1.5-million-tonne increase came from mounting global grain supplies, particularly for wheat and durum, which also contributed to the softening of commodity prices. When combined with 48.8 million tonnes of new production, the grain supply reached 59.7 million tonnes. This embodied a reduction of 9.0% from the previous crop year's 65.7 million tonnes. [Table 1A-2]

Although increases were recorded in the carry-forward stocks of every province, the most substantive gain was in Saskatchewan. With some 1.4 million tonnes of additional stocks, Saskatchewan accounted for just over 95% of the overall increase. Over three-quarters of the province's increase related to heightened wheat and durum stocks.

<sup>2</sup> 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). The carry-forward stocks cited here are derived from data provided by Statistics Canada and the Canadian Grain Commission.

Figure 5: Western Canadian Grain Supply





## Section 2: Traffic and Movement

Indicator Description	Table	2010-11								
		1999-00	2008-09	2009-10	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Throughput</b>										
Grain Throughput (000 tonnes) - Primary Elevators	2A-1	32,493.9	35,349.1	33,861.4	8,240.0	7,729.4	-	-	15,969.4	-2.1%
<b>Railway Traffic</b>										
Railway Shipments (000 tonnes) - All Grains	2B-1	26,439.2	27,338.4	28,443.8	7,551.1	6,688.8	-	-	14,239.9	3.1%
Railway Shipments (000 tonnes) - Hopper Cars	2B-1	25,664.6	26,792.6	27,777.8	7,303.9	6,402.5	-	-	13,706.5	0.9%
Railway Shipments (000 tonnes) - Non-Hopper Cars	2B-1	774.7	545.8	666.0	247.2	286.3	-	-	533.5	139.0%
Special Crop Shipments (000 tonnes) - All Grains	2B-2	2,102.9	2,945.4	2,718.9	1,100.7	801.8	-	-	1,902.5	34.8%
Special Crop Shipments (000 tonnes) - Hopper Cars	2B-2	1,844.1	2,851.8	2,665.3	1,088.0	788.0	-	-	1,876.0	35.6%
Special Crop Shipments (000 tonnes) - Non-Hopper Cars	2B-2	258.7	93.6	53.5	12.7	13.8	-	-	26.5	-2.5%
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	6,402.5	-	-	13,706.5	0.9%
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	2,316.0	1,908.4	-	-	4,224.4	-3.0%
Hopper Car Shipments (000 tonnes) - Non-Grain-Dependent Network	2B-6	16,978.7	19,194.7	19,035.9	4,987.9	4,494.1	-	-	9,482.0	2.7%
Hopper Car Shipments (000 tonnes) - Class 1 Carriers	2B-7	23,573.5	26,019.6	26,945.8	7,028.7	6,173.4	-	-	13,202.1	-0.1%
Hopper Car Shipments (000 tonnes) - Non-Class-1 Carriers	2B-7	2,091.0	773.0	832.0	275.3	229.1	-	-	504.4	37.3%
<b>Terminal Elevator Throughput</b>										
Grain Throughput (000 tonnes) - All Commodities	2C-1	23,555.5	25,639.0	25,760.4	6,392.9	6,461.6	-	-	12,854.5	3.4%
Hopper Cars Unloaded (number) - All Carriers	2C-2	278,255	294,335	286,630	74,792	69,691	-	-	144,483	2.8%
Hopper Cars Unloaded (number) - CN	2C-2	144,800	144,943	144,894	37,795	40,642	-	-	78,437	14.4%
Hopper Cars Unloaded (number) - CP	2C-2	133,455	149,392	141,736	36,997	29,049	-	-	66,046	-8.1%

## COUNTRY ELEVATOR THROUGHPUT

Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by 2.1% in the first six months of the 2010-11 crop year, falling to 16.0 million tonnes from 16.3 million tonnes a year earlier. This decline had a broad geographic base, with the majority of provinces registering lower throughputs in the first half.

With a 28.7% reduction, British Columbia led the list of decliners, posting a throughput of 98,700 tonnes against 138,400 tonnes a year earlier. Ranking second was Manitoba, where a reduction of 10.7% saw shipments fall to 3.0 million tonnes from 3.4 million tonnes. And even though Saskatchewan disclosed a comparatively lesser decline of 6.4%, its total shipments fell by a more substantive 532,600 tonnes, to 7.8 million tonnes from 8.4 million tonnes. The only province to run counter to these results was Alberta, where a 13.5% increase heightened throughput by 594,000 tonnes, to 5.0 million tonnes. Much of this gain was attributable to a 21.1% increase in second-quarter throughput, which was shaped - at least in part - by shippers attempting to draw more grain into CN-served facilities as a means of circumventing the operational problems being experienced by CP at this time. [Table 2A-1]

## RAILWAY TRAFFIC

The amount of regulated grain moved by rail to western Canadian ports increased by 3.1% in the first six months of the 2010-11 crop year, with the total volume rising to 14.2 million tonnes from 13.8 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 13.7 million tonnes, moved in covered hopper cars. The remaining 533,500 tonnes moved in different forms of railway equipment, the most predominant being containers. Owing to a substantive rise in these latter movements, their share of total railway shipments rose to 3.7% from 1.6% a year earlier. [Table 2B-1]

Special-crop shipments posted an even greater gain, as railway volume rose by 34.8%, to 1.9 million tonnes from 1.4 million tonnes a year

Figure 6: Primary Elevator Throughput

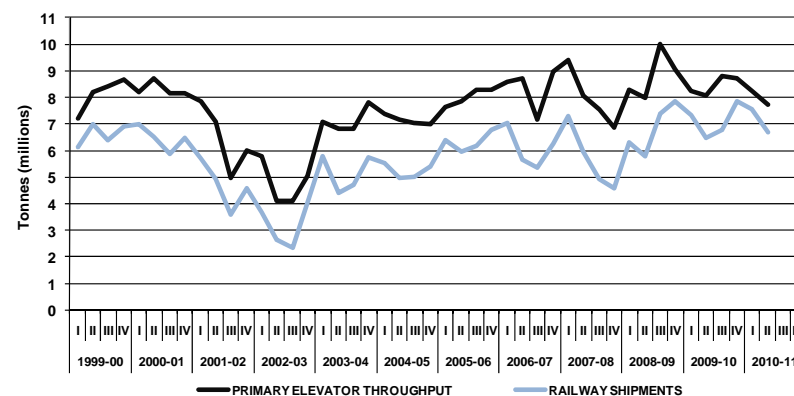
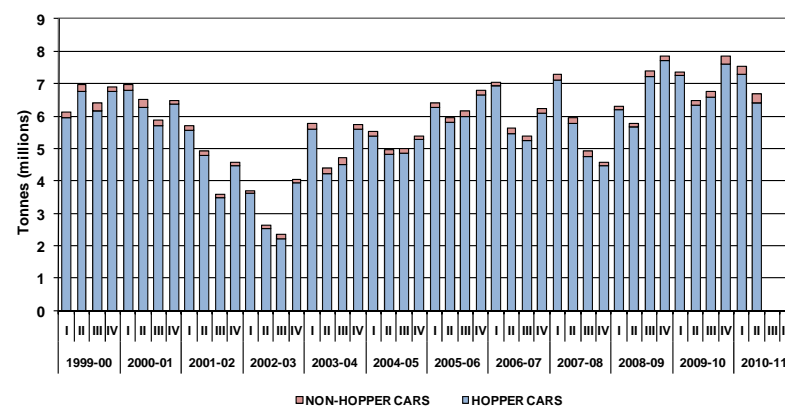


Figure 7: Railway Shipments - Hopper and Non-Hopper Cars



earlier. This increase was derived primarily from a more substantive hopper-car movement, as non-hopper-car shipments fell by 2.5%, to 26,500 tonnes from 27,200 a year earlier. [Table 2B-2]

### Hopper Car Movements

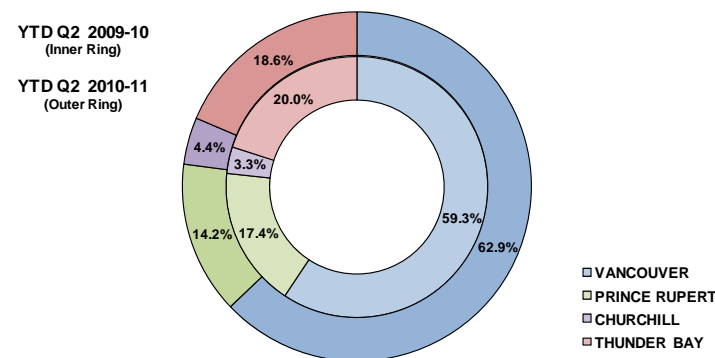
Western Canadian hopper-car shipments increased by a mere 0.9% in the first six months of the 2010-11 crop year, to 13.7 million tonnes from 13.6 million tonnes. This gain stood in contrast to a 13.1% decline in grain production and a 9.0% reduction in the overall grain supply.

The result was largely shaped by a 571,300-tonne increase in shipments from Alberta, which rose by 13.8% to 4.7 million tonnes, and effectively counteracted the reductions posted by the other producing provinces. The most significant of these was in Saskatchewan, where shipments fell by 330,400 tonnes, or 4.5%, to 7.0 million tonnes. With a 4.6% reduction in volume, shipments from Manitoba declined by a noticeably lesser 90,600 tonnes, to 1.9 million tonnes. British Columbia shipped a total of 155,800 tonnes during this period, some 32,600 tonnes less than that posted a year earlier. [Tables 2B-3 through 2B-5]

### Destination Ports

The port of Vancouver remained the principal export destination for western Canadian grain in the first half. Traffic to Vancouver totalled 8.6 million tonnes, a gain of 7.0% against the 8.1 million tonnes directed there a year earlier. This constituted a new GMP record for the period, and one which raised the port's share of railway shipments to 62.9% from 59.3% a year earlier. Running counter to this was the volume directed to Prince Rupert, which fell by 17.8% in the first half, to 1.9 million tonnes from 2.4 million tonnes. As a result of this decline, the overall share accorded to Prince Rupert fell to 14.2% from 17.4%. Even so, these two ports received a combined 77.0% of the grain moved to export position in covered hopper cars, a marginal gain over the 76.7% share garnered in the same period a year earlier.

Figure 8: Railway Hopper Car Shipments - Destination Port



Owing to the gains made by these 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 6.4% decrease in rail shipments in the first half, it still ranked as the second largest destination for export grain, receiving 2.5 million tonnes against 2.7 million tonnes for the same period a year earlier. In contrast, rail shipments to Churchill increased by 33.5%, climbing to 598,800 tonnes from 448,600 tonnes. This translated into a marginally greater share for the period, which increased to 4.4% from 3.3% a year earlier.

### 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 first six months of the 2010-11 crop year, the tonnage originated by the non-grain-dependent network increased 2.7%, to 9.5 million tonnes from 9.2 million tonnes a year earlier. At the same time, traffic originating at points on the grain-dependent network decreased by 3.0%, to 4.2 million tonnes from 4.4 million tonnes.

As these results suggest, the non-grain-dependent network continues to garner a larger share of the overall traffic volume. In the first six months of the 2010-11 crop year, 69.2% 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 it earned in the GMP's base year. The reverse is of course true of the traffic originated by the grain-dependent network, whose relative share has fallen to 30.8% 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 0.1% in the first half, while the volume originated by the smaller, non-Class-1 carriers increased substantially, by 37.3%. 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 declined by a factor of 40% over the course of the GMP, to claim just 3.7% of the total volume against a benchmark 8.4% share in the same six-month period of the GMP's base year. [Table 2B-7]

Even so, the amount of traffic originated by shortline railways has not fallen as sharply as the number of licensed elevators served by them, which were reduced by 64.6% in the same period. In fact, the data indicates that increased producer-car loading has helped replace a significant portion of the grain volume that would otherwise have been lost following the closure of these licensed facilities. By current estimates, producer-car shipments now account for about 30% of the traffic originated by these carriers, approximately twice that observed in the first year of the GMP.

Figure 9: Hopper Car Shipments - Grain-Dependent Originations

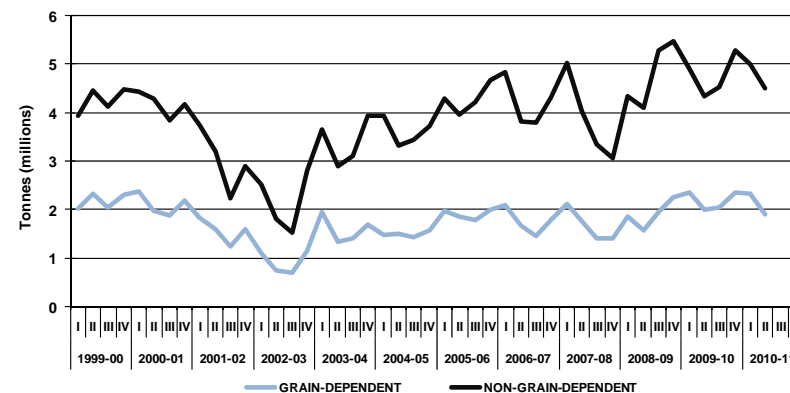
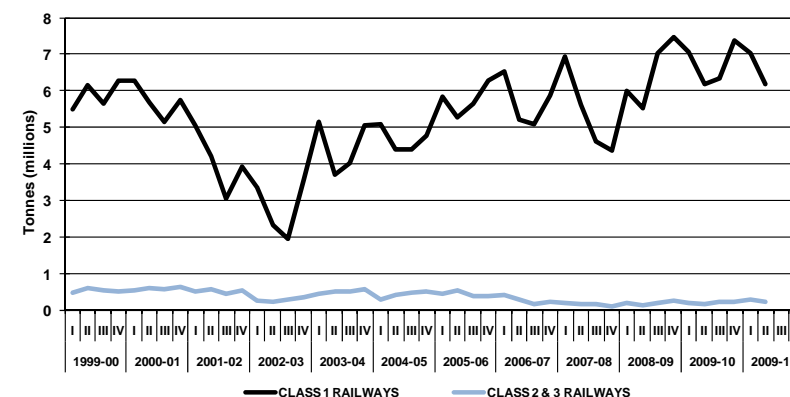


Figure 10: Hopper Car Shipments - Carrier Originations



### 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 12.9 million tonnes in the first six months of the 2010-11 crop year. This denoted a 3.4% increase from the 12.4 million tonnes handled in the same period a year earlier. [Table 2C-1]

Throughput increases were posted by two of the GHTS’s four western ports. For the largest of these, Vancouver, total marine shipments in the first half climbed by 9.1%, to 7.7 million tonnes from 7.0 million tonnes a year earlier. This represented 59.6% of the system’s total throughput. Running counter to this was Prince Rupert, where shipments fell by 14.0%, to 1.9 million tonnes from 2.2 million tonnes. When combined, the tonnage passing through these two west coast ports represented 74.5% of the overall total, a marginal gain over the 74.4% share garnered in the same period a year earlier.

Correspondingly, the modest gain noted for the west coast ports was reflected in a decline for the GHTS’s eastern gateway, with the combined share secured by the ports of Thunder Bay and Churchill falling marginally, to 25.5% from 25.6% a year earlier. Throughput at Thunder Bay fell by 1.0% in the first half, remaining effectively unchanged at 2.6 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 a year earlier.

### Terminal Elevator Unloads

The number of covered hopper cars unloaded at terminal elevators increased by 2.8% in the first half, to 144,483 cars from 140,481 cars a year earlier. Beyond this gain, there was also a pronounced shift between the number of cars unloaded by CN and CP. In the case of CN, the number of cars unloaded rose by 14.4%, to 78,437 from 68,589. Conversely, CP’s handlings during this period fell by 8.1%, to 66,046 cars from 71,892. This made CN the largest grain handler in western Canada, with an overall share of 54.3% against 45.7% for CP.

Figure 11: Terminal Elevator Throughput

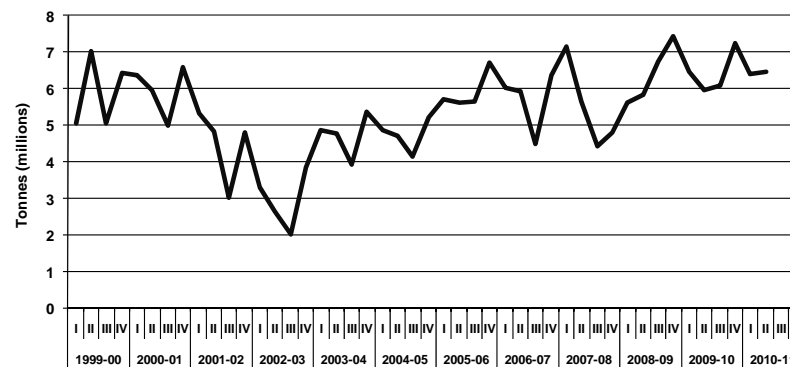
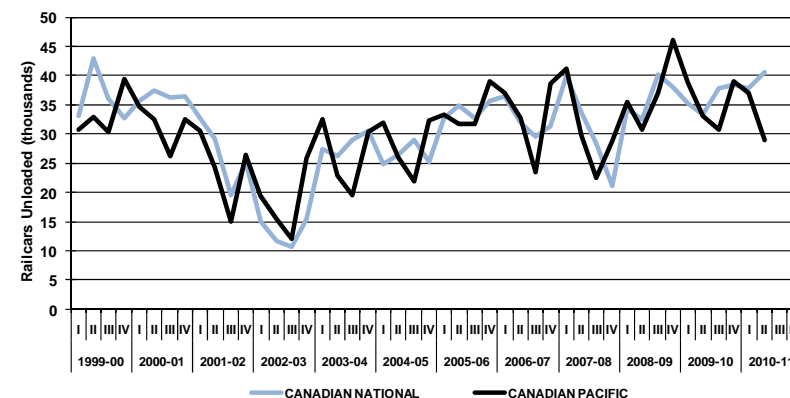


Figure 12: Terminal Elevator Unloads - Delivering Carrier



A more 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 58.3% in the second. This gain largely paralleled the steadily mounting frustration of shippers with the deterioration in CP's service since the beginning of the crop year, all of which had begun to funnel increasingly more grain into their CN-served elevators. These efforts at bypassing CP's service problems not only enhanced CN's market share but helped reshape west-coast movements as well.

The lesser role given to Prince Rupert in the first quarter, which saw shipments fall by 51.2%, were substantively reversed in the second as a result of the increased volumes given over to CN. By the close of the first half, this accretion had trimmed the port's year-over-year decline in volume to a much lesser 16.0%, with total unloads falling to 20,341 cars from the 24,222 cars recorded a year earlier.

This resurgence was largely aimed at helping to relieve the pressure that had been brought to bear on Vancouver, and which itself had witnessed an 8.3% increase in volume, unloading a GMP record of 87,551 cars in the first half. Despite its operational problems, CP still handled the majority of the traffic directed to Vancouver during this period, unloading 43,879 cars. But its handlings at the port declined by 11.8%, with its market share plummeting to 50.1% from 61.5% a year earlier. In comparison, CN's handlings into Vancouver rose to new heights, increasing by 40.5% to a GMP record of 43,672 cars unloaded.

Much the same forces were at work in movements through the GHTS's eastern gateways. At Thunder Bay, which saw handlings fall by 2.0%, to a total of 29,721 cars unloaded from 30,327 cars a year earlier, there was a less noticeable shift in market share. This was due in large measure to the fact that CP's operational problems were confined to movements in the Vancouver corridor. Nevertheless, CP posted a 5.5% reduction on its

handlings into Thunder Bay, which fell to 20,666 cars unloaded from 21,864 cars a year earlier.

Although less than the gain witnessed on its handlings into Vancouver, CN saw a 7.0% increase in its traffic to Thunder Bay, with the carrier's unloadings climbing to 9,055 cars from 8,463 cars a year earlier. This was complemented by a 34.0% rise in the carrier's handlings into Churchill, which reached a GMP record of 6,870 cars for the first half. [Table 2C-2]

## Section 3: Infrastructure

Indicator Description	Table	2010-11								
		1999-00	2008-09	2009-10	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Infrastructure</b>										
Delivery Points (number)	3A-1	626	273	274	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	1.4%
Elevators (number) - Province	3A-1									
Elevators (number) - Railway Class	3A-2	917	367	366	367	367	-	-	367	0.3%
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	-0.4%
Elevators Capable of MCB Loading (number) - Railway Line Class	3A-6									
Elevator Closures (number)	3A-7	130	30	21	11	11	-	-	11	-47.6%
Elevator Openings (number)	3A-8	43	18	20	12	12	-	-	12	-40.0%
Delivery Points (number) - Accounting for 80% of Deliveries	3A-9	217	89	90	n/a	n/a	-	-	n/a	n/a
<b>Railway Infrastructure</b>										
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	-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	-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	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	-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	-0.2%
Served Elevators (number)	3B-3	884	347	347	350	350	-	-	350	0.9%
Served Elevators (number) - Class 1 Carriers	3B-3	797	328	327	321	321	-	-	321	-1.8%
Served Elevators (number) - Non-Class-1 Carriers	3B-3	87	19	20	29	29	-	-	29	45.0%
Served Elevators (number) - Grain-Dependent Network	3B-3	371	113	118	117	117	-	-	117	-0.8%
Served Elevators (number) - Non-Grain-Dependent Network	3B-3	513	234	229	233	233	-	-	233	1.7%
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	1.6%
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	0.9%
Served Elevator Capacity (000 tonnes) - Non-Class-1 Carriers	3B-3	499.7	120.2	123.9	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	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	2.0%
<b>Terminal Elevator Infrastructure</b>										
Terminal Elevators (number)	3C-1	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	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. By the end of the 2009-10 crop year, that number had fallen by 63.5% to 366.<sup>3</sup> [Table 3A-1]

With a net gain of but one elevator in the first quarter, the first six months of the 2010-11 crop year produced little material change in the composition of the elevator network. Still, this raised the total number of elevators in western Canada to 367, with an accumulated loss of 637 facilities, or 63.4%, since the beginning of the GMP. The limited scope of the changes made in the last several years continues to suggest that most grain companies have concluded their elevator rationalization programs.

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 first quarter, with the overall number falling by one to 273, thus widening the net reduction in delivery points under the GMP to 60.1%.

### Provincial Distribution

With the close of the second quarter, 182 of western Canada's licensed elevators were situated in Saskatchewan. This constituted 49.6% 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 90 and 88 elevators each accounted for about another one-quarter. The GHTS's

<sup>3</sup> The reduction in licensed elevators cited here reflects the net change arising from elevator openings and closures over a given period.

Figure 13: Licensed Grain Elevators and Delivery Points

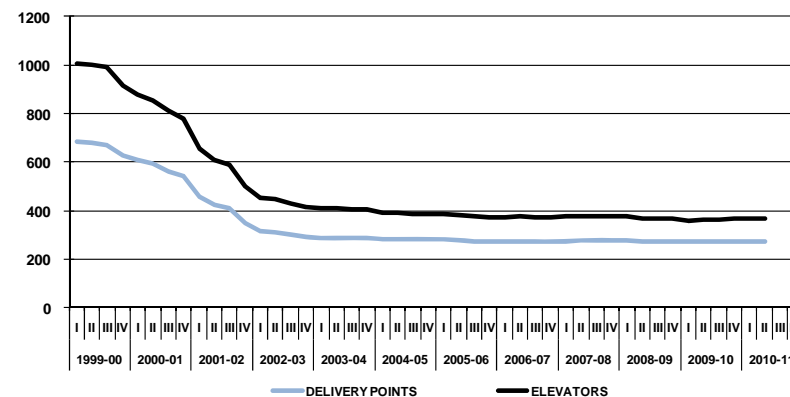
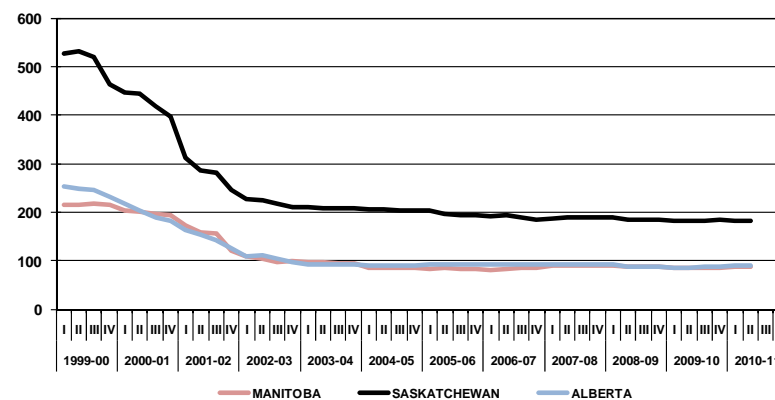


Figure 14: Licensed Grain Elevators - Provincial Distribution





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 162-elevator reduction posted by Alberta trailed only slightly, having fallen by 64.3% 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 a 63.4% decline in the overall number of elevators, the network's storage capacity fell by a comparatively modest 8.4%. 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. By the end of the 2003-04 crop year, total GHTS storage capacity had fallen by 19.0% to 5.7 million tonnes.

This trend began to reverse itself in the 2004-05 crop year when the system posted an increase of 157,000 tonnes. By the close of the 2009-10 crop year, the system's total storage capacity had gradually risen to over 6.3 million tonnes. Further expansion in the 2010-11 crop year resulted in another 91,400 tonnes of storage capacity being added by the close of second quarter. Although this constituted a 1.4% gain, it served to raise overall storage capacity to more than 6.4 million tonnes for the first time since the 2001-02 crop year.

Figure 15: Change in Licensed Elevators and Storage Capacity

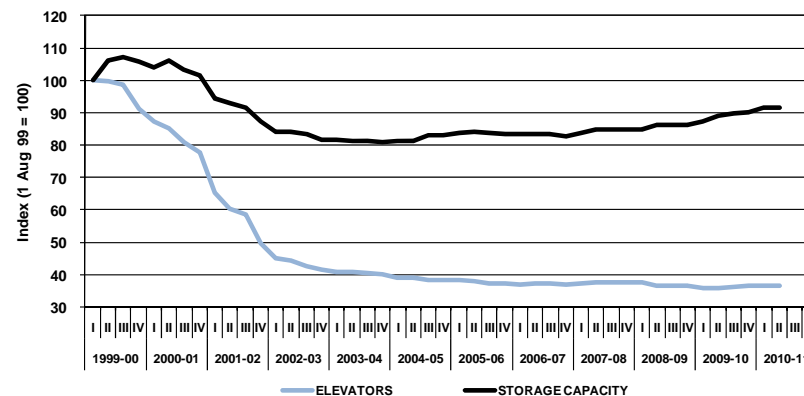
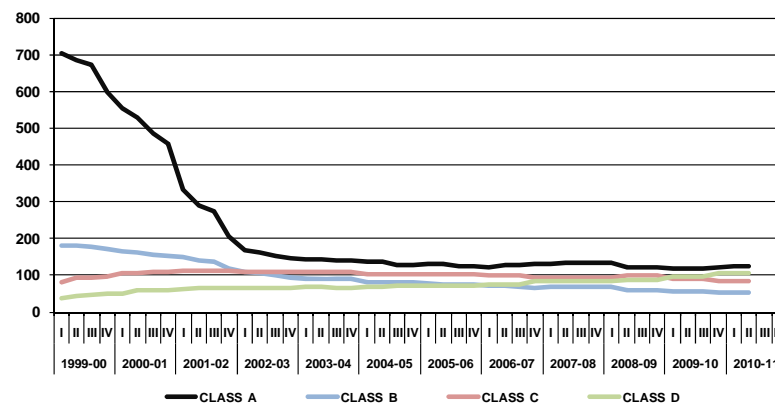


Figure 16: Licensed Elevators - Facility Class



## 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.<sup>4</sup> 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 4.9%, to 85 from 81, while the number of Class D facilities almost tripled, rising to 106 from 38.

These statistics illustrate that the primary target in elevator rationalization has been the conventional wood-crib facility. Of the 909 elevator closures recorded since the beginning of the GMP, 695 related to the shutdown of Class A facilities.<sup>5</sup> 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

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<sup>4</sup> 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.

<sup>5</sup> 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.

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 eliminated.<sup>6</sup> 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 92.6% of all recorded elevator closures. [Table 3A-7]

In contrast to their share of closures, only 157 of the 272 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, 42.3% versus 7.4% 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 since the 2000-01 crop year. By the close of the first half of the 2010-11 crop year, high-throughput facilities accounted for 52.0% of system elevators and 81.1% 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.

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<sup>6</sup> 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.

## Grain Companies

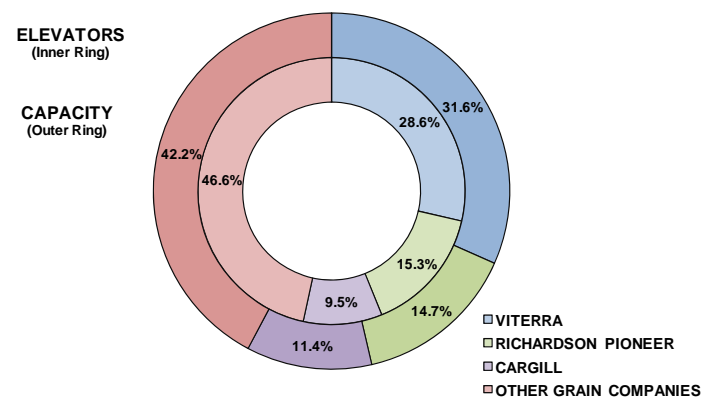
For a number of grain companies, the key to improving the economic efficiency of their grain-gathering networks has been to rationalize their elevator assets. With the cornerstone of this strategy being the replacement of smaller elevators by larger high-throughput facilities, it follows that this would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

In fact, the vast majority of the 637-elevator reduction posted through to the end of the first half of the 2010-11 crop year, encompassing 595 facilities, were attributable to the predecessors of today's Viterra Inc.<sup>7</sup> This constituted a net reduction of 85.0% in the company's facilities. Richardson Pioneer and Cargill posted the next deepest cuts, with elevator reductions of 46.7% and 40.7% respectively. This was complimented by Paterson Grain, with a 26.0% decrease, as well as Parrish and Heimbecker, with a 19.2% reduction.

Elevator closures have abated significantly since the creation of Viterra in 2007. Moreover, the total number of facilities actually began to rise after reaching a GMP low of 360 elevators in the first quarter of the 2009-10 crop year. However, much of the subsequent increase is misleading, since it largely reflects changes in the licensing requirements of the Canadian Grain Commission rather than in the actual addition of new elevators. Viterra figures prominently in this gain since a number of its previously unlicensed facilities have now been licensed.

<sup>7</sup> 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 total of 700 elevators at the outset of the GMP.

Figure 17: Licensed Elevators and Capacity - Q2 2009-10 Crop Year



In addition to controlling over half of the GHTS's elevators and storage capacity, Viterra, Richardson Pioneer 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. [Table 3A-3]

This concentration is also reflected in the way grain is gathered into the system, with the vast majority of the grain being collected through fewer than half of the GHTS's delivery points. In the 2009-10 crop year - the last for which statistics are available - about 80% of the grain drawn into the prairie elevator system was made at 90, or 40.5%, of the GHTS's 222 active delivery points. Although this share is somewhat greater than the 33.5% recorded in the GMP's base year, it suggests that the distribution in grain deliveries has not changed significantly in the face of a reduction in the elevator network itself. [Table 3A-8]

## RAILWAY INFRASTRUCTURE

At the beginning 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.<sup>8</sup> 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.<sup>9</sup> [Table 3B-1]

In addition to the reduction in overall mileage, there were other changes to the makeup of the railway network. 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 effectively 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

<sup>8</sup> 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.

<sup>9</sup> 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. As a result, the legally defined grain-dependent branch line network is continuously declining. 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.

Figure 18: Change in Route-Miles - Railway Class

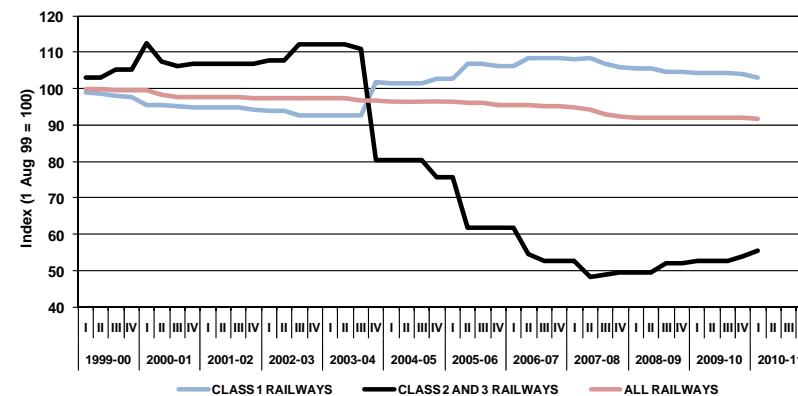
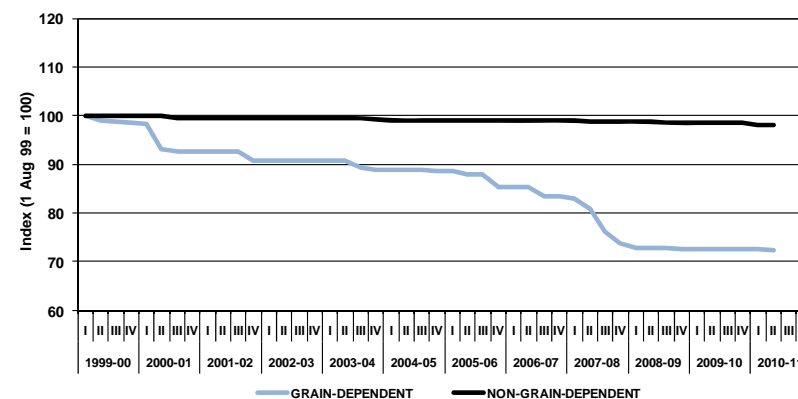


Figure 19: Change in Route-Miles - Railway Network



Class 2 carrier, BC Rail Ltd. In addition, the waning financial health of most shortline carriers led many to either sell or rationalize their own operations. This resulted in a number of shortline operations reverting back to the control of the Class 1 carrier that had spun them off in the first place. The most significant of these reversals came in January 2006 when RailAmerica Inc. sold most of its holdings in western Canada back to CN. This was followed later that same year by CN's reacquisition of what had evolved into the Savage Alberta Railway, and in late 2007, the Athabasca Northern Railway.

Many of these shortline operations 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 were dependent on the movement of grain, most shortline railways proved incapable of reshaping the economics that gave rise to the grain industry's broader elevator-rationalization programs. Although these smaller carriers could point to some success in attracting new business - much of which has been tied to increased producer-car loading - they could not prevent the grain companies from continuing to close the smaller elevators that remained critical to their commercial success. As a result of several ensuing business failures, the railway network under shortline management had contracted to a mere 2,244.0 by the middle of the 2007-08 crop year.

Despite this, the shortline railway 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 such operations had been established across the prairies. Most of these were based in Saskatchewan, where the provincial government proved more receptive to providing financial assistance.<sup>10</sup>

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10 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.

Although the creation of these new entities had a comparatively modest impact on the division between Class 1 and non-Class-1 infrastructure, the shortline network was again showing signs of expansion. By the close of the 2009-10 crop year another 257.0 route-miles had been added to their control, giving them a network of 2,501.0 route-miles.

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 track located southeast of Regina, Saskatchewan, and slated for discontinuance. Although the Tyvan subdivision generated little more than one hundred carloads of traffic annually, the line was considered particularly vital to the needs of Fill-More Seeds, which spearheaded the purchase effort.

This transfer was complemented by the removal of another 74.4 route-miles from the western Canadian network. 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.<sup>11</sup> 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. The abandonment effectively severed the route, leaving two grain-gathering branchlines: one extending westward from Saskatoon; and the other eastward from Calgary.

In December 2010 CN formally abandoned another 6.4-route-mile section of track that extended westward from Falher to Girouxville, in the Peace

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11 The abandoned section of CN's Oyen subdivision was situated almost at the centre of the Saskatoon-Calgary route, between mileage points 68.4 and 136.4, which extended westwards from Oyen, Alberta, to Hanna, Alberta.

River district of Alberta.<sup>12</sup> 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 worth of traffic annually, were relocated to sites in nearby Falher later that fall.

All of this resulted in comparatively modest changes to the face of the railway infrastructure in the first six months of the 2010-11 crop year, with the Class 1 network being reduced by 1.0%, to 15,249.5 route-miles, while the shortline network grew by another 3.2%, to 2,580.8 route-miles.

### Local Elevators

Despite the railway network's limited change over the course of the past twelve years, the number of elevators served by it has declined substantially. In broad terms, these facilities have decreased by 64.2% in number, to 350 from 979, and by 8.3% in terms of associated storage capacity, to 6.4 million tonnes from 6.9 million tonnes.<sup>13</sup>

But there were significant differences between the rates of decline in the elevator networks served by the Class 1 and non-Class 1 railways. Although the former initially declined more quickly than the latter, this pattern began to reverse itself about four years into the GMP. More importantly, the establishment of several new shortlines in recent years has actually prompted an increase in the number of elevators served by the non-Class 1 carriers.

12 The section abandoned extended from mileage points 274.3 to 280.7 of the carrier'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.

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

Figure 20: Change in Local Elevators - Railway Class

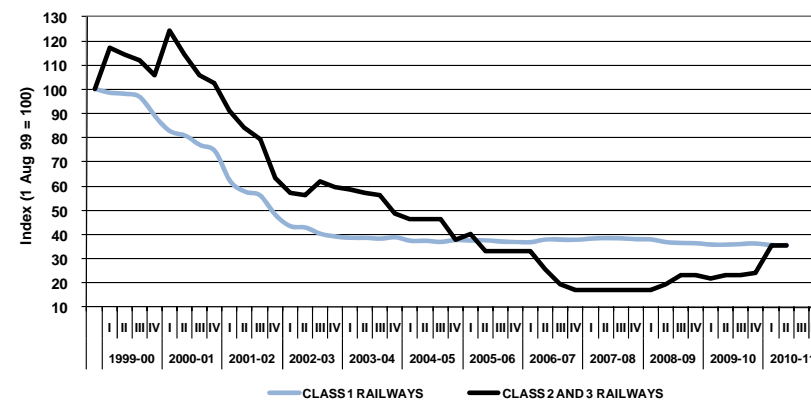
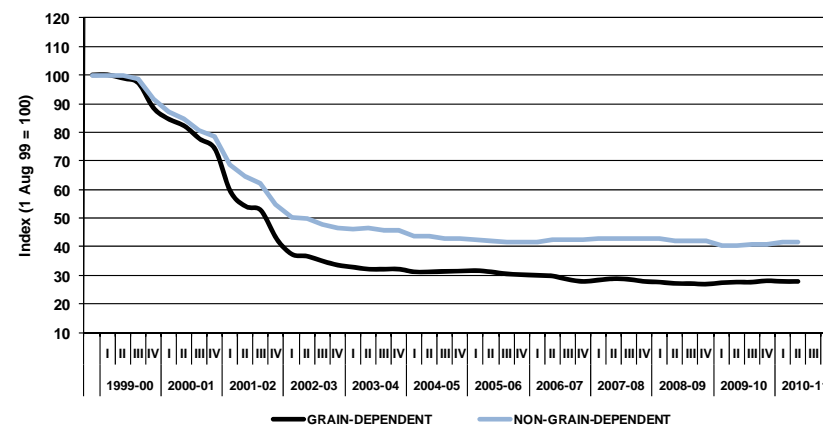


Figure 21: Change in Local Elevators - Railway Network



By the close of the first half of the 2010-11 crop year, the elevator networks served by both carrier groups had fallen by comparable amounts: 64.2% in the case of those served by the major carriers; and 64.6% in the case of those served by the shortline carriers. Still, there was a far more pronounced change in storage capacity: only 4.2% in the case of elevators local to Class 1 carriers versus 64.0% 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, and that they consciously decided to situate virtually all of their high-throughput elevators along the routes of both CN and CP.<sup>14</sup> [Table 3B-3]

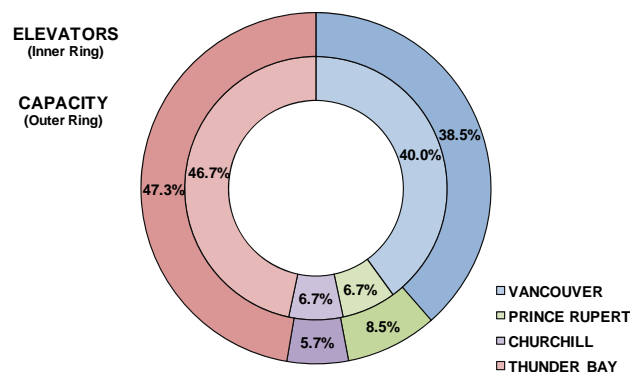
A more telling portrayal comes from examining the change in facilities local to both the grain-dependent, and non-grain-dependent, railway networks. Elevators situated along the grain-dependent network have fallen by 72.1% since the beginning of the GMP, to 117 from 420. In the case of those situated along the non-grain-dependent network, the decline was 58.3%, with the number of elevators having fallen to 233 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.

**TERMINAL ELEVATOR INFRASTRUCTURE**

There were no changes to the licensed terminal elevator network in the first six months of the 2010-11 crop year. As a result, it still comprised 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, which sat 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 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

14 As at 31 January 2011 95.8%, of the GHTS's 191 high-throughput elevators were served by CN and CP.

**Figure 22: Terminal Elevators - Q2 2010-11 Crop Year**



elevator apiece, and storage capacity shares of 8.5% and 5.7% respectively. [Table 3C-1]

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.<sup>15</sup> No changes in this regard have been recorded since 2007.

15 Those with the most direct bearing on terminal ownership involved the merger of Agricore Cooperative Ltd. and United Grain Growers Limited, which combined to form Agricore United in 2001, and the subsequent purchase of Agricore United by Saskatchewan Wheat Pool to form Viterra Inc. in 2007.





## Section 4: Commercial Relations

Indicator Description	Table	2010-11								
		1999-00	2008-09	2009-10	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Trucking Rates</b>										
Composite Freight Rate Index - Short-haul Trucking	4A-1	100.0	132.2	132.2	157.0	157.0	-	-	157.0	18.6%
<b>Country Elevators Handling Charges</b>										
Average Handling Charges - Country Delivery Points	4B-1									
<b>Railway Freight Rates</b>										
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
<b>Terminal Elevator Handling Charges</b>										
Average Handling Charges - Terminal Elevators	4D-1									
Terminal Handling Revenue (\$millions) - Vancouver	4D-2	\$192.7	\$284.8	\$320.6	n/a	n/a	-	-	n/a	n/a
Terminal Handling Revenue (\$millions) - Thunder Bay	4D-2	\$82.1	\$84.4	\$68.6	n/a	n/a	-	-	n/a	n/a
CWB Carrying Costs (\$millions) - Pacific Seaboard	4D-2	\$63.3	\$124.9	\$114.7	n/a	n/a	-	-	n/a	n/a
CWB Carrying Costs (\$millions) - Thunder Bay	4D-2	\$31.3	\$45.2	\$33.0	n/a	n/a	-	-	n/a	n/a
<b>Tendering Program</b>										
Tenders Called (000 tonnes)	4E-1	n/a	3,416.2	2,431.4	1,438.5	571.4	-	-	2,009.9	44.1%
Tender Bids (000 tonnes)	4E-3	n/a	5,622.1	4,969.6	1,499.8	3,116.3	-	-	4,616.1	70.5%
Total CWB Movements (000 tonnes)	4E-5	n/a	15,612.8	15,175.0	3,563.2	2,919.9	-	-	6,483.1	-14.3%
Tendered Movements (%) - Proportion of Total CWB Movements	4E-5	n/a	14.4%	16.4%	18.9%	11.1%	-	-	15.4%	-14.4%
Tendered Movements (000 tonnes) - Grain	4E-5	n/a	2,246.6	2,495.2	673.2	325.2	-	-	998.4	-26.6%
Average Tendered Multiple-Car Block Size (railcars) - Port	4E-17	n/a	59.7	64.8	53.2	64.2	-	-	56.8	-10.3%
Railway Car Cycle (days) - Tendered Grain	4E-18	n/a	11.8	11.1	14.3	12.3	-	-	13.1	21.3%
Railway Car Cycle (days) - Non-Tendered Grain	4E-18	n/a	13.0	13.1	13.4	14.7	-	-	14.1	6.0%
Maximum Accepted Tender Bid (\$ per tonne) - Wheat	4E-19	n/a	-\$23.01	-\$21.28	-\$21.87	-\$25.02	-	-	-\$25.02	17.6%
Maximum Accepted Tender Bid (\$ per tonne) - Durum	4E-19	n/a	-\$14.95	-\$23.56	-\$11.07	-\$5.08	-	-	-\$11.07	-47.6%
Market Share (%) - CWB Grains - Major Grain Companies	4E-20	n/a	72.9%	74.3%	76.6%	71.1	-	-	74.0%	-0.8%
Market Share (%) - CWB Grains - Non-Major Grain Companies	4E-20	n/a	27.1%	25.7%	23.4%	29.0	-	-	26.0%	2.4%
<b>Advance Car Awards Program</b>										
Advance Award Movements (%) - Proportion of Total CWB Movements	4F-1	n/a	12.1%	10.8%	6.4%	14.0%	-	-	9.9%	5.3%
Advance Award Movements (000 tonnes) - Grain	4F-1	n/a	1,896.5	1,633.3	228.7	409.9	-	-	638.6	-9.9%
Railway Car Cycle (days) - Advance Award Grain	4F-6	n/a	12.2	12.3	12.3	13.9	-	-	13.4	9.8%

## 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 supported by a heightened demand for carrying capacity, which allowed service providers a greater degree of latitude in passing these costs onto grain producers.

Despite the collapse in crude oil prices that came in the latter half of 2008, the rates applicable on the short-haul movement of prairie grain by truck remained largely unchanged for the next two years. However, these rates moved sharply higher in the first quarter of the 2010-11 crop year, driven in large measure by a resurgence in oil prices and sustained by the continuing demand for commercial carrying capacity. As a result, the composite price index for short-haul trucking rose by 18.8%, to 157.0 from 132.2. With no changes recorded in the second quarter, the index's value remained unaltered at 157.0. [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, reflecting not only the different services offered, but the diversity of grains involved as well as the province in which the service is provided.

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 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 price changes in the first six months of the 2010-11 crop year produced a net reduction of 1.0% in the index's

Figure 23: Change in Composite Freight Rates - Short-Haul Trucking

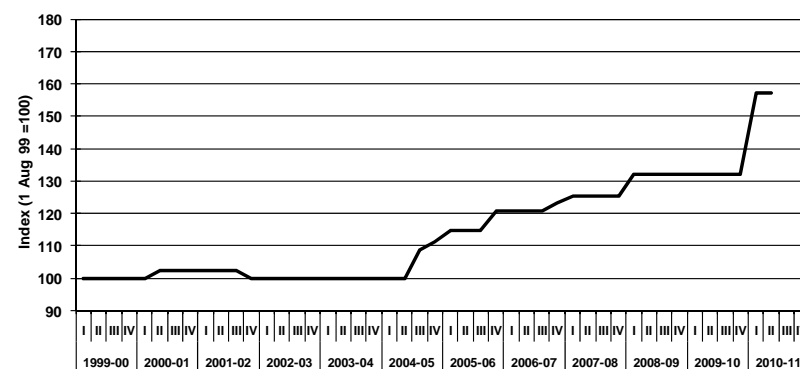
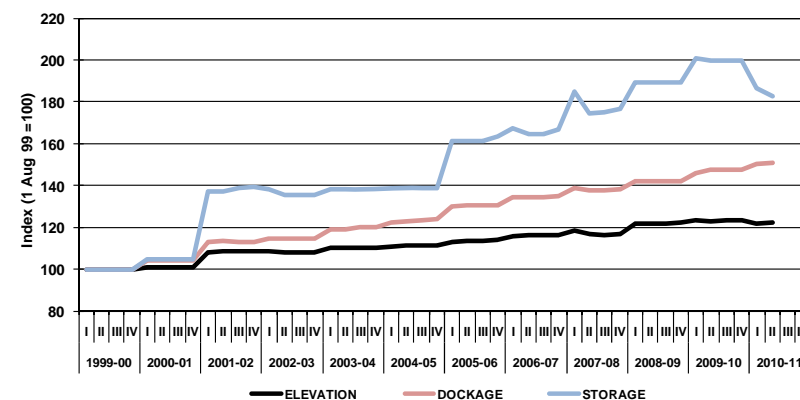


Figure 24: Change in Primary Elevator Handling Charges



value, which brought the cumulative increase recorded since the beginning of the GMP to 22.1%.

The rates associated with the removal of dockage have increased at a faster pace. Through to the end of the 2009-10 crop year, these rates had already increased by 47.3%. With the close of the second quarter, the composite price index had risen another 2.4%, bringing the cumulative increase to 50.9%.

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. However, the first six months of the 2010-11 crop year saw a rollback in many of the rates applicable on the storage of non-CWB commodities, which produced an 8.5% reduction in these costs, and lowered the cumulative increase since the beginning of the GMP to 82.6%. [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]

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 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

Figure 25: CN Single-Car Freight Rates - Primary Corridors

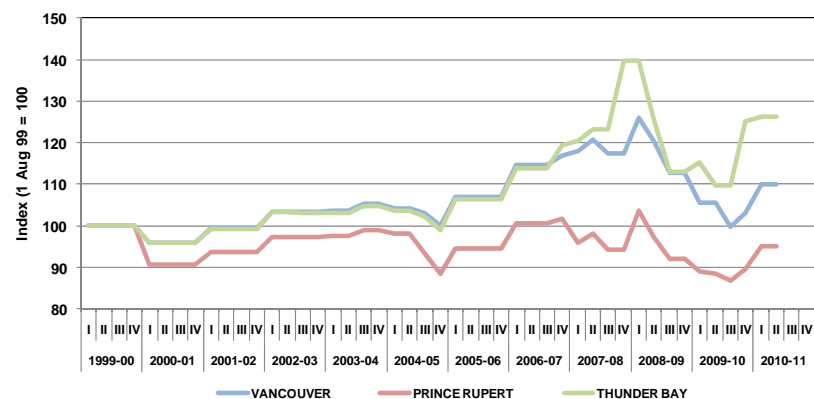
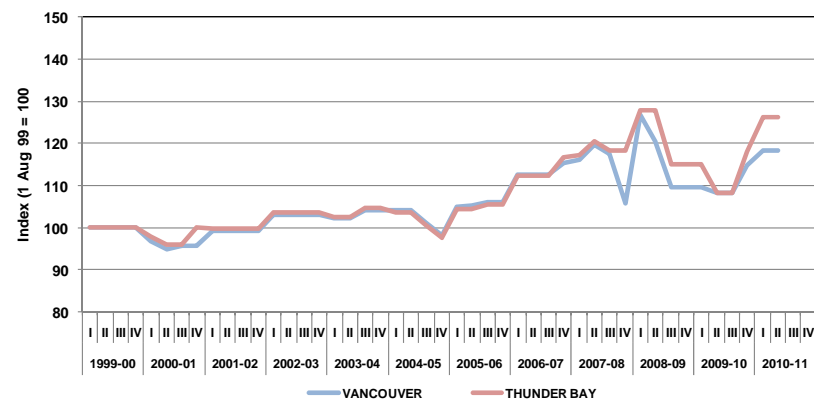


Figure 26: CP Single-Car Freight Rates - Primary Corridors



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 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 the rate adjustments applied against grain moving to Churchill.<sup>16</sup>

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 reductions. By 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%.

Since neither carrier brought forward changes in the second quarter, this rate structure remained unaltered through to the end of January 2011.

### 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 first six months of 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]

### TERMINAL ELEVATOR HANDLING CHARGES

The rates posted by terminal elevators for the receiving, elevating and loading out of grain represent their most costly. 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 locations in the first half of 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

<sup>16</sup> Single-car rates to Churchill have been published in accordance with the port's operating season since the 2008-09 crop year, and are typically not issued in the second and third quarters.

commodities held at Churchill to a high of \$0.15 per tonne on oats maintained in inventory at Vancouver. With the exception of Churchill, which chose to extend its storage rates for another shipping season, these costs all moved generally higher in the first half. Thunder Bay reported the largest escalation, with an overall increase of about 3.1%. This was followed by Prince Rupert with increases averaging 2.5%, and a 2.4% increase for terminals operating in Vancouver. These actions served to raise the composite price index on storage by a further 2.0%, bringing the cumulative rise since the beginning of the GMP to 46.4%.

### TENDERING PROGRAM

The 2010-11 crop year denoted the tenth 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 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 109 tenders calling for the shipment of approximately 2.0 million tonnes of grain in the first six months of the 2010-11 crop year. This represented a 44.1% increase over the 1.4 million tonnes put out to tender in the same period a year earlier. Unlike previous years, the majority of this tonnage, 59.5%, related to the movement of barley. This entailed a potential movement of 1.2 million tonnes, approximately six times what had been called a year earlier. Wheat ranked second in terms of overall size, with calls for 709,800

Figure 27: Change in Terminal Elevator Handling Charges

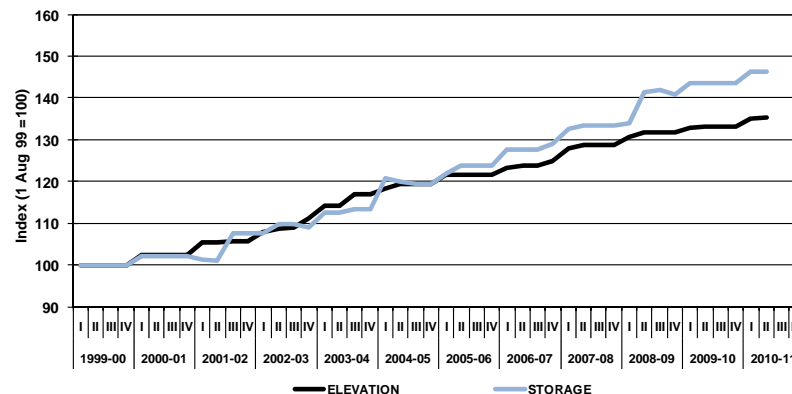
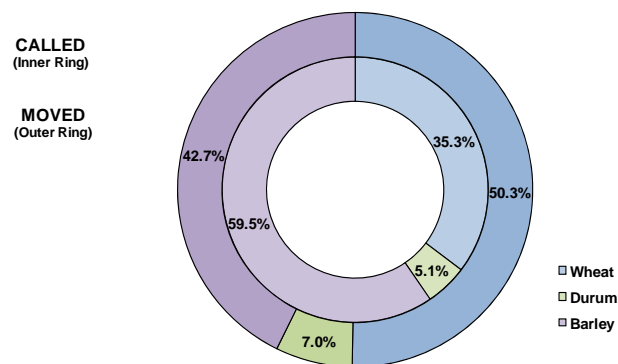


Figure 28: Tended Grain - Q2 2010-11 Crop Year



tonnes having been issued. This denoted 35.3% of the overall total compared to 72.6% the year previous. Durum calls, which fell to a 5.1% share from the 12.9% share seen a year earlier, encompassed a mere 103,500 tonnes.

The CWB sought to move the majority of the grain, representing 91.7% of the tonnage called, through the west coast ports of Vancouver and Prince Rupert. This was well ahead of the 78.9% share given over to these ports a year earlier, with both posting gains. Vancouver reported the largest increase, with its share rising to 43.5% from the previous crop year's 33.2%, while Prince Rupert's share inched up to 48.2% from 45.7%. As a result of the west coast's increased allocation, Thunder Bay showed a substantial reduction, taking a 7.8% share against 21.1% a year earlier. This was complemented by Churchill, which owing to the first tenders issued in its favour in six years, garnered a 0.4% share. [Tables 4E-1 and 4E-2]

### Tender Bids

The CWB's tender calls were met by 339 bids offering to move 4.6 million tonnes of grain, more than twice the amount sought. The majority of these bids, 73.0%, responded to calls for the movement of barley. Another 24.3% responded to those issued for wheat, while the remaining 2.7% answered those for durum. When examined with respect to the port specified in the tender calls, 70.4% of the bids were directed to Prince Rupert, 24.1% to Vancouver, 5.0% to Thunder Bay, and 0.4% 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 first half proved much weaker than in the same period a year earlier. Moreover, the response rate given over to barley, which posted a ratio of 2.8 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 19.2%, to 1.6 from 2.0 a year earlier. The decline

Figure 29: Tonnage-Bid-to-Called Ratio - Q2 2010-11 Crop Year

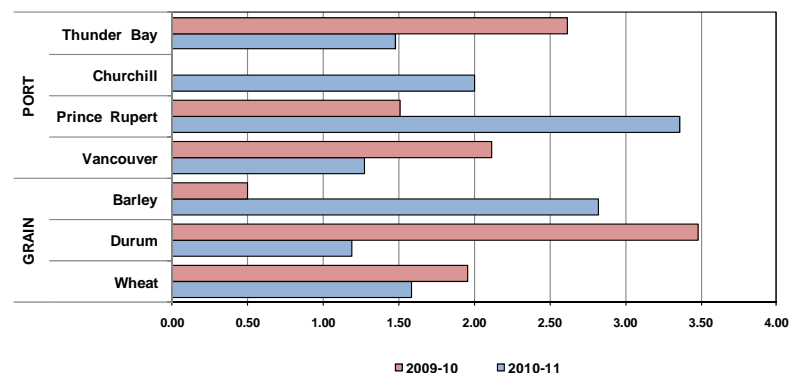
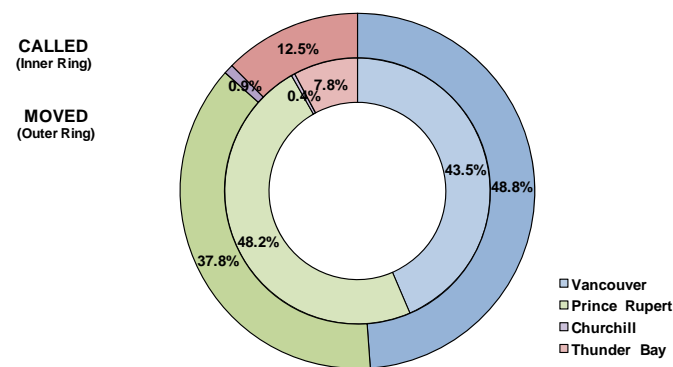


Figure 30: Destination Port - Q2 2010-11 Crop Year



in the response rate on durum tenders was even more sizeable, with a reduction of 65.8% lowering the associated ratio to 1.2 from 3.5.

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 3.4 from 1.5. 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 Thunder Bay proved the next strongest, although it was cut by 43.5%, falling to 1.5 from 2.6 a year earlier. The response rate for Vancouver fell by almost as much, 39.8%, to 1.3 from 2.1.

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 precipitated a corresponding alteration in the maximum discount put forward by the grain companies in their bids. By way of example, the maximum bid put forward on barley shot up to \$20.00 per tonne from just \$4.00 per tonne a year earlier. In equal measure, the highest accepted bid on durum was virtually cut in half, falling to \$11.07 per tonne from \$21.76 per tonne.

### Contracts Awarded

A total of 139 contracts were subsequently signed for the movement of 1.0 million tonnes of grain.<sup>17</sup> This marked a reduction of 362,500 tonnes from the 1.4 million tonnes awarded a year earlier. In its broader context, this denoted 15.4% of the tonnage shipped by the CWB to western Canadian ports in the first six months of 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, 48.8% 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 37.8% 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 12.5% and 0.9% respectively.

### Malting Barley

Owing to poorer quality, no tenders were issued by the CWB for the movement of malting barley in the first six months of 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 in the first half were sold on an "in-store" basis. [Table 4E-9]

### Originating Carrier

CN secured 60.4% of the volume that moved under tender in the first half. This denoted a significant gain over the 41.6% share the carrier moved in the same period a year earlier. Much of this gain reflected the sway given over to barley as a result of the large volumes being directed to Prince Rupert by the CWB during this period. 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]

### 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 first half of the 2010-11 crop year, when 88.3% of tendered grain shipments moved in such blocks. Still, this value fell marginally below the 91.4% value recorded in the same period a year earlier. Indicative of this weakening was the fact that shipments in blocks of 50 or more cars assumed a lesser role in the first half, garnering a 57.0% share against 70.1% a year earlier. [Table 4E-12]

<sup>17</sup> The volumes cited as moving under the CWB's tendering program also extend to tendered malting barley - which is administered independent of other tendered CWB grains.

### Tendered Origins

With 459,900 tonnes of grain shipped in the first half, Alberta was the largest originator of tendered grain in western Canada, increasing its share to 46.1% from 35.7% a year earlier. Much of this gain was due to a reduction in shipments from Saskatchewan, which accounted for another 436,100 tonnes, and claimed a 43.7% share against a 51.7% the year previous. This was followed by Manitoba, which originated 100,500 tonnes and saw its share fall to 10.1% from 12.0% a year earlier.

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 97.6% in the 2008-09 crop year. Results from the first half were consistent with this, with 95.8% of the tendered grain movement having originated at high-throughput elevators. [Table 4E-14]

### Car Cycles

The average car cycle for tendered grain shipments increased sharply in the first six months of the 2010-11 crop year, rising 21.3%, to 13.1 days from the 10.8-day average recorded in the same period a year earlier. Unquestionably, this marked a significant reversal in a longer-term pattern of reduction, and proved to be particularly pronounced in the Vancouver corridor. However, this increase appeared to reflect the growing operational problems that CP had been grappling with since the beginning of the crop year. [Table 4E-18]

Although the first quarter produced some anomalous results, by the close of the first half the traditional relationship between tendered and non-tendered CWB grain shipments appeared to have been restored. Here too, the average on non-tendered CWB shipments had also risen, to 14.1 days from 13.3 days a year earlier. Although these results showed that the car cycle for tendered grain had once again fallen below that of non-tendered CWB grain, their respective increases suggest that both segments were affected by the degradation in railway service.

Figure 31: Tendered Grain - Originations

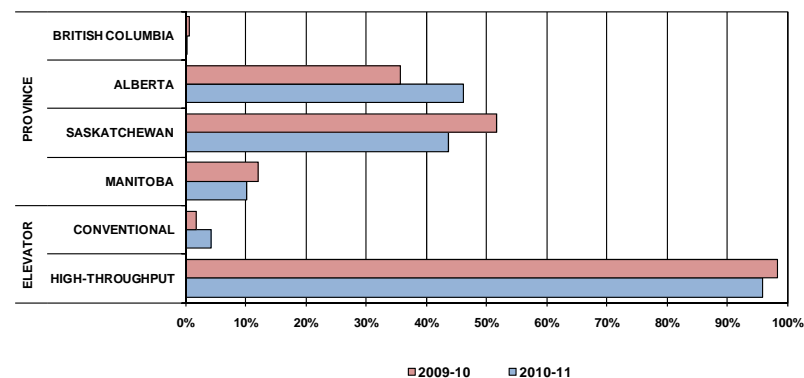
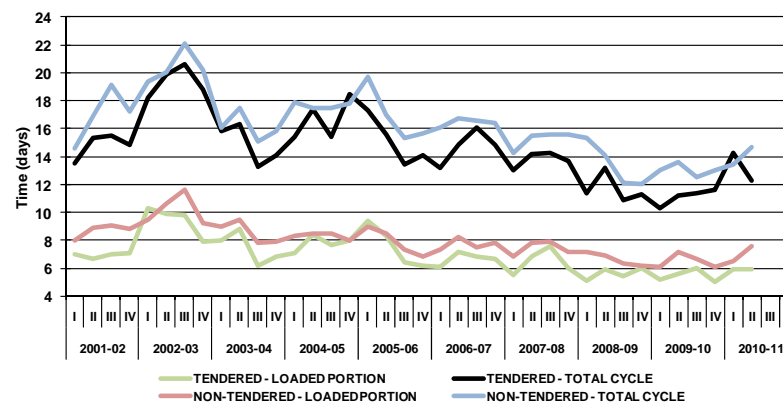


Figure 32: Car Cycles - Tendered and Non-Tendered Grain





### 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 highest bid put forward.<sup>18</sup> 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.<sup>19</sup>

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. Moreover, the deepest discounts have often manifested themselves early in the crop year, with a gradual easing following thereafter. [Table 4E-19]

The maximum discounts advanced for wheat in the first half were consistent with these observations but showed substantially more strength in the second quarter. The maximum bid during this period increased by 17.6%, rising to \$25.02 per tonne from \$21.28 per tonne a year earlier. However, this differed markedly from what was observed with respect to the other CWB grains. Although the maximum discount on durum fell to \$11.07 per tonne in the first quarter, it slumped to an even lower \$5.08 per tonne in the second. The reduced pressure on barley saw the maximum discount slip from a record \$20.00 per tonne in the first quarter to a more moderate \$16.37 per tonne in the second.

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

19 As used here, the term “major grain companies” refers specifically to Viterra Inc., Cargill Limited and Richardson Pioneer Limited. These companies effectively constitute the three largest firms sourcing grain within western Canada.

Figure 33: Maximum Discount from Initial Price - Wheat

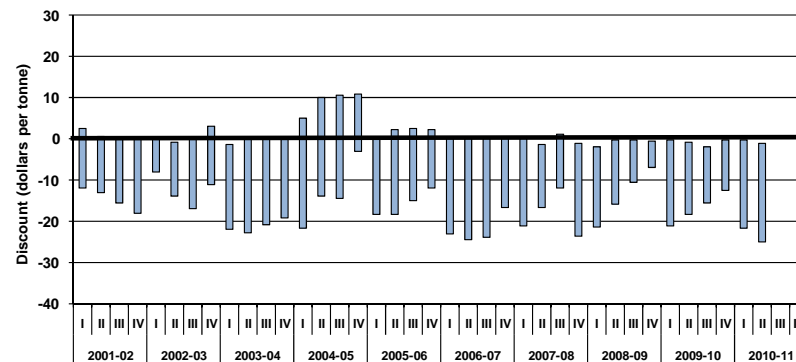
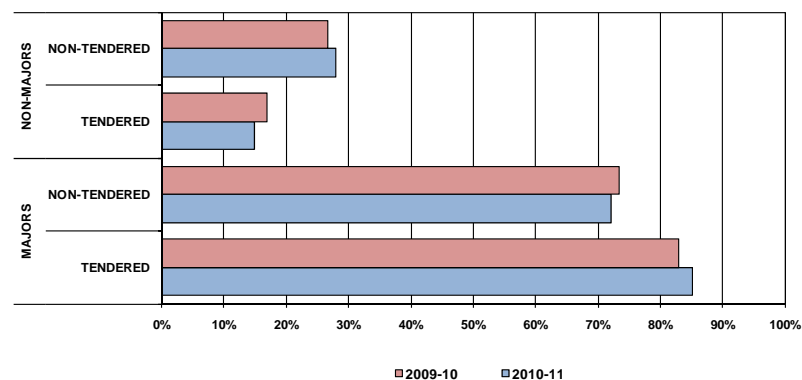


Figure 34: Market Share - Q1 2010-11 Crop Year



## 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, they have taken 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 approximately 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 first six months of the 2010-11 crop year were consistent with these broad measures, amounting to 85.1% and 14.9% respectively in the case of tendered grain shipments, and to 72.1% and 27.9% respectively in the case of non-tendered grain shipments. Despite this, it is worth noting that the major grain companies secured an unusually greater share of tendered grain shipments in the second quarter, claiming a 94.7% share against just 5.3% for the non-major grain companies.

## Financial Savings

Although the discounts advanced by the grain companies figure prominently in the calculation of the CWB's overall transportation savings, they are but one component. Freight and terminal rebates, as well as any financial penalties for non-performance, also figure into this calculation. For the first six months of the 2010-11 crop year, the CWB estimated that these savings - which are ultimately passed back to producers through its pool accounts - totalled \$19.3 million. This proved to be 4.3% greater than the \$18.5 million saved in the same period a year earlier.

## ADVANCE CAR AWARDS PROGRAM

A total of 638,600 tonnes moved under the CWB's advance car awards program in the first six months of the 2010-11 crop year, a reduction of 9.9% from the 708,800 tonnes moved in the same period a year earlier. This denoted 9.9% of the total tonnage shipped to the four ports in western Canada by the CWB, and a modest increase over the 9.4% share garnered a year earlier.

In conjunction with the 998,400 tonnes that moved under the CWB's tendering program, a total of 1.6 million tonnes of CWB grain were moved under the auspices of these two programs. This constituted 25.3% of the CWB's total grain shipments to the four ports in the first half. These shipments fell considerably short of the 40% that had been targeted, and moderately below the 27.4% that had been handled under these programs a year earlier.

## 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 first half, these differences proved even more pronounced. Foremost among these was the fact that wheat represented 73.7% of the tonnage shipped as compared to 50.3% of tendered grain shipments. The remaining 26.3% was given over to durum, whereas this commodity constituted just 7.0% of tendered grain shipments. [Table 4F-1]

The largest portion of the volume that moved under the advance car awards program, 293,300 tonnes, or 45.9%, was destined to the port of Vancouver. This was in turn followed by Thunder Bay with 180,600 tonnes, and a 28.3% share; and Prince Rupert with 164,800 tonnes, and a 25.8% share. In addition to the more prominent second-place role given to Thunder Bay, it is worth noting that no traffic was directed to Churchill during this period. [Table 4F-2]

### Originating Carrier

Well over two-thirds, 69.8%, of the volume moved under the advance car awards program in the first half originated at points local to CP. Although this was consistent with the 65.5% share the carrier secured in the same six-month period a year earlier, it far exceeded the 39.4% share garnered by CP on the movement of tendered grain. Moreover, it was atypical for a carrier that had secured a reduced 45.7% share on the overall movement of western Canadian grain. [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 345,100 tonnes, these shipments accounted for slightly more than half, 54.0%, of the program's total volume. This share, however, proved markedly greater than the 43.7% share secured by the province on the movement of tendered grain. Alberta and Manitoba followed with corresponding originations of 224,700 tonnes and 67,500 tonnes, and shares of 35.2% and 10.6% respectively. Just 1,200 tonnes of grain was moved from British Columbia in the first half. [Table 4F-4]

Virtually all of the grain shipped under the advance car awards program in the first half, 98.8%, came from high-throughput elevators. This proved even greater than the 94.4% share secured by these facilities in the same period a year earlier. There was little to differentiate the usage rates for these elevators on a provincial basis save for the fact that only shipments from British Columbia originated at conventional facilities.

### Car Cycles

The average car cycle for grain shipped under the CWB's advance car awards program totalled 13.4 days in the first six months of the 2010-11 crop year. This value proved to be 9.8% greater than the 12.2-day average recorded in the same period a year earlier, as well as 2.3% greater than the 13.1-day average given over to tendered grain shipments. As with tendered grain, however, the average cycle for advance-car-award

Figure 35: Traffic Composition - Q2 2010-11 Crop Year

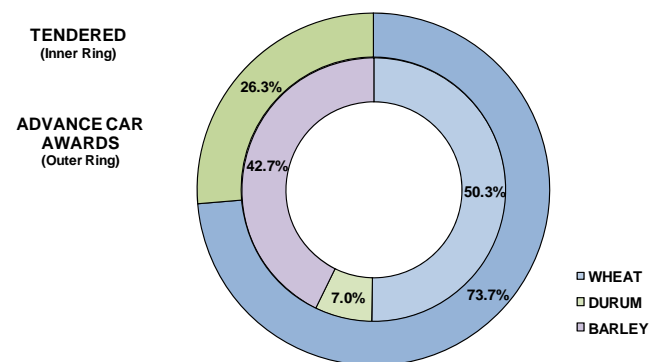
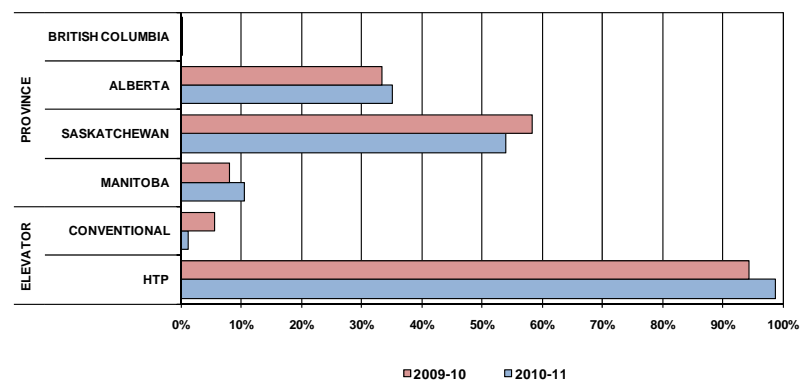


Figure 36: Advance Car Awards - Originations



movements proved lower than that of non-tendered CWB grain, with the latter averaging a notably longer 14.1 days. [Table 4F-6]

This relationship was also reflected in the loaded portion of the movement, with the advance-car-award program's 6.7-day average proving 13.6% above the 5.9-day average for tendered grain shipments. The reverse was true, however, of the empty movement. Here the 6.7-day average on advance-car-award movements fell well below the 7.2 days given over to tendered grain.

## COMMERCIAL DEVELOPMENTS

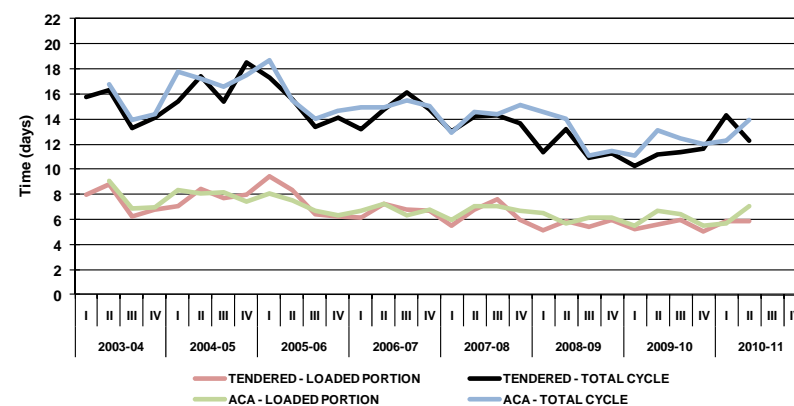
### Interim Report on Rail Freight Service Review

In response to 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 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,

Figure 37: Car Cycle - Advance Car Awards



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 erratic nature of existing railway service, but also argued for stronger regulatory measures as a means of tempering what was still widely regarded as the monopolistic power of the railways.

In early October 2010 the panel released its interim report. In essence, the report asked for commentary on its key recommendations, which stipulated that: the railways should continue to develop commercial measures to improve rail service; that the railways should enter into good-faith negotiations with shippers to establish service agreements; and that Transport Canada should assist the railways in developing a fair and balanced dispute-resolution process with its customers. Further, the interim report suggested that the government should move forward with the drafting of legislation that could serve as a backstop if the industry failed to resolve its service issues by 2013.

These recommendations were met with diverse responses. Many in the grain industry expressed disappointment, claiming that the report

effectively advocated waiting another three to five years before the government did anything to address its concerns. The railways, conversely, argued that the recommendations were going too far down the road towards a possible reregulation of their industry. By the close of the second quarter, however, the panel's final report had yet to be released.

Against this backdrop, many in the grain industry had begun to voice frustration with a recent deterioration in railway service. Most of these complaints focused on CP, whose operations remained problematic in the aftermath of a June 2010 washout of its mainline east of Medicine Hat, Alberta.<sup>20</sup> Compounding these problems were those that grew out of the carrier's prior decision to put an end to the practice of "early quits" in its Vancouver terminal.<sup>21</sup> 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.

To make matters worse, CP had to begin grappling with an unusually heavy accumulation of snow in the Rockies, which precipitated avalanches and control measures that repeatedly disrupted railway operations between December 2010 and January 2011. This served only

20 Heavy rains in southeastern Alberta and southwestern Saskatchewan resulted in a washout of CP's Maple Creek subdivision at mileage 128.0, a point situated between Irvine and Pashley, Alberta, which closed the carrier's transcontinental mainline for several days. Flooding occasioned by these rains also closed the Trans Canada Highway between Medicine Hat, Alberta, and Swift Current, Saskatchewan, and forced the evacuation of several towns in the region.

21 The term "early quits" refers to the unwritten understanding between the railway's management and its running trade employees concerning what they may do upon the completion of their work assignment. These employees typically have a defined set of physical tasks to perform within their normal eight-hour work shift (e.g. switching a series of customers in a specified geographic area). If, however, the crew managed to complete its assigned tasks before the time allotted for it had lapsed, then their work assignment was deemed to have been completed and they were given the right to go home early. This means that a crew finishing its assigned work in half the time allowed could become entitled to the benefits of a full-day's wage in exchange for just four hours of actual work. Although the practice harkens back to the earliest days of railroading, modern carrier management now frowns upon its use. CN moved to stop the practice itself several years earlier.

to compound the delays and car-supply problems that had already been plaguing shippers since the beginning of the crop year. Moreover, they had already begun to spread to other parts of the supply chain. Grain movements out of the country were reduced as CP's car supply became more constricted. This occasioned delays to ships awaiting the arrival of CP grain trains at Vancouver. And what had earlier been shipper frustration now began to give way to anger as the financial burdens from vessel demurrage began to reach unprecedented levels. All of this added to the industry's ire, and which pointed to the situation as evidence of the need for more effective regulatory measures.

### Customs Duty Relief Hold 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 economically more efficient ships.

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,

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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, both of whose customers would benefit from lower shipping and ferry rates.

The announcement was welcomed by the Canadian Wheat Board which 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 laker 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 savings for western Canadian farmers, who ultimately bear a significant portion of the higher costs associated with operating the older and less efficient 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 Nantong Mingde Heavy Industries, a Chinese shipyard, for the construction of four new dry bulk lake freighters, along with an option to purchase two more. The \$205-million investment was intended to provide for the replacement of vessels already approaching the end of their economic lives beginning in 2013.

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## Section 5: System Efficiency and Performance

Indicator Description	Table	2010-11								
		1999-00	2008-09	2009-10	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Operations</b>										
Average Elevator Capacity Turnover Ratio	5A-1	4.8	6.6	6.2	1.4	1.4	-	-	2.8	-7.3%
Average Weekly Elevator Stock Level (000 tonnes)	5A-2	3,699.3	2,686.7	2,832.6	2,698.3	2,878.9	-	-	2,785.0	-4.9%
Average Days-in-Store (days)	5A-3	41.7	27.7	30.5	30.1	33.9	-	-	31.9	-3.6%
Average Weekly Stock-to-Shipment Ratio - Grain	5A-4	6.2	3.9	4.3	4.3	4.7	-	-	4.5	-2.2%
<b>Railway Operations</b>										
Railway Car Cycle (days) - Empty Movement	5B-1	10.7	6.6	6.7	7.2	7.2	-	-	7.2	9.5%
Railway Car Cycle (days) - Loaded Movement	5B-1	9.2	6.8	6.5	6.8	7.5	-	-	7.2	8.2%
Railway Car Cycle (days) - Total Movement	5B-1	19.9	13.4	13.2	14.0	14.7	-	-	14.3	8.7%
Railway Car Cycle (days) - Non-Special Crops	5B-2	19.3	13.3	13.1	13.9	14.6	-	-	14.2	9.6%
Railway Car Cycle (days) - Special Crops	5B-3	25.8	15.6	15.3	14.6	16.1	-	-	15.2	-3.4%
Railway Transit Times (days)	5B-4	7.8	5.5	5.5	5.7	6.3	-	-	6.0	7.9%
Hopper Car Grain Volumes (000 tonnes) - Non-Incentive	5B-5	12,718.7	5,674.4	5,747.7	2,047.4	1,202.4	-	-	3,250.6	1.6%
Hopper Car Grain Volumes (000 tonnes) - Incentive	5B-5	12,945.9	21,118.2	22,030.1	5,255.8	5,200.1	-	-	10,455.9	0.6%
Hopper Car Grain Volumes (\$ millions) - Incentive Discount Value	5B-6	\$31.1	\$132.0	\$146.4	\$34.6	\$35.4	-	-	\$70.0	0.3%
Traffic Density (tonnes per route mile) - Grain-Dependent Network	5B-7	442.5	527.3	608.5	644.8	532.3	-	-	588.6	-2.9%
Traffic Density (tonnes per route mile) - Non-Grain-Dependent Network	5B-7	292.5	335.2	332.5	350.1	315.5	-	-	332.8	3.2%
Traffic Density (tonnes per route mile) - Total Network	5B-7	330.4	373.8	387.9	409.5	359.1	-	-	384.3	1.3%
<b>Terminal Elevator Operations</b>										
Average Terminal Elevator Capacity Turnover Ratio	5C-1	9.1	10.0	10.0	n/a	n/a	-	-	n/a	n/a
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	-	-	1,224.2	-4.4%
Average Days-in-Store - Operating Season (days)	5C-3	18.6	16.7	16.2	18.5	16.1	-	-	17.3	-13.9%
<b>Port Operations</b>										
Average Vessel Time in Port (days)	5D-1	4.3	4.6	6.2	7.1	10.2	-	-	7.1	38.7%
Annual Demurrage Costs (\$millions)	5D-4	\$7.6	\$11.2	\$11.2	n/a	n/a	-	-	n/a	n/a
Annual Dispatch Earnings (\$millions)	5D-4	\$14.5	\$37.6	\$17.2	n/a	n/a	-	-	n/a	n/a
Avg. Weekly Stock-to-Vessel Requirements Ratio - VCR - Wheat	5D-5	3.1	3.2	2.3	2.6	2.6	-	-	2.6	10.0%
Avg. Weekly Stock-to-Vessel Requirements Ratio - VCR - Canola	5D-5	2.5	1.5	1.5	0.5	0.3	-	-	0.4	-75.6%
Avg. Weekly Stock-to-Vessel Requirements Ratio - TBY - Wheat	5D-5	5.6	4.5	5.3	5.5	4.9	-	-	5.2	-20.5%
Avg. Weekly Stock-to-Vessel Requirements Ratio - TBY - Canola	5D-5	2.8	5.5	3.9	6.0	4.6	-	-	5.2	47.6%
Avg. Weekly Stock-to-Shipment Ratio - VCR - CWB Grains	5D-7	3.5	3.1	2.8	3.5	2.8	-	-	3.2	31.2%
Avg. Weekly Stock-to-Shipment Ratio - VCR - Non-CWB Grains	5D-7	3.6	2.5	1.8	0.7	1.0	-	-	0.8	-59.4%
Avg. Weekly Stock-to-Shipment Ratio - TBY - CWB Grains	5D-7	4.6	4.6	4.8	5.8	4.6	-	-	5.3	4.4%
Avg. Weekly Stock-to-Shipment Ratio - TBY - Non-CWB Grains	5D-7	3.3	4.2	5.2	5.9	5.2	-	-	5.5	-6.0%
Terminal Handling Revenue (\$millions)	5D-8	\$274.8	\$369.2	\$389.2	n/a	n/a	-	-	n/a	n/a
CWB Carrying Costs (\$millions)	5D-8	\$94.7	\$170.1	\$147.6	n/a	n/a	-	-	n/a	n/a
<b>System Performance</b>										
Total Time in Supply Chain (days)	5E-1	68.1	49.9	52.2	54.3	56.3	-	-	55.2	-6.1%

## 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 2.1% reduction in country elevator shipments as well as a 2.8% increase in capacity, the turnover ratio for the first six months of the 2010-11 crop year declined by 7.3%, falling to 2.8 turns from 3.0 turns a year earlier. [Table 5A-1]

This decline reflected the reductions that were reported by a majority of the provinces. British Columbia posted the most significant of these, with its ratio falling by 25.7%, to 1.9 turns from 2.6 turns. This was followed by a 14.4% reduction for Manitoba, with its ratio declining to 2.9 turns from 3.4 turns a year earlier. Saskatchewan registered a lesser decline of 8.4%, which resulted in its turnover ratio falling to 2.7 from 2.9. Running counter to these results was Alberta, which reported a 5.9% gain that raised its ratio 3.1 from 2.9.

### 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.

Reflecting the general reduction in storage capacity witnessed since the beginning of the GMP, grain inventories have largely been declining. Despite periodic fluctuations, approximately half of the system's storage capacity is actively employed in maintaining these stocks. From the 3.7-million-tonne average recorded in the first year of the GMP, primary elevator stocks have now shrunk to about three-quarters of this benchmark level. The first half of the 2010-11 crop year saw a 4.9% decrease in prairie grain inventories, with the average falling to 2.8 million tonnes from 2.9 million tonnes a year earlier. [Table 5A-2]

Figure 38: Primary Elevator Capacity Turnover Ratio

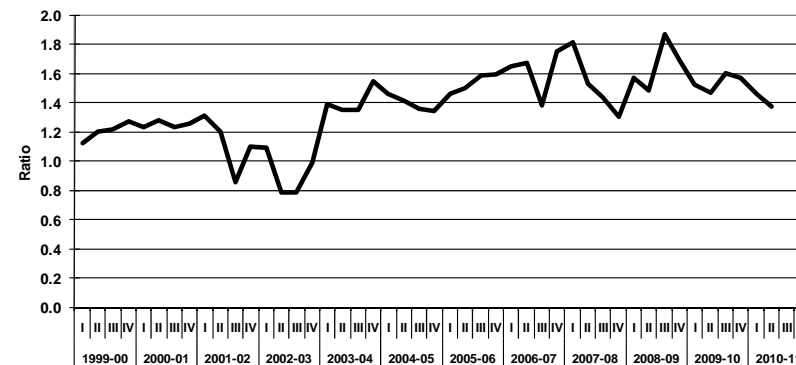
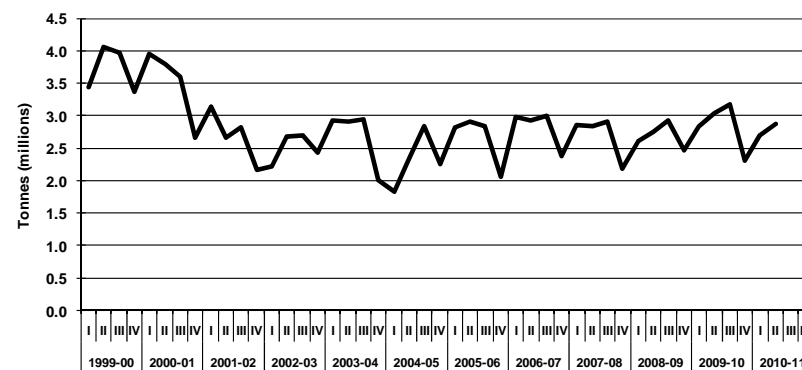


Figure 39: Average Weekly Stocks





Just as the average stock level has moved generally lower, so too has the average amount of time spent by grain in inventory. Here too, seasonality is a factor, although the quarterly average has fluctuated around the 30-day mark for several years. The first six months of the 2010-11 crop year proved consistent with this pattern, with an average of 31.9 days falling 3.6% below the 33.1-day average for the same period a year earlier. This result was heavily influenced by a steep reduction in durum stocks, which, owing to lower production and continuing strong demand, were effectively cut in half, and spent correspondingly less time in inventory.<sup>22</sup> [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.<sup>23</sup> These ratios are, however, heavily influenced by the amount of time that grain spends in inventory, and mimic their movement rather closely. [Table 5A-4]

The overall stock-to-shipment ratio fell by 2.2% in the first six months of the 2010-11 crop year, to 4.3 from the 4.5 a year earlier. This came despite a 6.0% increase in the ratio for the most prevalent grain held in inventory, wheat, as well as even larger increases for canola and other

22 The amount of time spent by durum in inventory is typically among the longest of the cereal grains, often in excess of 40 days. But its average for the first six months of the 2010-11 crop year fell to 23.1 days from the 63.1 days recorded for the same period a year earlier. The leverage occasioned by this 63.4% reduction let durum sway the overall average for time spent in inventory downwards, despite a 1.7% increase in the average of the system's much larger wheat stocks.

23 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 40: Average Days-in-Store

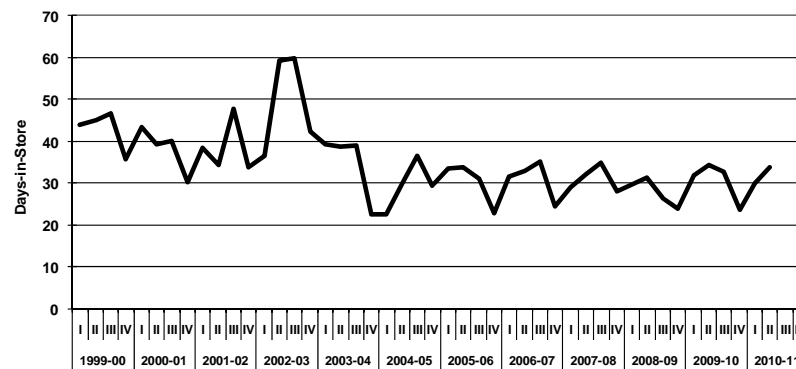
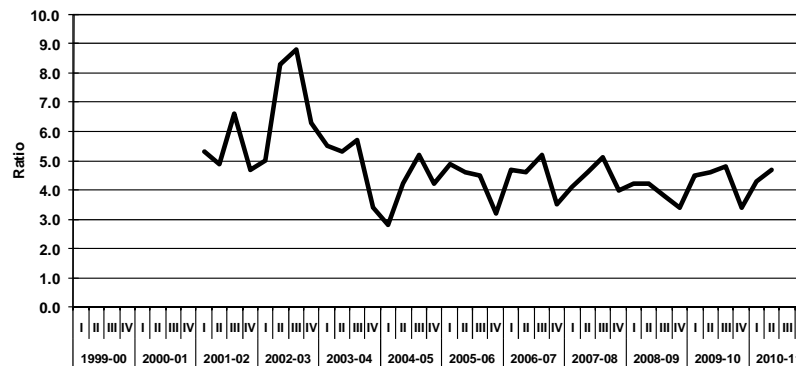


Figure 41: Primary Elevators - Stock-to-Shipment Ratio



non-CWB commodities. Much of this reduction was attributable to the sway exercised by durum, which saw its ratio fall by 62.6% as a result of equally deep cuts in both shipments and stocks.

## RAILWAY OPERATIONS

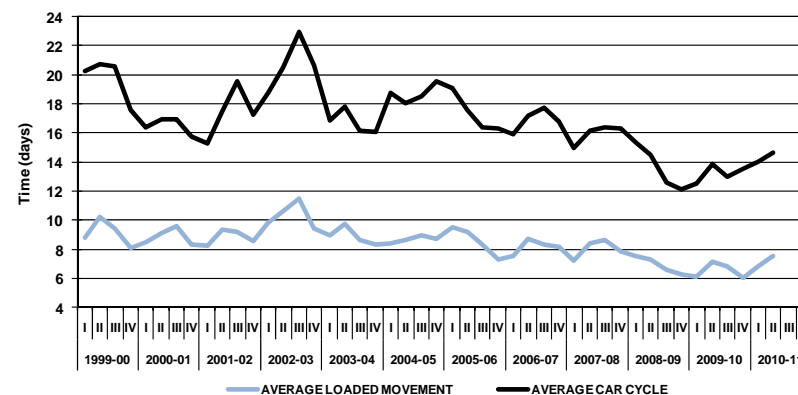
In the context of the GHTS, the car cycle measures the average amount of time taken by the railways in delivering a load of grain to a designated port in western Canada, and then returning the empty railcar back to the prairies for reloading. Despite a record of progressive improvement in recent years, the average car cycle rose progressively in the first and second quarters of the 2010-11 crop year, ultimately posting a year-to-date increase of 8.8%, to reach an average of 14.3 days against 13.2 days a year earlier.

Although anomalous against the longer-term record, increases were noted in each of the primary corridors. With a 10.6% rise, movements in the Vancouver corridor posted the largest overall increase, with the average cycle climbing to 15.3 days from 13.8 days a year earlier. This was followed by a 7.4% increase in the Prince Rupert corridor, which saw its average rise to 12.8 days from 11.9 days. The increase posted in the Thunder Bay corridor proved a notably lesser 3.3%, with the average rising to 13.5 days from 13.1 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 8.2%, to 7.2 days from 6.6 days a year earlier. A 9.5% increase was observed for the empty portion of the movement, with the average rising to 7.2 days from 6.6 days.

Although CN and CP both posted increases in their average cycles, the CN gain of 3.2% was dwarfed by the 14.2% gain registered by CP. The results proved somewhat 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 7.9% increase in the loaded portion of its average cycle against a 2.0% reduction in its empty portion. In comparison, CP posted a

Figure 42: Average Railway Car Cycle



marginally lesser 7.8% increase in the loaded portion of its movement versus a much heftier 20.1% increase on its empty component.

Notwithstanding seasonal influences, the underlying data highlights CP's comparatively weaker performance, particularly in the second quarter. Although much of this can be traced back to the service disruption occasioned by the June 2010 washout of the carrier's mainline near Medicine Hat, Alberta, it also magnified operational problems that had begun to emerge even earlier in the year. Moreover, the situation only worsened in the second quarter as an unusually heavy accumulation of snow in the southern Rockies, which, owing to avalanches and related control efforts, began to wreck havoc on the carrier's operations in the Vancouver corridor.

This elongation in the car cycle was largely evident in the averages posted for the movement of non-special and special crops as well. The average car cycle for non-special crops rose by 9.6%, to 14.2 days from

13.0 days a year earlier. This value proved to be 6.5% less than the 15.2-day average tied to special crops, which actually posted a 3.4% reduction for the period. Despite this, these results continue to suggest that there is a structural disadvantage inherent in the railway service received by special crops. [Tables 5B-2 and 5B-3]

### 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 car cycles at large, the railways' loaded transit time rose progressively in the first and second quarters, with the year-to-date average increasing by 7.9%, to 6.5 days from 6.0 days a year earlier.

Of more concern to grain shippers, however, is the consistency of the service they receive from the railways. To this end, the GMP now looks at the coefficient of variation in an effort to better gauge that consistency. Notwithstanding an increase in the average loaded transit time, the variability in the underlying distributions actually narrowed slightly, with the overall coefficient falling to 32.2% from 33.4%.<sup>24</sup> However, this improvement proved insignificant given the high degree of variability already in evidence. [Table 5B-4]

### Multiple-Car Blocks

In the first six months of the 2010-11 crop year, 10.5 million tonnes of grain moved in the multiple-car blocks that offered discounted freight rates. Although this represented an increase of just 0.6% over the 10.4

24 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.

Figure 43: Average Loaded Transit Time

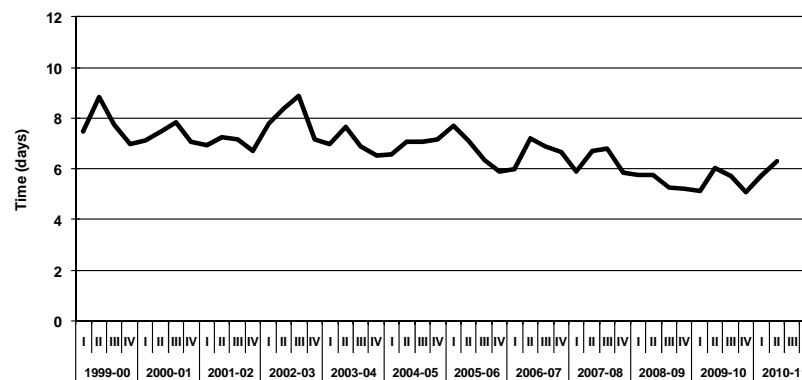
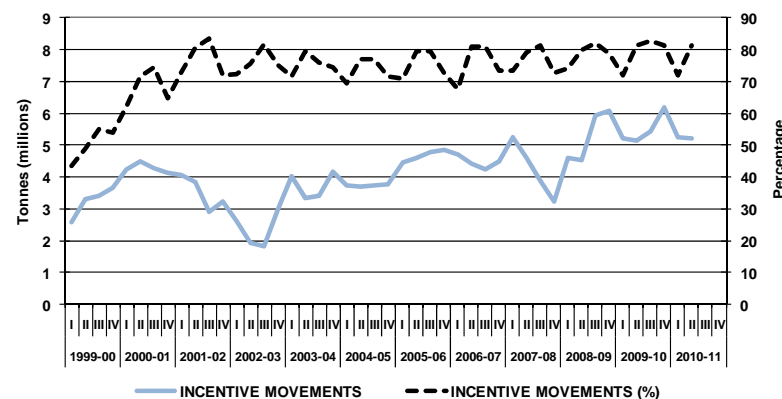


Figure 44: Railway Traffic Moving Under Incentive



million tonnes handled a year earlier, it also marked the setting of yet another high watermark for the period under the GMP.

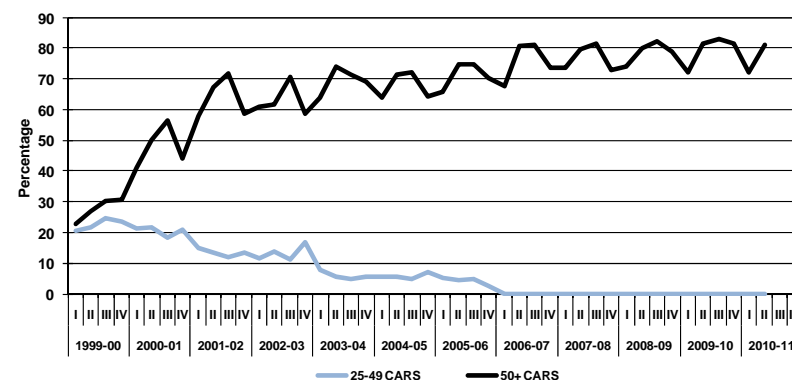
From the beginning of the GMP, it has been clear that the largest block sizes were the most popular with grain shippers. This stems simply from the fact that they provide the deepest monetary discounts, allowing the grain companies to realize the greatest financial returns. Moreover, both railways promoted these larger block sizes by systematically increasing the discounts on shipments in blocks of 50 or more cars while reducing those on movements in blocks of 25-49 cars.<sup>25</sup> [Table 5B-5]

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.

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 first half to just 0.3%, to an estimated \$70.0 million from \$69.7 million. Moreover, this was reflected in a marginally lower average earned discount for the period, which is estimated to have fallen to \$6.69 per tonne from \$6.71 per tonne a year earlier. [Table 5B-6]

<sup>25</sup> 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.

Figure 45: Composition of Multiple-Car-Block Movements



## TERMINAL ELEVATOR OPERATIONS

Over the course of the GMP, the amount of grain held in inventory at terminal elevators has proven to have a fairly consistent relationship with the system's overall handlings, generally amounting to about 25% of quarterly throughput. In the face of a 3.4% increase in terminal throughput, the average weekly stock level fell by 4.4% in the first six months of the 2010-11 crop year, to 1.2 million tonnes from 1.3 million tonnes a year earlier. This result was largely shaped by substantive reductions in west coast inventories.

Worthy of particular mention is the decline at Vancouver, where inventories fell by 22.9% in the second quarter, and by 11.6% for the first half as a whole.<sup>26</sup> Much of this was occasioned by CP's service problems,

<sup>26</sup> 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.

which constrained grain shipments into Vancouver and prompted a larger movement to Prince Rupert. Although this served to increase Prince Rupert's stocks by 9.7% in the second quarter, the port's average for the first half stood 20.3% below that witnessed a year earlier. Running counter to this were the ports of Thunder Bay and Churchill, where inventories increased by 4.8% and 5.9% respectively.

As in past years, wheat stocks again constituted the largest single commodity held in inventory, accounting for almost half of the average tonnage. However, these stocks declined by 11.5%, to 573,800 tonnes. The same was true of durum, which posted a 16.8% reduction, to 126,700 tonnes. Although there were a number of other commodities posting stock reductions, these were largely countered by increases in barley, canola and oat stocks. [Table 5C-2]

### Days in Store

In conjunction with the decrease in terminal stocks came a reduction in the amount of time grain spent in inventory in the first half, with the overall average number of days-in-store falling by 13.9%, to 17.3 days from 20.1 days a year earlier. Much of the impetus for this came from an 18.9% reduction in the average storage time at Vancouver, where stocks were drawn down in the face of protracted railway service problems. Supporting this was a 7.9% decline in the average storage time at Thunder Bay. These reductions were offset to some degree by moderate increases in the storage times at Prince Rupert and Churchill, which rose by 5.5% and 2.7% respectively. [Table 5C-3]

Reflective of the broader reduction was the fact that the majority of grains posted reduced storage times, although these varied widely by port. The most influential reductions came from the declines registered by durum, barley, canola and peas, which fell by 44.9%, 12.4%, 20.4% and 61.7% respectively.

Figure 46: Terminal Elevators - Average Weekly Stocks

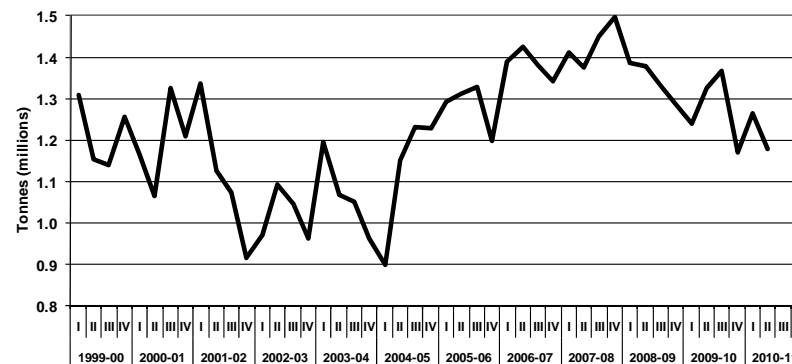
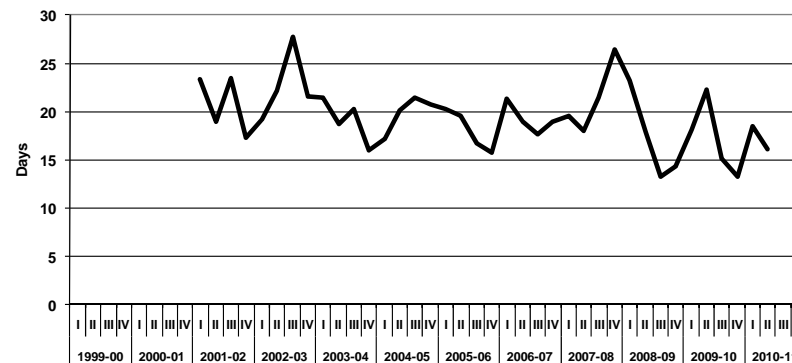


Figure 47: Terminal Elevators - Average Days-in-Store



## 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.<sup>27</sup>

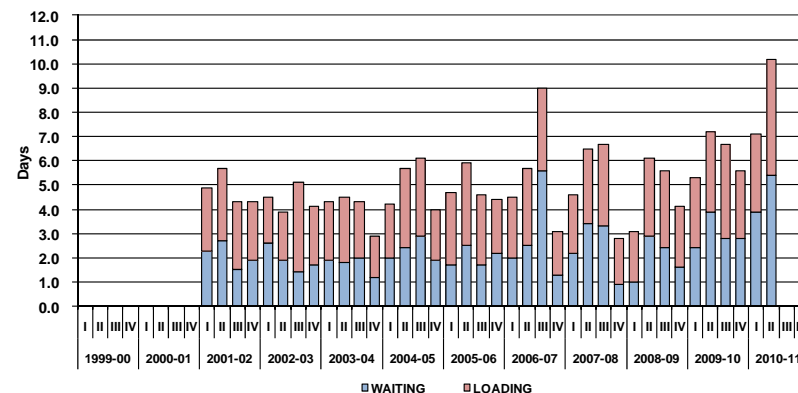
For Vancouver, the average ratio on most grains stood comfortably above a value of 2.0. The chief exception to this proved to be canola, with an average ratio of 0.5. Even in the face of increased throughputs, many of the port's ratios showed significant year-over-year increases, suggesting a build-up in inventories. These ranged from an 11.0% increase for wheat to a 55.9% increase for barley. However, these values appear to have been heavily influenced by an unusually sharp rise in the lower-graded, rather than the higher-graded, stocks. More modest gains were reported at Prince Rupert, with the ratio for wheat increasing by just 0.9%, remaining effectively unchanged at 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 137.4% gain in the ratio for canola. Nevertheless, the most influential appeared to have been wheat, which saw its ratio rise by a much lesser 16.4%, to 8.0 from 6.8 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.

On the whole, these measures suggest that terminal stocks were largely adequate 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

<sup>27</sup> 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.

Figure 48: Average Vessel Time in Port



inventories along with the suggestion of more significant shortages, particularly at the west coast ports. [Table 5C-5]

## PORT OPERATIONS

A total of 397 vessels called for grain at western Canadian ports during the first six months of the 2010-11 crop year. This represented a 2.0% reduction from the 405 ships that arrived for loading in the same period a year earlier.

### Average Vessel Time in Port

The average amount of time spent by vessels in port increased by 38.7% in the first half of the 2010-11 crop year, rising to an average of 8.6 days from 6.2 days a year earlier. Moreover, this proved to be the highest six-month average of any crop year reported under the GMP, building on the record-setting averages reached in both the first and second quarters.

This 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 4.6 days waiting to load, up 48.4% against the 3.1-day average recorded a year earlier. The time spent loading increased 29.0%, rising to an average of 4.0 days from 3.1 days a year earlier.

All ports, save Prince Rupert, reported significantly longer stays in the first half. Vancouver reported the longest overall stay in port, with its average for the first half rising by 49.4%, to 12.4 days from 8.3 days. This was followed by Prince Rupert, which posted a 2.0% decrease that lowered its average to 9.7 days from 9.9 days the year before.

More 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 the second largest overall increase, with its year-to-date average rising by 58.8%, to 2.7 days from 1.7 days. Despite this, Thunder Bay continued to post the lowest average times in port.<sup>28</sup> [Table 5D-1]

### Distribution of Vessel Time in Port

Despite the increased averages noted above, the proportion of ships needing more than five days to clear remained largely unchanged, rising marginally to 48.4% from 45.4% a year earlier. The more defining force in these results was the proportion of ships requiring unusually longer periods of time to clear. Indicative of this was the share of vessels needing 16 or more days to clear in the first half, which rose to 19.9% from 7.4% a year earlier.

Once again, the preponderance of these stays - some 65 out of 79 - was attributable to vessels loading at Vancouver. The data suggests that these longer stays were the result of the considerable delay incurred in

<sup>28</sup> 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.

getting grain into export position, and that the progressive degradation in CP's service during this period was the underlying factor. Although these delays became manifest in the latter half of September 2010, they continued through to the close of the second quarter. Moreover, the impact was widespread, and affected vessels taking on a broad range of CWB as well as non-CWB grains. [Table 5D-2]

### 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 2009-10 crop year, it was observed that this process required an average of 52.2 days; one of the lowest values observed under the GMP.

The overall amount of time involved in moving grain through the supply chain rose steadily in the first and second quarters of the 2010-11 crop year, to a six-month average of 55.2 days. This represented a 3.0-day increase over the previous crop year's 52.2-day average, and was shaped by an additional 1.4 days having been spent in storage at a country elevator; a further 0.5 days in transit as a railway shipment; and another 1.1 days in inventory at a terminal elevator. [Table 5E-1]

Despite this overall increase in the first half, grain still spent 12.9 fewer days moving through the GHTS than it did in the GMP's base year. As such, this 55.2-day average remains within the normal range of earlier observations under the GMP.

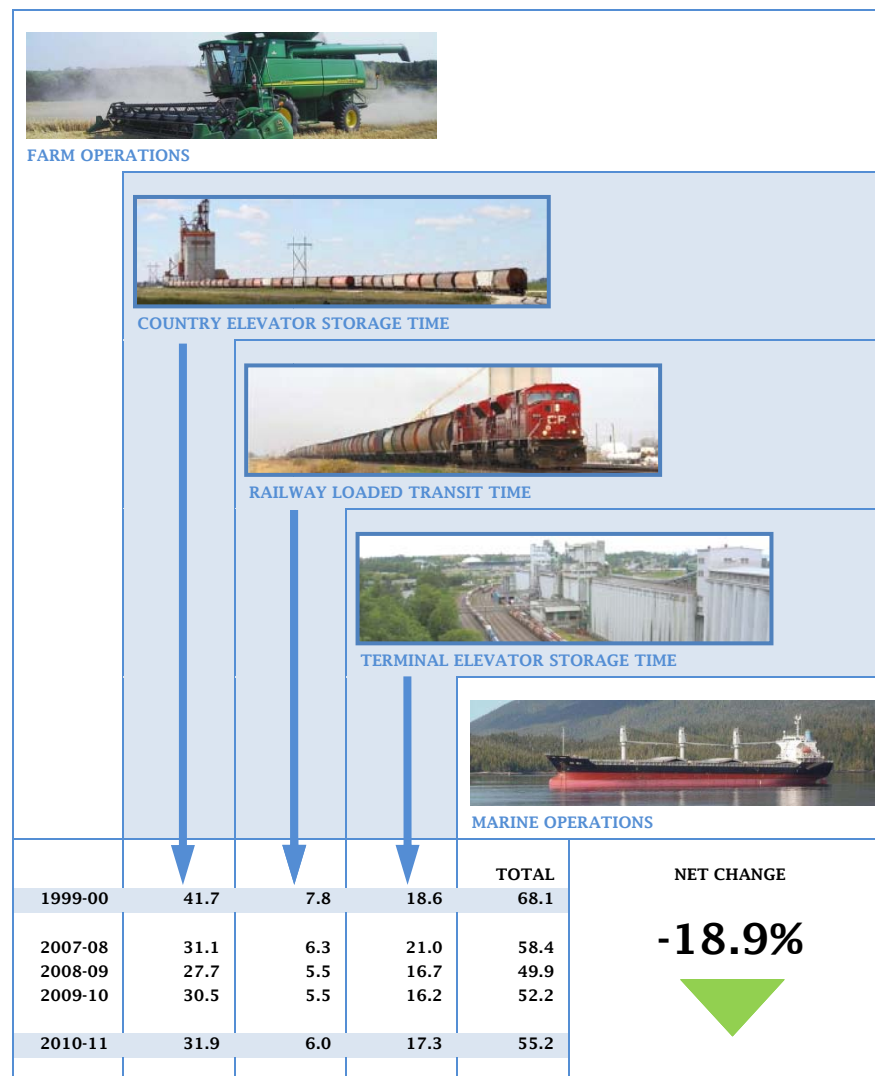
The following outlines some of the forces involved in the shaping of this result:

- Firstly, a decline in grain production reduced the amount of grain available for movement in the 2010-11 crop year by 9.0%, to 59.7 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. Although these forces suggested a possible easing of the pressures that would be brought to bear on the GHTS, overall grain shipments in the first half proved

roughly comparable to those witnessed a year earlier. As such, the demands placed on the system remained at heightened levels.

- Secondly, the problems that undermined CP’s service in the first quarter only grew in the second. While the reverberations from the June 2010 washout of its mainline near Medicine Hat, Alberta, were still being felt, CP had to begin grappling with the unusually heavy accumulation of snow in the Rockies that precipitated avalanches and disrupted railway operations from December through January. This served only to compound the delays and car-supply problems that had plagued shippers continuously since the beginning of the crop year. One of the more visible consequences of this was the growing delays to ships awaiting the arrival of CP grain trains at Vancouver. What had earlier been shipper frustration began to give way to anger in the second quarter as the financial burdens from vessel demurrage began to reach unprecedented levels.
- 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 becoming 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.

Figure 49: Days Spent Moving Through the GHTS Supply Chain





## Section 6: Producer Impact

Indicator Description	Table	2010-11								
		1999-00	2008-09	2009-10	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Export Basis</b>										
1CWRS Wheat (\$ per tonne)	6A-10A	\$54.58	\$66.74	\$65.86						
1CWA Durum (\$ per tonne)	6A-10B	\$67.63	\$87.57	\$79.52						
1 Canada Canola (\$ per tonne)	6A-10C	\$52.51	\$48.63	\$49.73						
Canadian Large Yellow Peas - No. 2 or Better (\$ per tonne)	6A-10D	\$54.76	\$101.57	\$78.32						
<b>Producer Cars</b>										
Producer-Car-Loading Sites (number) - Class 1 Carriers		415	333	268	259	259	-	-	259	-3.4%
Producer-Car-Loading Sites (number) - Class 2 and 3 Carriers		122	104	110	115	115	-	-	115	4.5%
Producer-Car-Loading Sites (number) - All Carriers		537	437	378	374	374	-	-	374	-1.1%
Producer-Car Shipments (number) - Covered Hopper Cars	6B-2	3,441	13,243	12,198	2,279	3,075	-	-	5,354	1.4%

## PRODUCER NETBACK

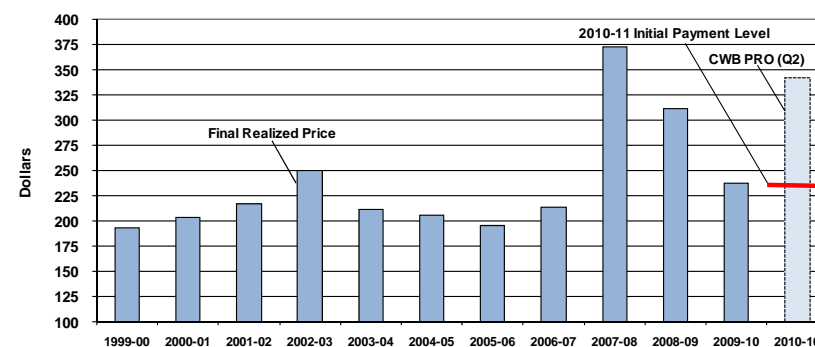
One of the GMP's key objectives is to determine the financial impact on producers arising from changes in the GHTS. The principal measure in this regard is the producer netback, an estimation of the per-tonne financial return to producers after the various logistics costs, collectively known as the export basis, are deducted from the actual price realized in a grain sale.

In its earlier reports, the Monitor described how increased commodity prices had largely been responsible for the improvement in the per-tonne returns accruing to producers of wheat, durum, canola, and yellow peas. Even in those years when the export basis fell, the financial gain derived from the reduction proved far less than that gained from better grain prices. But the escalation in grain prices has been highly erratic.

In the first four years of the GMP, grain prices moved steadily higher. This, however, was followed by a three-year decline beginning in the 2003-04 crop year. But prices began to rally yet again in the 2006-07 crop year, with the ensuing appreciation in price lifting producer returns to their highest levels the following year. The price decline that followed, fuelled in part by the financial crisis that gripped the world in the latter part of 2008, resulted in producers surrendering a large portion of these recent gains.

The GMP only includes the producer netback in the Monitor's annual reports since certain elements integral to the calculation are not available until after the close of the crop year itself. Nevertheless, current price and input-cost data is collected for both wheat and canola as a means of providing some insight into their probable impact on the per-tonne financial return arising to producers. Some of the changes observed during the first six months of the 2010-11 crop year are summarized below.

Figure 50: Recent Price Changes - 1CWR5 Wheat (dollars per tonne)



## CWB Grains

The GMP uses the CWB's Pool Return Outlook (PRO) for 1 CWR5 wheat (13.5% protein) as the principal barometer of changing CWB grain prices. Throughout the first six months of the 2010-11 crop year, the CWB's PRO for 1 CWR5 wheat moved steadily upwards. Gauged against the 2009-10 crop year's final realized price of \$236.80 per tonne, the PRO rose by a factor of 30.1%, closing out the first quarter at \$308.00 per tonne. The second quarter saw another 11.0% gain, which raised the PRO to \$342.00 per tonne. Moving in concert with this was the farmer's initial payment, which had opened the year at \$134.20 per tonne, but climbed to \$239.80 per tonne by the close of the first half.

Much of the impetus for this improvement in price stemmed from the expectation of tighter global wheat supplies in the face of a severe drought experienced by Russia and other Black-Sea exporters. This pressure increased substantively 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. Owing to these forces, the financial returns accruing to producers are expected to improve substantively in the 2010-11 crop year, and place well against some of the better returns witnessed thus far under the GMP.

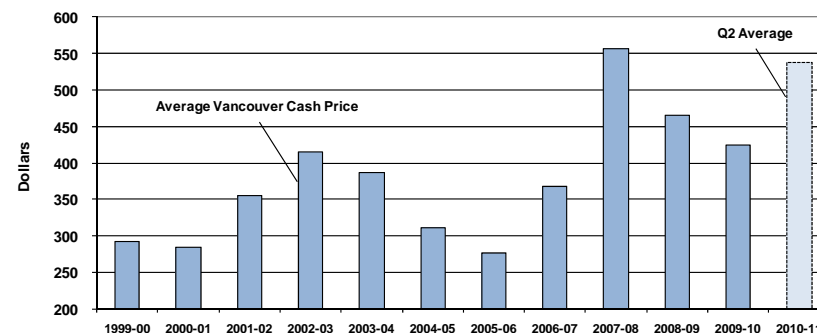
### Non-CWB Grains

Although not nearly as significant an increase as that posted for wheat, the Vancouver cash price for 1 Canada Canola also climbed steadily through the first six months of the 2010-11 crop year, rising by 26.9% to an average of \$538.19 per tonne against the previous crop year's final average of \$424.19 per tonne. This was fuelled in large measure by a growing export demand, which saw canola reaching into new markets around the globe. Complementing this was the sustained domestic demand derived from the advent of new crushing capacity in western Canada.

The magnitude of the price increase noted thus far into the 2010-11 crop year for 1 Canada canola strongly suggests that it will have a positive impact on the per-tonne financial returns of western Canadian producers. As is the case with wheat, these returns are widely anticipated to place among the better values posted under the GMP.

Even so, rising input costs seemed likely to erode some of these gains. The most pronounced of these were the increases tied to short-haul trucking, which rose by 18.8%. This was followed by an increase in railway freight rates, which generally added about 6.0% to the cost of transportation in the primary export corridors. More modest influences came from the handling charges for various elevator activities. In the case of country elevators, these ranged from a 2.4% increase on cleaning, to reductions of 1.0% and 8.5% respectively on elevation and storage. As regards terminal elevator activities, these tariff rates showed increases of 1.5% on elevation and 2.0% on storage.

Figure 51: Recent Price Changes - 1 Canada Canola (dollars per tonne)



### 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. 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 2009-10 crop year, only 378 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 the number of sites serviced by 58.4%, to 268 from 644. Conversely, the number of sites operated by the smaller Class 2 and 3 carriers increased to 110 from 65. [Table 6B-1]

The first six months of the 2010-11 crop year saw a further shift in this balance, with the Class 1 carriers surrendering another nine sites, while the Class 2 and 3 carriers took on five more. Much of this was tied to the creation of the Stewart Southern Railway, which saw the transfer of several CP sites to the new shortline in the first quarter. By the end of the period, the number of sites operated by the major railways had fallen to 259 while those tied to the shortlines had increased to 115.

### Producer Car Shipments

Despite the last eleven year's reduction in producer-car-loading sites, producer-car shipments have risen significantly. By the close of the 2008-09 crop year, total shipments had almost quadrupled, climbing to a height of 13,243 carloads from 3,441 carloads in the base year. However, this growth has proven somewhat sluggish in the face of periodic downturns in volume.

Nevertheless, producer-car shipments grew by 1.4% in the first half of the 2010-11 crop year, to 5,354 carloads from 5,281 carloads in the same period a year earlier. This represented 3.5% of all covered hopper car movements, unchanged from the share garnered in the same period a year earlier. When gauging only CWB grain shipments, the share given over to producer-car shipments represented a more substantive 6.6%, and a gain over the 6.0% share earned twelve months before. [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.

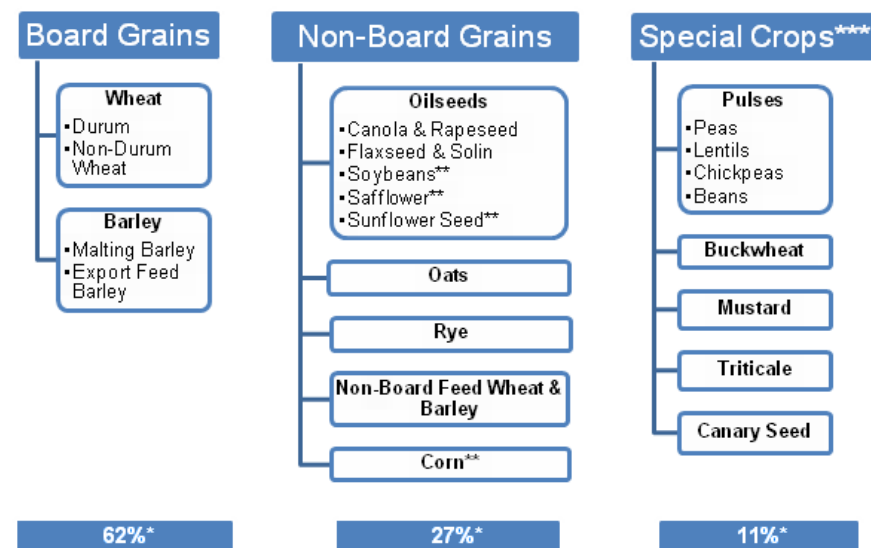
In a larger sense, these reforms were expected to alter the commercial relations that have traditionally existed between the primary participants in the GHTS: producers; the Canadian Wheat Board; grain companies; railway companies; and port terminal operators. Using a broad series of indicators, the 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

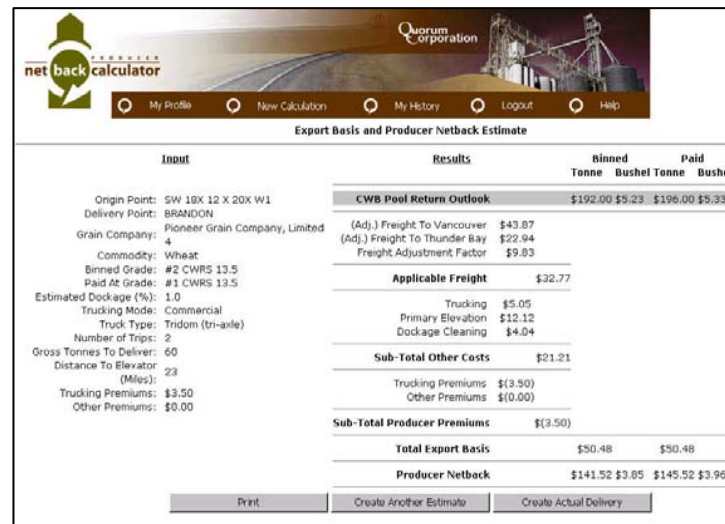
Many stakeholders have expressed concern over the increased trucking distances in moving grain from the farm gate to the elevator as a result of the rationalization of GHTS infrastructure. While all evidence suggests that truck hauls are increasing because of the reduced number of delivery points, the exact - or even approximate - amount of this increase remains unknown. 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.

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



The screenshot displays the 'net back calculator' interface for Quorum Corporation. It features a navigation bar with 'My Profile', 'New Calculation', 'My History', 'Logout', and 'Help'. The main content is titled 'Export Basis and Producer Netback Estimate' and is divided into 'Input' and 'Results' sections.

	Results	Binned		Paid	
		Tonne	Bushel	Tonne	Bushel
<b>Input</b>					
Origin Point: SW 18X 12 X 20X W1					
Delivery Point: BRANDON					
Grain Company: Pioneer Grain Company, Limited	(Adj.) Freight To Vancouver \$43.87				
Commodity: Wheat	(Adj.) Freight To Thunder Bay \$22.94				
Binned Grade: #2 CWRS 13.5	Freight Adjustment Factor \$9.83				
Paid At Grade: #1 CWRS 13.5	<b>Applicable Freight</b> \$32.77				
Estimated Dockage (%): 1.0	Trucking \$5.05				
Trucking Mode: Commercial	Primary Elevation \$12.12				
Truck Type: Tridom (tri-axle)	Dockage Cleaning \$4.04				
Number of Trips: 2	<b>Sub-Total Other Costs</b> \$21.21				
Gross Tonnes To Deliver: 60	Trucking Premiums \$(3.50)				
Distance To Elevator: 23 (Miles)	Other Premiums \$(0.00)				
Trucking Premiums: \$3.50	<b>Sub-Total Producer Premiums</b> \$(3.50)				
Other Premiums: \$0.00	<b>Total Export Basis</b> \$50.48	\$50.48		\$50.48	
	<b>Producer Netback</b> \$141.52	\$3.85	\$145.52	\$3.96	
	Print	Create Another Estimate	Create Actual Delivery		

The output screen for Quorum Corporation's Netback Calculator.

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.

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