

# Annual Report

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## 2011-2012 Crop Year



Government of Canada  
Gouvernement du Canada



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## Foreword

The following report details the performance of Canada's Grain Handling and Transportation System (GHTS) for the crop year ended 31 July 2012, and focuses on the various events, issues and trends manifest in the movement of Western Canadian grain during the past year. This is the twelfth annual report submitted by Quorum Corporation in its capacity as the Monitor appointed under the Government of Canada's Grain Monitoring Program (GMP).

As with the Monitor's previous quarterly and annual reports, the report that follows is structured around a number of measurement indicators. 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 2011-12 crop year is largely gauged against that of the 2010-11 crop year. But the Grain Monitoring Program (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 through thirteen 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.

QUORUM CORPORATION

Edmonton, Alberta  
December 2012

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## Executive Summary

### PRODUCTION AND SUPPLY

As was the case a year earlier, the 2011 growing season was impacted by an excessive amount of spring moisture. A heavier-than-normal snowfall only compounded the soil saturation problems that remained from the previous year. Flooding throughout much of the southern prairies along with excessive rains in May and June resulted in 6.8 million acres left unseeded. The summer brought almost the reverse, with hot, dry conditions being experienced in eastern Saskatchewan and Manitoba.

Notwithstanding these forces, the extension of generally favourable weather conditions through to the end of September allowed for the quicker harvesting of a better quality crop across much of the prairies. As a result, overall grain production for the 2011-12 crop year increased by 6.9%, to 53.5 million tonnes from the previous crop year's 50.1 million tonnes. When combined with the 8.6 million tonnes of stock carried forward from the preceding crop year, the overall grain supply reached 62.2 million tonnes. This embodied an increase of 1.5% from the previous crop year's 61.3 million tonnes.

### TRAFFIC AND MOVEMENT

With an increase in the grain supply, the Grain Handling and Transportation System's (GHTS) total handlings grew noticeably in the 2011-12 crop year. This resulted in record or near-record volumes under the Grain Monitoring Program (GMP) for the tonnage delivered to country elevators, moved by rail and loaded onto ships.

- Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, increased by 9.5% to 35.3 million tonnes from 32.3 million tonnes a year earlier. Increased volumes from Alberta, Saskatchewan and British Columbia were partially countered by reduced shipments from Manitoba.
  - The amount of grain moved by rail to western Canadian ports increased by 4.5%, to 29.3 million tonnes from 28.0 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 28.2 million tonnes, moved in covered hopper cars. The remaining 1.1 million tonnes moved in a combination of boxcars and containers for bulk and bagged grain shipments, as well as tankcars for export canola oil.
  - The port of Vancouver remained the principal export destination for western Canadian grain, although volume slipped by 0.2%, remaining effectively unchanged at 17.6 million tonnes. In comparison, Prince Rupert posted a 6.4% increase, with volume climbing to 4.7 million tonnes from 4.4 million tonnes. Thunder Bay posted a significant gain in traffic volume, with shipments increasing by 20.9%, to 6.4 million tonnes from 5.3 million tonnes a year earlier. In contrast, rail shipments to Churchill decreased by 16.9%, to 528,000 tonnes from 635,700 tonnes.
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- Port throughput, as measured by the volume of grain shipped from terminal elevator and bulk loading facilities located at Canada's four western ports, totalled 26.9 million tonnes. This represented a new GMP record and a 5.8% increase over the 25.4 million tonnes handled in the previous crop year. Vancouver accounted for 56.9% of this volume, with total marine shipments increasing by 2.4%, to 15.3 million tonnes from 15.0 million tonnes. This was supported by a 4.7% increase in volume for Prince Rupert, which rose to 4.7 million tonnes from 4.5 million tonnes a year earlier. Thunder Bay also experienced a sharp upturn, with a 19.6% gain lifting its throughput to 6.3 million tonnes from 5.3 million tonnes. Churchill reported a 21.7% decrease in its handlings, which fell to 515,100 tonnes from 657,500 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 Grain Monitoring Program (GMP). Still, the evolution continues, with the following changes being noted in the 2011-12 crop year.

- The total number of country elevators increased by 5.5%, to 386 from 366 at the close of the previous crop year. However, this gain was largely the product of a change in the licensing requirements of the Canadian Grain Commission rather than in the elevator network itself. Nevertheless, this served to reduce the accumulated loss since the beginning of the GMP to 618 facilities, or 61.6%. The reverse was the case for the network's grain delivery points, which fell by 0.7%, to 271 from 273. This was complemented by 370,300 tonnes of added storage capacity, with the overall total being raised to slightly above 6.7 million tonnes for the first time since the close of the 2000-01 crop year.
- With no reported discontinuances in the 2011-12 crop year, the scope of the western Canadian railway network remained unchanged at 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, the decline remains substantially less than that of the elevator system it serves. Still, there was 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, Big Sky Rail, in September 2011. This served to reduce the infrastructure under Class 1 management to 15,029.0 route-miles, or 84.3%, while increasing that under the non-Class-1 carriers to 2,801.3 route-miles, or 15.7%.
- The 2011-12 crop year saw the first significant change to the makeup of the terminal elevator network in several years. At the close of the crop year, the network comprised 16 facilities with an associated storage capacity of 2.2 million tonnes. Although this denoted a gain of one facility over those in place a year earlier, it also signified a loss of 261,800 tonnes of storage capacity. These values differed moderately from those benchmarked in the GMP's base year, which encompassed 14 elevators with 2.6 million tonnes of storage capacity. Much of the loss in storage capacity was attributable to a 231,000-tonne reduction in the licensed capacity of the Viterra C facility at Thunder Bay, which also saw a 16,500-tonne expansion at Mission Terminal. As a result, Thunder Bay now accounts for seven of the system's elevators and 43.6% of its storage capacity. Similar shifts were also reported by Vancouver, which saw a 63,100-tonne reduction in storage capacity at Pacific Elevators along with the licensing of a



new 15,000-tonne facility operated by Parrish and Heimbecker. By the close of the crop year Vancouver claimed seven of the system's elevators and 40.9% of its licensed storage capacity. Prince Rupert and Churchill both followed with one terminal elevator each, and storage capacity shares of 9.5% and 6.4% respectively.

## COMMERCIAL RELATIONS

The 2011-12 crop year saw a further rise in the cost of the commercial services used to move grain through the GHTS. These included some fairly sharp rises in railway freight rates as well as terminal elevator handling.

- Declining oil prices did much to contain the commercial trucking rates associated with moving grain in the 2011-12 crop year. As a result, the composite price index for short-haul trucking remained unchanged at 162.2.
- Railway freight rates moved generally higher at the outset of the 2011-12 crop year. Once again, these increases proved corridor specific, and ranged from 5% to 16% depending on the originating carrier. Owing in large measure to the railways' adoption of seasonal pricing, CN lowered its rates in the second and third quarters, but raised them again in the fourth. In comparison, CP's single-car rates remained unchanged through the first nine months of the crop year, but were followed in the fourth quarter by an increase on its eastbound rates and a reduction on its westbound rates. By the close of the crop year, the single-car rates in the Vancouver and Thunder Bay corridors had effectively been raised by an average of 4.6% and 9.2% respectively.
- Increases were noted in the per-tonne rates assessed by grain companies for a variety of primary elevator handling activities in the 2011-12 crop year. These ranged from an increase of just 0.1% for the receiving, elevating and loading out of grain to a high of 1.6% for the removal of dockage as well as for elevator storage.
- Most of the GHTS's terminal elevators increased their per-tonne rates for the receiving, elevating and loading out of grain in the 2011-12 crop year. Worth particular mention were the rates posted by Churchill, which rose sharply for the first time in several years. On the whole, this had a powerful impact, serving to raise the composite price index by 8.4%. Much the same was true of storage charges, which showed a more substantive 21.6% gain.

## Tendering

The Canadian Wheat Board (CWB) issued a total of 154 tenders calling for the shipment of 2.3 million tonnes of grain in the 2011-12 crop year. This represented a 30.5% decrease from the 3.3 million tonnes put out to tender in the same period a year earlier. The majority of this tonnage, 50.5%, related to the movement of wheat. This entailed a potential movement of 1.2 million tonnes, some 21.8% less than the 1.5 million tonnes called a year earlier. Barley ranked second, with calls for 991,100 tonnes having been issued. This denoted 43.1% of the overall total compared to 48.9% the previous year. Durum calls, which took a 6.4% share against the 6.2% share seen a year earlier, encompassed just 147,800 tonnes.

The CWB's tender calls were met by 445 bids offering to move 12.3 million tonnes of grain, more than five times the amount sought. The majority of these bids, 75.1%, responded to calls for the movement of barley. Another 22.3% responded to those issued for wheat, while the remaining 2.6% answered those for durum. Ultimately, this resulted in the awarding of 184 contracts for the movement of 1.4 million tonnes of grain. This marked a decline of 14.3% from the 1.7 million tonnes awarded a year earlier. The largest proportion, 50.7%, was directed to the port of Vancouver. This was followed in turn by Prince Rupert and Thunder Bay, which secured shares of 38.6% and 10.7% respectively. These shipments represented 10.0% of the total tonnage shipped by the CWB to western Canadian ports in the 2011-12 crop year.

#### Advance Awards

The total tonnage moved under the CWB's advance car awards program fell by 44.9% in the 2011-12 crop year, to 613,100 tonnes from 1.1 million tonnes a year earlier. This represented just 4.3% of the total tonnage shipped to the four ports in western Canada by the CWB, against the 8.3% share secured the year previous.

In conjunction with the 1.4 million tonnes that moved under the CWB's tendering program, a total of 2.0 million tonnes of CWB grain were moved under the auspices of these two programs. On a combined basis, this represented 14.3% of the CWB's total grain shipments to the four ports. This fell considerably short of the 40% that had been targeted, and well below the 20.6% that had been handled under these same two programs a year earlier.

#### Commercial Developments

There were a number of significant developments in the commercial activities surrounding the movement of grain in the 2011-12 crop year. Moreover, a number of these would have a significant bearing on the workings of the GHTS in the years ahead.

- The most substantive of these related to the federal government's enacting of Bill C-18, *The Marketing Freedom for Grain Farmers Act*. In essence, Bill C-18 provided for a number of amendments to the Canadian Wheat Board Act, not the least of which related to the removal of its long-standing monopoly over the sale of western Canadian wheat and barley. Although farmers would now have the right to sell their grain on the open market, Bill C-18 also provided for the transformation of the CWB into a voluntary marketing entity, with interim support from the federal government while the organization transitioned to full private ownership. In addition to having the option of selling their grain directly to a grain company, the producer would also be able to sell it to a revamped CWB. Moreover, the CWB would itself be able to engage in the sale of any grain, not just wheat and barley. By the close of the third quarter the grain industry was moving decidedly ahead with its preparations for the changeover. One of the most visible features in this was the issuance by a number of grain companies of forward-delivery contracts. The CWB indicated that it too would be offering farmers a variety of new pool and cash options, officially launching these products at the end of March 2012. In support of this, the CWB also signed what became the first of several agreements with individual grain companies, all of which would see these firms handling grain on behalf of the CWB. These agreements, which codified the new commercial relationship with its former agents, also gave the CWB access to a grain-gathering network that extended throughout western Canada.
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- With the introduction of Bill C-18, *The Marketing Freedom for Grain Farmers Act*, the federal government also acknowledged that Churchill might well face a greater challenge in adapting to the realities of an open market on 1 August 2012 than other ports in western Canada. This is due in large measure to the significant role played by the Canadian Wheat Board in directing grain to the port for export. Building on what it considered to be the importance of maintaining the port of Churchill as a viable shipping option, the government announced that it would be providing an economic incentive of up to \$5.0 million per year for five years to support shipments of grain, including oilseeds, pulses and special crops, through this gateway. This was subsequently formalized as the Churchill Port Utilization Program. In addition, the government also indicated that it would be providing up to \$4.1 million over three years to maintain the port.
- Following the announcement of the federal government's plan to open the market for wheat and barley in western Canada, ICE Futures Canada - a subsidiary of Atlanta-based IntercontinentalExchange - began to design new commodity-specific futures contracts that would provide the grain industry with the standard open-market mechanisms for price discovery, hedging and risk management. Intended for use by the trade at large, these instruments are aimed at providing buyers and sellers with more accurate market prices for spring wheat, durum and barley. The new ICE Futures contracts began trading on the electronic exchange on 23 January 2012. While initial trading volumes proved relatively low, industry participants believed that these instruments would begin to attract greater interest and usage as the 2012-13 crop year neared. To some extent, this proved true, as the number of wheat contracts traded in the last month of the 2011-12 crop year edged upwards.
- In response to the concerns that had been raised by the majority of rail shippers regarding the state of railway service in Canada, the federal government committed itself in early 2008 to a review of railway service. This review was conducted in two phases: the first centred on gathering and analyzing data relating to the railways' performance during a two-year period between 2006 and 2008; while the second employed a panel of eminent persons to review the work completed in the first phase, and to consult with the stakeholder community regarding any problems identified. This panel formally submitted its final report to the Minister of State (Transport) in late December 2010. The federal government responded with a four-point course of action, which, among others, called for a six-month facilitated process to negotiate a template service agreement and commercial dispute resolution mechanism. Building on this, the Minister of Transport announced on 31 October 2011 that Jim Dinning, an Alberta businessman and former provincial cabinet minister, had been appointed to facilitate the negotiations aimed at developing a template service agreement and commercial dispute resolution mechanism. This effort, which got under way early in the second quarter, drew to a close in April 2012. In his final report, which was presented to the Minister in early June, the facilitator indicated that while some progress towards these goals had been made, he was ultimately unable to bridge the divide that existed between shippers and carriers in the development of acceptable conventions. Despite this, Mr. Dinning claimed that the process had in fact led to a potentially workable solution; one that only needed a fair chance at success. He recommended that Transport Canada consider a three-tiered, traffic-based approach to the development of a template service agreement, and that this be used as a guide to all stakeholders in fashioning their own negotiated agreements. He also urged the government to consider a timelier and more cost-effective proposal for the resolution of disputes than now afforded by the *Canada Transportation Act*.

- On 20 March 2012 Viterra Inc. announced that it had agreed to be acquired by Glencore International PLC in an all-cash transaction valued at approximately \$6.1 billion. As Canada's largest grain company, Viterra controlled a domestic network of licensed primary, process and terminal elevators that handled about 45% of all the grain delivered by producers in western Canada. It also possessed a large retail network engaged in selling various crop inputs. What is more, Viterra had grown significantly beyond Canada, becoming an integrated agri-business with almost \$12 billion in worldwide revenues. With complementary holdings in Europe, Asia and South America, the acquisition offered Glencore a means to strengthen its position as a global grain-handler and marketer. Yet Glencore did not propose to absorb Viterra entirely. Rather, it had also entered into separate agreements with Agrium Inc. and Richardson International Limited for the spinoff of certain Viterra assets. To Agrium would go much of Viterra's Canadian retail crop input facilities; all of its Australian retail facilities; and a minority position in a nitrogen production facility. For its part, Richardson International would receive almost a quarter of Viterra's Canadian grain handling assets; a similar interest in Vancouver's Cascadia Terminal; a terminal in Thunder Bay; as well as two grain processing subsidiaries. Each of these transactions would be subject to the appropriate court, shareholder and regulatory approvals; both foreign and domestic. The first of these hurdles was passed in early May 2012 when Glencore received a "No Action" letter from the Competition Bureau of Canada. This was followed by a special meeting of Viterra shareholders, who voted 99.8% in favour of the Glencore acquisition. Although the consent of others soon followed, by the close of the 2011-12 crop year, only China's Ministry of Commerce had still not weighed in with its regulatory approval. This effectively meant that the transaction could not be closed in advance of the 2012-13 crop year.
  
- In advance of the collective agreements that were set to expire on 1 January 2012, the Teamsters Canada Rail Conference (TCRC), which represented some 4,800 employees of the Canadian Pacific Railway, entered into negotiations with the carrier for new contracts. However, by the spring of 2012 a conclusion to the bargaining still remained elusive. In late April 2012 the union membership, dissatisfied with the lack of progress, voted 95% in favour of giving their bargaining committee the mandate to initiate strike action if needed. This was ultimately followed by the issuance of a formal strike notice to CP on 19 May 2012, with a work stoppage slated to begin at midnight on 23 May 2012. For its part, the railway's management indicated that it was not prepared to maintain service in the event of a work stoppage, and would instead proceed with a structured shut down of its Canadian train operations. Following the initiation of strike action, the federal labour minister moved quickly to intercede in a dispute that was estimated to cost the Canadian economy more than \$540 million per week. Against protests from various labour leaders, the federal government introduced Bill C-39, the *Restoring Rail Service Act*, in the House of Commons on 28 May 2012. The Bill received Royal Assent three days later. In essence, the legislation put an immediate end to the work stoppage and sent the disputed issues between the two parties into an interest-based binding arbitration process. Although CP's operations in the United States remained unaffected, the strike effectively halted the company's train movements from Vancouver to Montreal for 10 days. The GHTS was equally impacted, with a portion of the grain available for movement being held back in the country. Although some grain was diverted into CN-served elevators, this served to provide only partial relief. The constricted flow of grain into the terminal-elevator system resulted in a backlog of traffic that required several weeks to fully disperse.

## SYSTEM EFFICIENCY AND PERFORMANCE

In the face of a 1.5% increase in the grain supply, which rose to 62.2 million tonnes from 61.3 million tonnes a year earlier, regulated railway grain shipments in the 2011-12 crop year reached a GMP record of 29.3 million tonnes. As a result, the pressures brought to bear on the GHTS proved to be the greatest experienced thus far.

- The overall amount of time involved in moving grain through the supply chain fell by 9.9% in the 2011-12 crop year, to an average of 47.1 days from the previous crop year's overall 52.3-day average. This was due primarily to the reduced time spent by grain in storage in country elevators, which fell by an average of 3.2 days. A further 0.4 days was derived from a reduction in the railways' loaded transit time. Adding to these gains was a 1.6-day decrease in the amount of time grain spent in inventory at a terminal elevator. As a result, the amount of time spent by grain in moving through the GHTS in the 2011-12 crop year proved to be the lowest yet observed under the GMP.
- By the beginning of the crop year the operational problems that had confronted the Canadian Pacific Railway and undermined its service offering throughout much of the previous crop year had effectively been overcome. As a result, grain moved to export position much more effectively and efficiently than it did twelve months earlier. Further, grain shippers reported comparatively few problems with the service they were receiving from the railways in the country, despite what was proving to be a near-record handling for the elevator system. Even more important was the fluidity with which grain was moving through the ports. With better inbound supplies, the terminal elevator system, which was also bearing the pressures of a record throughput, was better able to provide for the timelier loading of waiting ships.

## PRODUCER IMPACT

All of the data assembled since the beginning of the GMP has consistently shown that the financial returns arising to producers have been heavily influenced by the prevailing price of grain. While the export basis has unquestionably risen over time, it is the prevailing price of the commodity that continues to have the most sway over these returns. This was equally true of the 2011-12 crop year, where generally higher grain prices were chiefly responsible for improving the producer's netback.

- The producer's netback for CWB grains showed mixed results, with a 6.2% decrease on 1CWRS wheat returning \$268.43 per tonne, and a 19.5% increase on 1CWA durum yielding a return of \$293.43 per tonne. Both commodities saw an increase in their export basis, with that of wheat rising by 1.9% to \$74.75 per tonne, and that of durum rising by 8.8% to \$97.24 per tonne.
- Much the same was in evidence for non-CWB commodities, with an increase of 4.5% on 1 Canada canola raising the producer's netback to a GMP record of \$535.05 per tonne, and a 49.0% increase for large yellow peas also raising its yield to a GMP record of \$318.28 per tonne. Increases in the export basis for both commodities were also noted, with that of canola rising by 1.9% to \$54.16 per tonne, while that of large yellow peas rose by 9.2% to \$92.64 per tonne.

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

- The number of producer-car loading sites situated throughout western Canada has been reduced by almost half since the beginning of the GMP. With the close of the 2011-12 crop year, only 366 out of 709 remained. Much of the overall decline can be traced back to the closures made by the larger Class 1 carriers, which reduced its serviced sites by 63.7%, to 234 from 644. Conversely, those operated by the smaller Class 2 and 3 carriers increased by 103.1%, to 132 from 65.
  - Even in the face of the reduction in producer-car-loading sites, producer-car shipments have risen significantly. Although this growth could be characterized a sluggish, the 2011-12 crop year saw a further 10.0% gain, with a GMP record of 14,341 carloads being attained.
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## Section 1: Production and Supply

Indicator Description	Table	1999-00	2009-10	2010-11	2011-12				YTD	% VAR
					Q1	Q2	Q3	Q4		
<b>Production and Supply</b>										
Crop Production (000 tonnes)	1A-1	55,141.7	56,144.2	50,071.2	53,543.9				53,543.9	6.9%
Carry Forward Stock (000 tonnes)	1A-2	7,418.2	9,515.3	11,200.1	8,627.9				8,627.9	-23.0%
Grain Supply (000 tonnes)		62,559.9	65,659.5	61,271.3	62,171.8				62,171.8	1.5%
Crop Production (000 tonnes) - Special Crops	1A-3	3,936.7	5,573.7	5,617.4	4,474.6				4,474.6	-20.3%

### PRODUCTION AND SUPPLY

As was the case a year earlier, the 2011 growing season was impacted by an excessive amount of spring moisture. A heavier-than-normal snowfall only compounded the soil saturation problems that remained from the previous year. Flooding throughout much of the southern prairies along with excessive rains in May and June resulted in an estimated 6.8 million acres going unseeded.<sup>1</sup> The summer brought almost the reverse, with hot, dry conditions being experienced in eastern Saskatchewan and Manitoba.

Notwithstanding these climatic forces, the extension of generally favourable weather conditions through to the end of September allowed for the quicker harvesting of a better quality crop across much of the prairies. As a result, overall grain production for the 2011-12 crop year increased by 6.9%, to 53.5 million tonnes from the previous crop year's 50.1 million tonnes.<sup>2</sup> [Table 1A-1]

### Provincial Distribution

Increased grain production was reported in all provinces except Manitoba. Saskatchewan led with a 4.1-million-tonne, or 18.1%, gain in production tonnage, which expanded to 26.7 million tonnes from 22.6 million tonnes a year earlier. Alberta followed with a 1.4-million-tonne increase, which saw the province's production climb to a Grain Monitoring Program (GMP) record of 20.8 million tonnes. Adding to this was a virtual doubling of the production in British Columbia, which rose to 328,200 tonnes from 141,100 tonnes.

1 The 2011 growing season marked a second consecutive year where excessive moisture resulted in a large number of acres going unseeded. A year earlier, a total of 10.5 million acres went unseeded.

2 Total crop production was reported in the Monitor's preceding quarterly reports as 52.4 million tonnes. Owing to subsequent revisions, this value was later raised by Statistics Canada to 53.5 million tonnes.

Figure 1: Precipitation Compared to Historical Distribution (1 April to 31 August 2011)

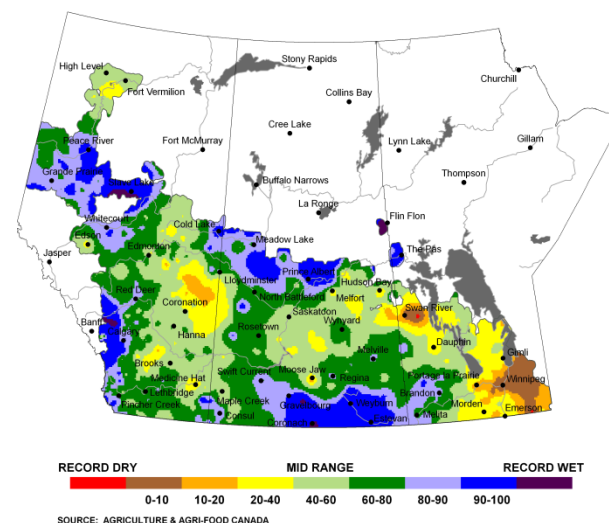
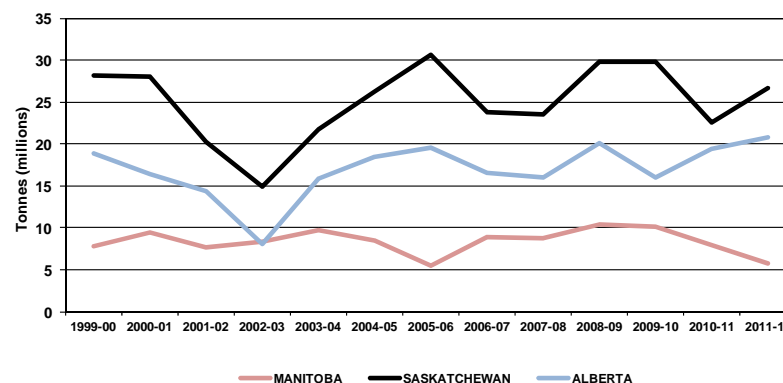


Figure 2: Provincial Grain Production



Running counter to these tonnage gains was a 27.9% reduction for Manitoba, which saw production fall to 5.7 million tonnes from 7.9 million tonnes a year earlier. This downturn, which resulted in Manitoba's second smallest harvest under the GMP, was due in large measure to the adverse effects of severe flooding, particularly in the southwestern section of the province.<sup>3</sup>

### Commodity Distribution

The 2011 growing season saw increased production for a number of crops. Canadian Wheat Board (CWB) grains posted the most significant gain, with an increase of 7.6% as compared to 6.1% for non-CWB grains. With total CWB grain production rising to 30.1 million tonnes from 28.0 million tonnes a year earlier, this sector accounted for about two thirds of the net increase in production. The gain derived from non-CWB grain production, which rose to 23.4 million tonnes from the previous crop year's 22.0 million tonnes, amounted to another 1.4 million tonnes.

The 2.1-million-tonne expansion in CWB-grain production was largely shaped by a 37.9% increase in the amount of durum harvested, which rose to 4.2 million tonnes from 3.0 million tonnes a year earlier. This was augmented by the effects of a 2.9% increase in wheat production, which saw output rise to 18.5 million tonnes from 18.0 million tonnes the previous year. A 6.4% increase for barley raised production to 7.4 million tonnes from 7.0 million tonnes.

With 14.5 million tonnes of production, canola accounted for almost two thirds of the 23.4 million tonnes of non-CWB grains harvested in the 2011-12 crop year. The 1.8-million-tonne gain in canola was complemented by a 733,000-tonne increase in oat production, which rose

<sup>3</sup> Although Manitoba has often experienced flooding of the Red and Assiniboine Rivers in the spring, an unusually heavy snowfall led to a severe flooding of the Assiniboine River in 2011. Described as a once-in-300-year event, the flood significantly affected crop production in the western part of the province. Flooding of the Souris River, which flows into the Assiniboine River, only aggravated the situation, prompting a second cresting of the Assiniboine River flood.

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

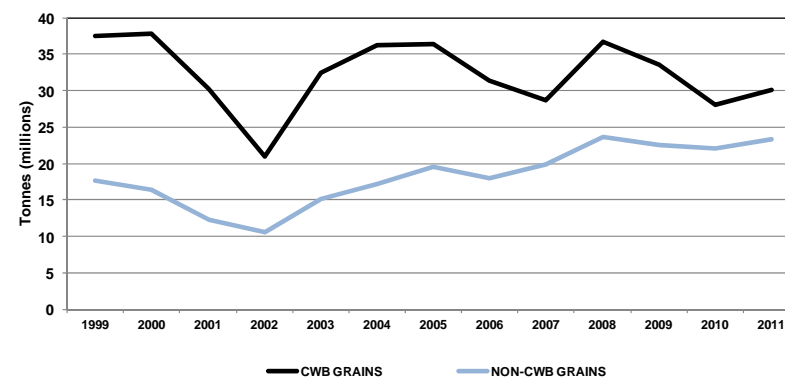
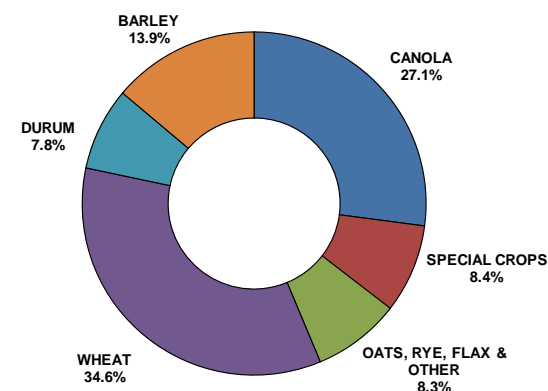


Figure 4: Major Grain Production - 2011-12 Crop Year



to 2.8 million tonnes from 2.1 million a year earlier. However, these gains were largely offset by a 1.2-million-tonne decline in the output of other non-CWB grains, the most notable being dry peas.

### Special Crops

Despite the increase in non-CWB grain production, that of special crops declined sharply.<sup>4</sup> Total output for the sector amounted to 4.5 million tonnes, down 20.3% from the 5.6 million tonnes reported a year earlier. This 1.1-million-tonne reduction was reflective of equally steep declines in the output of its individual constituents, with the most significant being tied to dry peas – the sector’s largest single crop – which posted a 17.1% decrease, and fell to 2.5 million tonnes from 3.0 million tonnes a year earlier. A sizable loss was also noted for lentils, which fell to 1.5 million tonnes from 1.9 million tonnes. Enlarging this were the losses for a host of other commodities, including mustard seed, canary seed, chickpeas, dry beans and sunflower seed. [Table 1A-3]

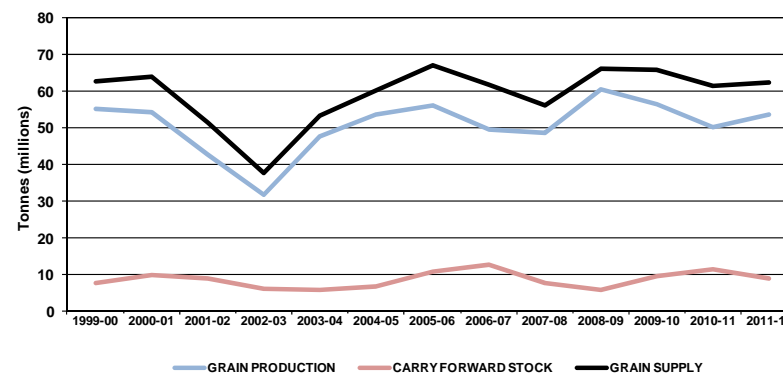
### Carry-Forward Stock and Western Canadian Grain Supply

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>5</sup> These stocks tend to move in conjunction with changes in grain production, albeit on a lagging basis.

4 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.

5 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



Totalling some 8.6 million tonnes, these stocks proved to be 23.0% less than the 11.2 million tonnes that had been carried forward a year earlier. Much of the impetus for this 2.6-million-tonne reduction came from the decline in the previous year’s production as well as a continuing strong demand for Canadian export grain. When combined with 53.5 million tonnes of new production, the grain supply reached 62.2 million tonnes. This embodied an increase of 1.5% over the previous crop year’s 61.3 million tonnes. [Table 1A-2]

With a 2.8-million-tonne reduction in carry-forward stocks, Saskatchewan posted the most substantive decline. This was widened by a 323,500-tonne decrease in Manitoba’s stocks. Only Alberta, which reported a stock increase of 534,500 tonnes, provided an offset to these reductions. With the exception of wheat, the carry-over for all major grain stocks moved sharply lower.

## Section 2: Traffic and Movement

Indicator Description	Table	2011-12								
		1999-00	2009-10	2010-11	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Throughput</b>										
Grain Throughput (000 tonnes) - Primary Elevators	2A-1	32,493.9	33,861.4	32,270.4	8,984.1	9,416.1	9,489.9	7,448.6	35,338.7	9.5%
<b>Railway Traffic</b>										
Railway Shipments (000 tonnes) - All Grains	2B-1	26,439.2	28,443.8	28,007.8	8,152.6	7,433.5	7,422.9	6,252.8	29,261.9	4.5%
Railway Shipments (000 tonnes) - Hopper Cars	2B-1	25,664.6	27,777.8	27,096.7	7,909.8	7,156.6	7,104.9	5,981.6	28,152.9	3.9%
Railway Shipments (000 tonnes) - Non-Hopper Cars	2B-1	774.7	666.0	911.1	242.8	277.0	318.0	271.2	1,109.0	21.7%
Special Crop Shipments (000 tonnes) - All Grains	2B-2	2,102.9	2,718.9	3,524.7	1,047.1	487.0	581.6	507.8	2,623.4	-25.6%
Special Crop Shipments (000 tonnes) - Hopper Cars	2B-2	1,844.1	2,665.3	3,480.6	1,010.6	450.1	544.8	471.0	2,476.5	-28.8%
Special Crop Shipments (000 tonnes) - Non-Hopper Cars	2B-2	258.7	53.5	44.2	36.5	36.9	36.8	36.8	147.0	232.9%
Hopper Car Shipments (000 tonnes) - Origin Province	2B-3									
Hopper Car Shipments (000 tonnes) - Primary Commodities	2B-4	25,664.6	27,777.8	27,096.7	7,909.8	7,156.6	7,104.9	5,981.6	28,152.9	3.9%
Hopper Car Shipments (000 tonnes) - Detailed Breakdown	2B-5									
Hopper Car Shipments (000 tonnes) - Grain-Dependent Network	2B-6	8,685.9	8,741.9	7,672.8	2,357.5	2,144.4	2,180.7	1,808.3	8,490.9	10.7%
Hopper Car Shipments (000 tonnes) - Non-Grain-Dependent Network	2B-6	16,978.7	19,035.9	19,423.8	5,552.3	5,012.2	4,924.2	4,173.3	19,662.0	1.2%
Hopper Car Shipments (000 tonnes) - Class 1 Carriers	2B-7	23,573.5	26,945.8	26,145.6	7,653.9	6,845.1	6,825.8	5,704.6	27,029.3	3.4%
Hopper Car Shipments (000 tonnes) - Non-Class-1 Carriers	2B-7	2,091.0	832.0	951.0	255.9	311.5	279.1	277.1	1,123.6	18.1%
<b>Terminal Elevator Throughput</b>										
Grain Throughput (000 tonnes) - All Commodities	2C-1	23,555.5	25,760.4	25,428.1	7,099.2	7,090.4	6,496.8	6,210.5	26,896.9	5.8%
Hopper Cars Unloaded (number) - All Carriers	2C-2	278,255	286,630	283,101	83,388	79,683	72,723	59,603	295,397	4.3%
Hopper Cars Unloaded (number) - CN	2C-2	144,800	144,894	151,554	38,661	41,815	39,558	31,756	151,790	0.2%
Hopper Cars Unloaded (number) - CP	2C-2	133,455	141,736	131,547	44,727	37,868	33,165	27,847	143,607	9.2%

### COUNTRY ELEVATOR THROUGHPUT

Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, increased by 9.5% in the 2011-12 crop year, rising to 35.3 million tonnes from 32.3 million tonnes a year earlier. Although the majority of producing provinces reported sharply higher throughputs, these varied greatly.

With a gain of 2.1 million tonnes, Alberta’s throughput rose to 13.6 million tonnes from 11.5 million tonnes a year earlier. Saskatchewan followed with a 12.6% increase in shipments, which rose to 17.2 million tonnes from 15.3 million tonnes. Countering some of these gains was a 21.8% decrease for Manitoba, which reported that primary-elevator shipments fell to 4.2 million tonnes from 5.4 million tonnes a year earlier. [Table 2A-1]

### RAILWAY TRAFFIC

The amount of regulated grain moved by rail to western Canadian ports in the 2011-12 crop year also set a new GMP record, increasing by 4.5%, to 29.3 million tonnes from 28.0 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 28.2 million tonnes, moved in covered hopper cars. The remaining 1.1 million tonnes moved in a combination of boxcars and containers for bulk and bagged grain shipments, as well as tankcars for export canola oil. These latter movements represented comparatively small fraction of total railway shipments, with their share rising to 3.8% from the 3.3% earned a year earlier. [Table 2B-1]

Special-crop shipments for the crop year amounted to 2.6 million tonnes, encompassing a drop of 25.6% against the 3.5 million tonnes shipped a year earlier. Given its dominance, the reduction closely mirrored a 28.8% decline in hopper-car shipments. A 232.9% increase in non-hopper-car shipments (boxcars, containers and tankcars) saw its share of the overall movement rise to 5.6% from 1.3% a year earlier. [Table 2B-2]

Figure 6: Primary Elevator Throughput

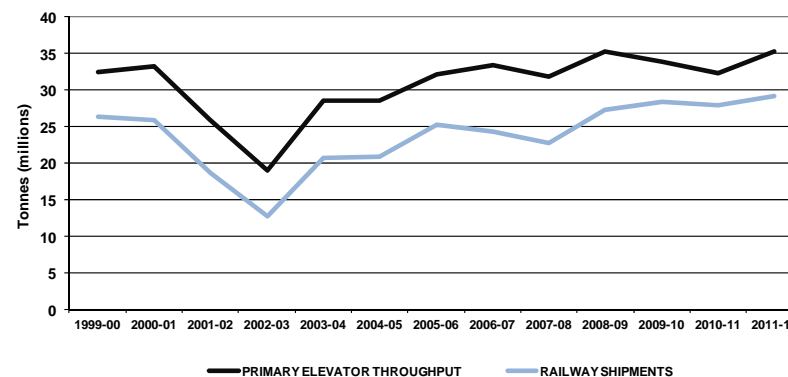
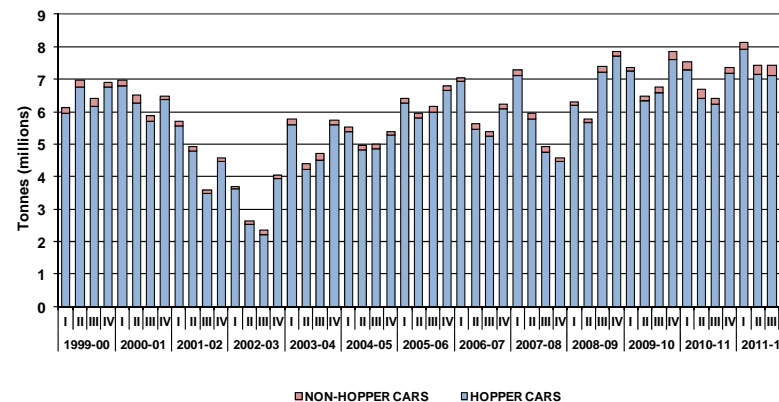


Figure 7: Railway Shipments - Hopper and Non-Hopper Cars



### Hopper Car Movements

Western Canadian hopper-car shipments reached a GMP record of 28.2 million tonnes in the 2011-12 crop year, a gain of 3.9% over the 27.1 million tonnes handled a year earlier. This proved to be somewhat less than the 6.0% increase in grain production but substantially above the 1.5% increase in the overall grain supply.

Much of this result was shaped by a 2.0-million-tonne increase in shipments from Alberta, which grew by 18.6% to 13.0 million tonnes. This constituted a second consecutive record for shipments from the province under the GMP. Supporting this was a 140,200-tonne increase in shipments from Saskatchewan, which rose by just 1.1% to 12.9 million tonnes. However, these gains more than offset a 34.6% reduction in shipments from Manitoba, which fell to 2.0 million tonnes from 3.1 million tonnes a year earlier. A 13.9% reduction was also posted by British Columbia, which saw its shipments for the year slip to 233,100 tonnes from 270,600 tonnes. [Tables 2B-3 through 2B-5]

While the volume of grain directed into the GHTS is largely shaped by the grain supply, its movement is constrained by the railways' available carrying capacity. This is defined by more than just the number of hopper cars allocated to moving grain, and ultimately reflects several other resource constraints, including the availability of motive power and crews. Equally important is the efficacy with which these resources are employed. For a given fleet of hopper cars, this links volume gains to improvements in productivity. Although a portion of the incremental volume gain stems from a 30% reduction in the average car cycle, there has also been a contribution from heavier carloadings as well. While the railways' shift towards larger hopper cars has been a factor in this, a sizeable gain also came from the upgrading of the government-owned fleet.<sup>6</sup> As a result, the average payload for a car of grain has risen by 3.4%, to 88.9 tonnes from a benchmark 85.9 tonnes in the base year.

6 In 2007 the Government of Canada concluded new agreements with CN and CP for the operation of its government-owned fleet of covered hopper cars. A key provision in these

Figure 8: Railway Hopper Car Shipments - Destination Port

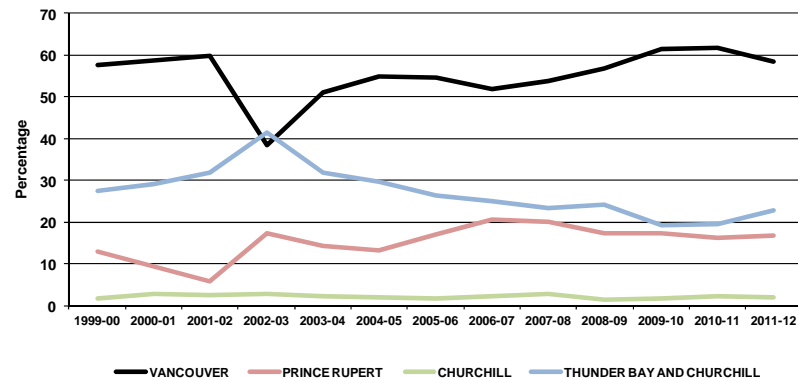
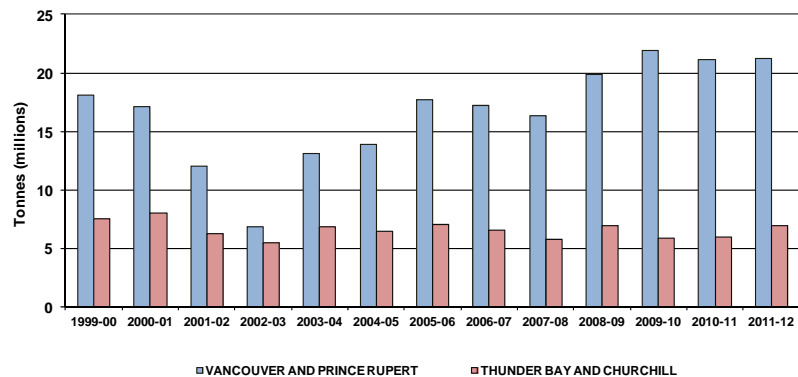


Figure 9: Railway Hopper Car Shipments - West-Coast Orientation



agreements was the requirement that both carriers physically refurbish the cars, and raise the maximum load limit to 286,000 pounds from 263,000 pounds.



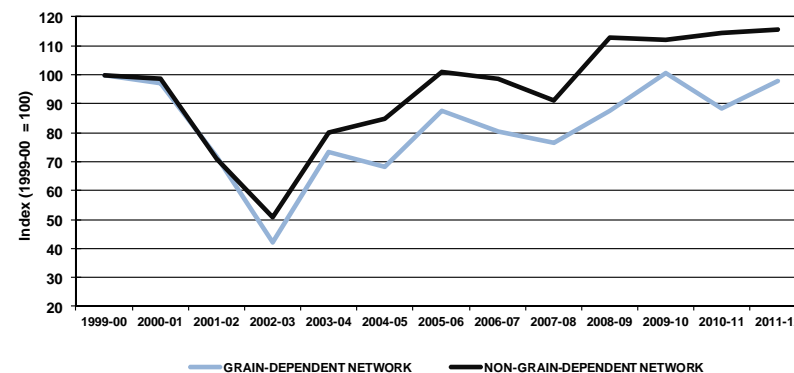
## Destination Ports

The port of Vancouver remained the principal export destination for western Canadian grain in the 2011-12 crop year. However, traffic to Vancouver fell by 1.4%, to 16.5 million tonnes from the 16.7 million tonnes directed there a year earlier. Moreover, the port's share of railway shipments also declined, falling to 58.6% from 61.7%. In comparison, Prince Rupert posted a 6.4% increase in railway shipments, with volume climbing to 4.7 million tonnes from 4.4 million tonnes. This 284,400-tonne gain also helped to accord the port a modestly greater share of the overall movement, which rose to 16.8% from 16.4%. Although these west coast ports received the majority of the grain moved to export position, their combined share fell to 75.4% from 78.1% a year earlier.

This decline in the share accorded to the west-coast ports was mainly attributable to larger shipments of grain into Thunder Bay. In fact, stronger market conditions, which heightened CWB-grain shipments, helped lift rail deliveries to 6.4 million tonnes. This marked a 20.9% increase over the 5.3 million tonnes shipped to Thunder Bay a year earlier. As a result, the port's share of total railway hopper-car shipments rose to 22.7% from 19.5%. In contrast, rail shipments to Churchill decreased by 16.9%, falling to 528,000 tonnes from 635,700 tonnes the year before. This also resulted in a traffic-share reduction, which decreased to 1.9% from 2.3%.

The dominance of the west-coast ports is deeply rooted in Canada's Asia-Pacific grain trade. And while there can be little doubt that freight rates and the allocation of railcars have had some influence over the comparative use of both Vancouver and Prince Rupert at various points in time, the amount of grain exported through these west-coast ports continues to reflect the strong demand for Canadian grain in markets such as China and Japan. Nor does it appear that the role accorded to the west-coast ports will soon diminish, given that about half of Canada's grain exports are directed to markets in the Asia-Pacific region.

Figure 10: Hopper Car Shipments - Change in Network Originations



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

The effect of both elevator and railway rationalization continues to manifest itself in changes to the railways' traffic mix. In the 2011-12 crop year, the tonnage originated by the non-grain-dependent network increased by just 1.2%, to 19.7 million tonnes from 19.4 million tonnes a year earlier. At the same time, traffic originating at points on the grain-dependent network rose by a more substantive 10.7%, to 8.5 million tonnes from 7.7 million tonnes.

As these results suggest, the non-grain-dependent network continues to garner a larger share of the overall traffic volume. With the close of the 2011-12 crop year, 69.8% of all the grain originated in western Canada was forwarded from points on the non-grain-dependent network. Even so, this value stands only marginally ahead of the 66.2% share 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 fell to 30.2% from 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 increased by 3.4% in the 2011-12 crop year, to 27.0 million tonnes from 26.1 million tonnes. In the case of the non-Class-1 carriers, the gain was a more substantive 18.1%, with volume climbing to 1.1 million tonnes from 951,000 tonnes a year earlier. Much of this increase was attributable to the start-up of Big Sky Rail, a Saskatchewan-based shortline established in September 2011.

Despite the launch of several such shortline-railway ventures in recent years, the comparative volume originated by non-Class 1 carriers has declined fairly significantly over the course of the GMP. In the 2011-12 crop year their share of total originated traffic amounted to just 4.0%, less than half of the 8.1% share benchmarked in the GMP's base year. [Table 2B-7]

Even so, the traffic originated by shortline railways has not fallen as sharply as the number of licensed elevators served by them, which were reduced by 70.7% in the same period. In fact, the data indicates that increased producer-car loading has helped replace a significant portion of the traffic lost following the closure of these facilities. Current estimates indicate that producer-car loading now accounts for about two-thirds of their total grain shipments; somewhat more than four times the share accorded to them in the first year of the GMP.

### TERMINAL ELEVATOR THROUGHPUT

Port throughput, as measured by the volume of grain shipped from the terminal elevator and bulk loading facilities located at Canada's four western ports, totalled 26.9 million tonnes in the 2011-12 crop year. As with railway shipments, this denoted a new volume record under the GMP, easily surpassing the former record of 25.8 million tonnes set just two years earlier by 4.4%. [Table 2C-1]

Figure 11: Hopper Car Shipments - Change in Railway Originations

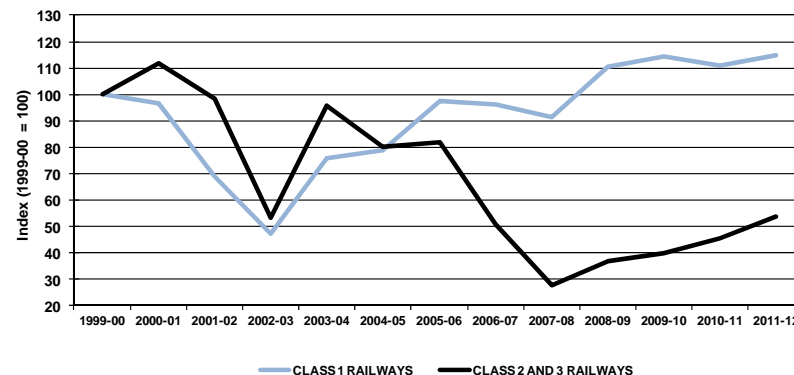
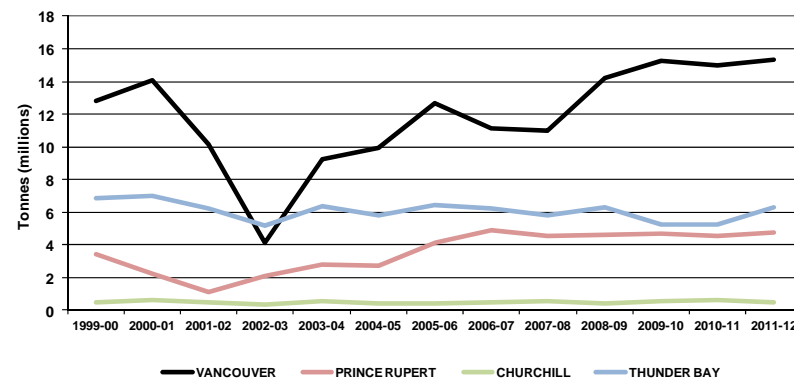


Figure 12: Terminal Elevator Throughput



Throughput increases were posted by three of the GHTS's four western ports. For the largest of these, Vancouver, total marine shipments increased by 2.4%, to 15.3 million tonnes from 15.0 million tonnes a year earlier. This represented 56.9% of the system's total throughput. Prince Rupert posted a marginally greater expansion, with shipments rising by 4.7%, to 4.7 million tonnes from 4.5 million tonnes. When combined, the tonnage passing through these two west coast ports represented 74.6% of the overall total, a marginal reduction from the 76.6% share they garnered a year earlier.

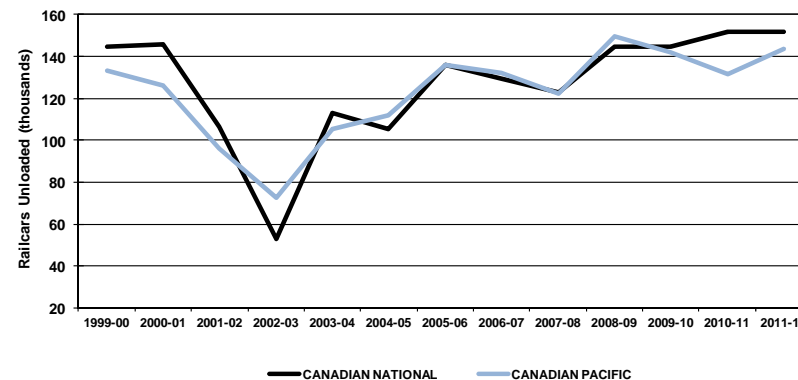
Of course, the decline posted by the west coast ports was reflected in a gain for the GHTS's other two ports. The combined share secured by the ports of Thunder Bay and Churchill in the 2011-12 crop year rose to 25.4% from 23.4% a year earlier. Much of this gain was driven by a sharp upturn in shipments through Thunder Bay, which increased by 19.6%, to 6.3 million tonnes from 5.3 million tonnes. Conversely, Churchill, the port with traditionally the lowest volume, saw its throughput decrease by 21.7%, to 515,100 tonnes from 657,500 tonnes.

### Terminal Elevator Unloads

The number of covered hopper cars unloaded at terminal elevators increased by 4.3% in the 2011-12 crop year, to 295,397 cars from 283,101 cars a year earlier. Even so, there was a pronounced shift in the number of cars unloaded by the Canadian National Railway (CN) and the Canadian Pacific Railway (CP). In the case of CN, the number of cars unloaded rose by just 0.2%, to 151,790 from 151,554. Comparatively, CP's handlings climbed by a more substantive 9.2%, to 143,607 cars from 131,547. Even so, CN remained the largest grain handling railway in western Canada, with a share of 51.4% against 48.6% for CP.

Both Vancouver and Prince Rupert benefited from the broader increase in grain shipments. Traffic destined to Vancouver increased by just 1.8%, with 173,381 cars unloaded versus 170,305 cars a year earlier. Of particular interest was the relative division between CN and CP, with the former carrier's handlings into the port falling by 11.0% in the face of the

Figure 13: Terminal Elevator Unloads - Delivering Carrier



latter's 13.4% increase. To a large extent, the rebound in CP's handlings into Vancouver was indicative of the carrier's having overcome the service problems that had plagued it a year earlier. Even so, the memory of these problems may well have exercised some sway over the amount of grain directed by grain companies and the CWB to Prince Rupert, which rose by a more substantive 9.1%, to 52,233 cars from 47,861 cars a year earlier.

But the largest relative gain in traffic was posted by Thunder Bay, which saw its handlings climb by 10.6%, to 64,067 cars from 57,940 cars a year earlier. Much of this expansion stemmed from a substantive increase in the amount of domestic canola being moved through the port, which also tended to favour CN as opposed to CP. Consequently, CN's handlings into Thunder Bay rose by 34.3%, to 23,139 cars from 17,229 cars a year earlier. In comparison, CP registered an increase of just 0.5%, with 40,928 cars unloaded against 40,711 cars the previous year. Running counter to this was Churchill, which reported an 18.3% reduction in volume, with handlings of 5,716 cars versus 6,995 cars a year earlier. [Table 2C-2]

## Section 3: Infrastructure

Indicator Description	Table	2011-12								
		1999-00	2009-10	2010-11	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Infrastructure</b>										
Delivery Points (number)	3A-1	626	274	273	277	277	276	271	271	-0.7%
Elevator Capacity (000 tonnes)	3A-1	7,443.9	6,343.3	6,369.4	6,653.8	6,683.2	6,714.0	6,739.7	6,739.7	5.8%
Elevators (number) - Province	3A-1	917	366	366	392	390	392	386	386	5.5%
Elevators (number) - Railway Class	3A-2									
Elevators (number) - Grain Company	3A-3									
Elevators Capable of MCB Loading (number) - Province	3A-4	317	243	241	248	248	248	246	246	2.1%
Elevators Capable of MCB Loading (number) - Railway Class	3A-5									
Elevators Capable of MCB Loading (number) - Railway Line Class	3A-6									
Elevator Closures (number)	3A-7	130	21	13	21	24	32	39	39	200.0%
Elevator Openings (number)	3A-8	43	20	13	47	48	58	59	59	353.8%
Delivery Points (number) - Accounting for 80% of Deliveries	3A-9	217	90	85	n/a	n/a	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	17,830.3	17,830.3	17,830.3	17,830.3	17,830.3	17,830.3	0.0%
Railway Infrastructure (route-miles) - Class 1 Network	3B-1	14,503.0	15,403.7	15,249.5	15,029.0	15,029.0	15,029.0	15,029.0	15,029.0	-1.4%
Railway Infrastructure (route-miles) - Non-Class-1 Network	3B-1	4,887.1	2,501.0	2,580.8	2,801.3	2,801.3	2,801.3	2,801.3	2,801.3	8.5%
Railway Infrastructure (route-miles) - Non-Grain-Dependent Network	3B-1	14,513.5	14,313.1	14,245.1	14,245.1	14,245.1	14,245.1	14,245.1	14,245.1	0.0%
Railway Infrastructure (route-miles) - Grain-Dependent Network	3B-1	4,876.6	3,591.6	3,585.2	3,585.2	3,585.2	3,585.2	3,585.2	3,585.2	0.0%
Served Elevators (number)	3B-3	884	347	349	362	359	362	358	358	2.6%
Served Elevators (number) - Class 1 Carriers	3B-3	797	327	320	337	334	337	334	334	4.4%
Served Elevators (number) - Non-Class-1 Carriers	3B-3	87	20	29	25	25	25	24	24	-17.2%
Served Elevators (number) - Grain-Dependent Network	3B-3	371	118	117	115	115	116	115	115	-1.7%
Served Elevators (number) - Non-Grain-Dependent Network	3B-3	513	229	232	247	244	246	243	243	4.7%
Served Elevator Capacity (000 tonnes)	3B-3	7,323.0	6,254.7	6,290.7	6,504.0	6,532.2	6,565.0	6,602.4	6,602.4	5.0%
Served Elevator Capacity (000 tonnes) - Class 1 Carriers	3B-3	6,823.2	6,130.8	6,119.0	6,334.1	6,362.2	6,387.1	6,428.0	6,428.0	5.0%
Served Elevator Capacity (000 tonnes) - Non-Class-1 Carriers	3B-3	499.7	123.9	171.7	170.0	170.0	178.0	174.4	174.4	1.6%
Served Elevator Capacity (000 tonnes) - Grain-Dependent Network	3B-3	2,475.4	1,742.7	1,755.6	1,809.7	1,821.7	1,848.0	1,868.2	1,868.2	6.4%
Served Elevator Capacity (000 tonnes) - Non-Grain-Dependent Network	3B-3	4,847.6	4,512.0	4,535.1	4,694.3	4,710.5	4,717.0	4,734.2	4,734.2	4.4%
<b>Terminal Elevator Infrastructure</b>										
Terminal Elevators (number)	3C-1	15	15	15	15	15	15	16	16	6.7%
Terminal Elevator Storage Capacity (000 tonnes)	3C-1	2,678.6	2,475.6	2,475.6	2,429.0	2,429.0	2,198.8	2,213.8	2,213.8	-10.6%

**COUNTRY ELEVATOR INFRASTRUCTURE**

The decline in the number of licensed country elevators in western Canada remains one of the most visible facets of the GHTS's continuing evolution. At the outset of the 1999-2000 crop year, there were 1,004 licensed primary and process elevators on the prairies. Over the course of the next twelve years, this network would shrink to a third of its former size, to encompass a much fewer 366 facilities at the close of the 2010-11 crop year.<sup>7</sup> [Table 3A-1]

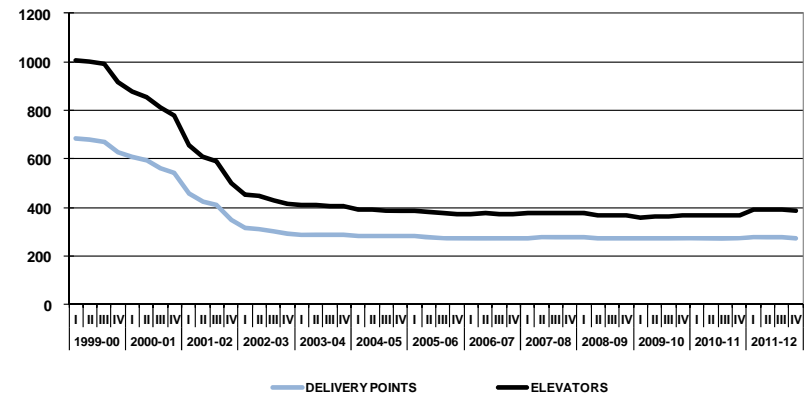
In the first three years of the GMP, this reduction proved quite rapid: with 87 facilities removed from the network in its first year; 136 in its second; and 281 in its third. But this accelerating pace clearly began to abate in the 2002-03 crop year, when only 84 elevators were removed from the system.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

Yet the 2011-12 crop year saw a noticeable upturn in what had been a fairly progressive decline, with the elevator network gaining an additional 20 facilities. However, it must be noted that this 5.5% increase was chiefly the product of a change in the licensing requirements of the Canadian Grain Commission (CGC) rather than in the elevator network itself. Even so, this raised the total number of elevators in western Canada to 386, and reduced the accumulated loss since the beginning of the GMP to 618 facilities, or 61.6%. Although the scope of the changes witnessed over the course of the past few years continues to suggest that grain-elevator rationalization has largely concluded, it remains to be seen whether the planned modification of the CWB's mandate may induce the grain companies into making still other adjustments.

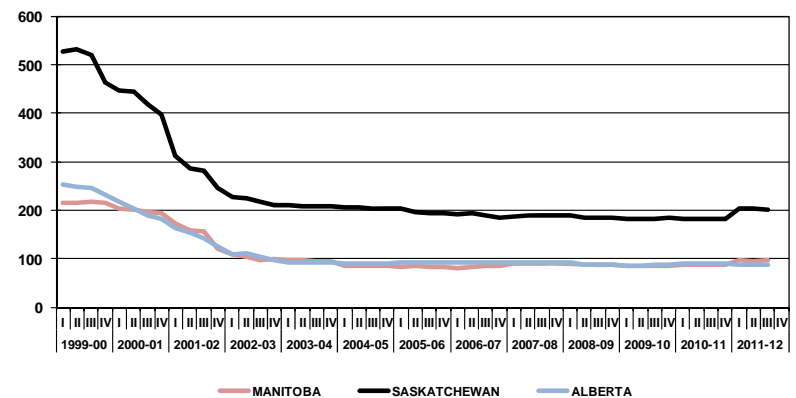
Much the same is true of the decline in grain delivery points, which have largely fallen in conjunction with the reduction in licensed elevators. By the close of the 2010-11 crop year the scope of this network had been reduced by 60.1%, to 273 delivery points from the 685 that had been in

<sup>7</sup> The reduction cited here reflects the net change in licensed elevators.

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



**Figure 15: Licensed Grain Elevators - Provincial Distribution**



place at the beginning of the GMP. This count decreased marginally in the 2011-12 crop year, with the overall number falling by two to 271. This served to enlarge the net reduction in delivery points during the GMP to 60.4%.

### Provincial Distribution

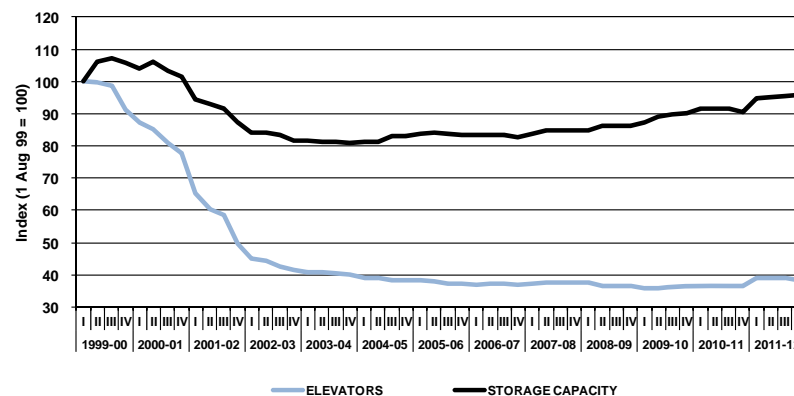
With the close of the 2011-12 crop year, 197 of western Canada's licensed elevators were situated in Saskatchewan. These facilities constituted 51.0% of the system's active total; a proportion similar to that held by the province at the beginning of the GMP. This was followed by Manitoba and Alberta, whose corresponding 95 and 88 elevators accounted for shares of 24.6% and 22.8% respectively. The GHTS's remaining six facilities were divided between British Columbia, with five, and Ontario, with one.

Over the term of the GMP, Saskatchewan posted the greatest reduction in licensed elevation facilities, closing 330, or 62.6%, of its elevators. In comparative terms, the 164-elevator reduction in Alberta represented a slightly greater 65.1%. Manitoba followed with a 56.0%, or 121-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 61.6% decline in the overall number of elevators, the network's storage capacity stands only 4.1% below the 7.0 million tonnes recorded at the outset of the GMP. This differential reflects the character of the tactical transformation that had taken place: that the grain companies were substituting the handling capacity inherent in their existing wood-crib elevators with that provided by a lesser number of more efficient high-throughput facilities. In fact, the capacity added through their investment in these larger facilities temporarily outpaced that removed by the closure of older elevators early in the GMP, raising the system's total storage capacity to a level of almost 7.6 million tonnes. But soon the reverse became true, and by the close of the 2003-04 crop year total

Figure 16: Change in Licensed Elevators and Storage Capacity



GHTS storage capacity had fallen by 19.0%, to reach a low of 5.7 million tonnes.

As elevator closures began to moderate, this trend was again reversed. Marked by a 157,000-tonne expansion in the 2004-05 crop year, the system's total storage capacity began to increase steadily. By the close of the 2010-11 crop year, it had risen to almost 6.4 million tonnes. With further expansion as well as changes in the licensing requirements of the CGC, another 370,300 tonnes of storage capacity was added in the 2011-12 crop year. This 5.8% gain effectively raised total storage capacity to slightly more than 6.7 million tonnes, a value not seen since the close of the 2000-01 crop year.

### Facility Class

For comparative purposes, the GMP groups elevators into four classes. These classes are based on the loading capability of each facility, which is in turn defined by the number of railcar 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>8</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 has changed significantly over the course of the GMP. The most striking aspect has been the 80.3% decline in the number of Class A facilities, which dropped to 139 from the 705 in place at the beginning of the GMP. This was followed closely by a 70.0% reduction in Class B facilities, which fell to 54 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 2.5%, to 83 from 81, while the number of Class D facilities almost tripled, rising to 110 from 38.

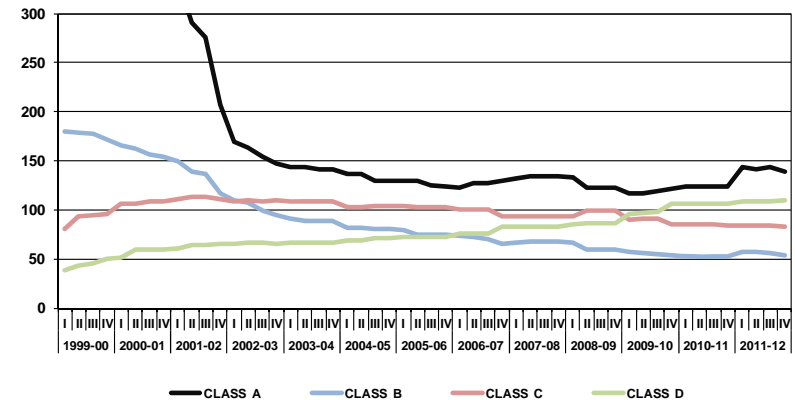
These statistics illustrate that the primary target in elevator rationalization has been the conventional wood-crib facility. Of the 950 elevator closures recorded since the beginning of the GMP, 724 related to the shutdown of Class A facilities.<sup>9</sup> To a large extent, this was because the economic efficiency of the high-throughput elevator had rendered these facilities obsolete. But they had also been undermined by the 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

<sup>8</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>9</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.

Figure 17: Licensed Elevators - Facility Class



not as generous as those accorded shipments from high-throughput elevators. These small-block discounts were later reduced and ultimately eliminated.<sup>10</sup> As a result, over the course of the GMP, a total of 155 Class B facilities also closed. Together, Class A and B facilities account for 92.5% of all recorded elevator closures. [Table 3A-7]

In contrast to their share of closures, only 211 of the 332 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, 36.4% versus 7.5% respectively. Class C and D elevators were the only ones to have posted net increases since the 1999-2000 crop year. [Table 3A-8]

<sup>10</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.



Since the close of the 2008-09 crop year, approximately half of the GTHS's elevators have been comprised of high-throughput facilities. More importantly, these facilities have claimed the lion's share of the system's storage capacity since the second year of the GMP. Although the proportions for high-throughput facilities declined marginally in the 2011-12 crop year, to 50.0% of system elevators and 78.9% of its storage capacity, both remained significantly above their respective base-year values of 11.9% and 39.4%.

### 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 large physical networks. In fact, the largest grain companies proved to be the primary practitioners of elevator rationalization.

The predecessors of today's Viterria Inc. posted what amounts to the deepest overall reduction, with a net decrease of 605 facilities, or 86.4%, through the close of the 2011-12 crop year.<sup>11</sup> Richardson International and Cargill posted the next deepest cuts, with elevator reductions of 49.5% and 47.5% respectively. This was complemented by Paterson Grain, with a 30.0% decrease, as well as Parrish and Heimbecker, with a 23.1% reduction. [Table 3A-3]

Elevator closures have abated significantly since the creation of Viterria 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

<sup>11</sup> Viterria 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, Viterria Inc. is the corporate successor to the three largest grain companies in existence at the beginning of the GMP. The 604 closures cited here represent the net reduction posted by Viterria's predecessor companies, which had a combined total of 700 elevators at the outset of the GMP.

Figure 18: Change in Licensed Elevators - Grain Company

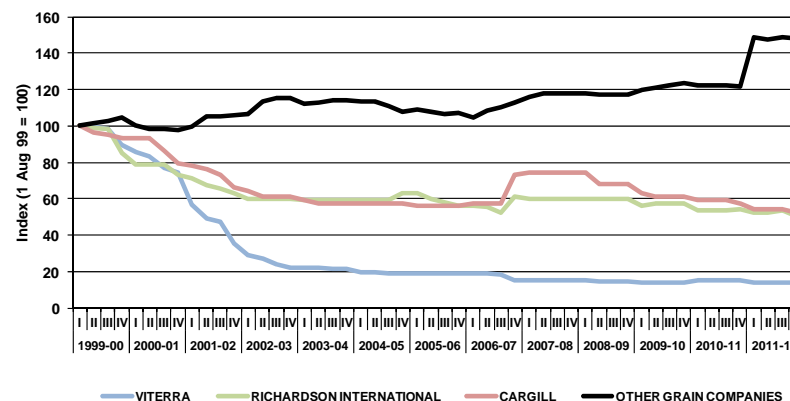
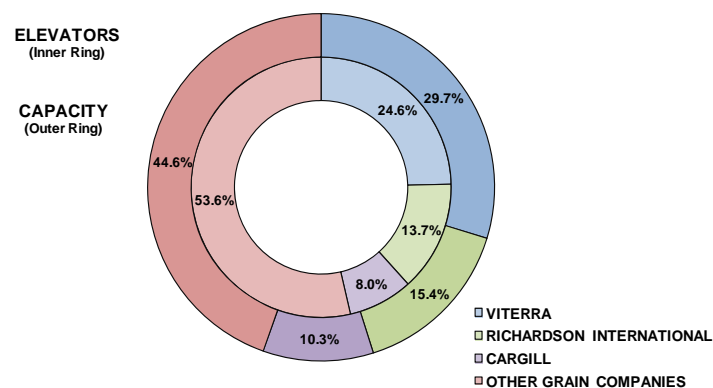


Figure 19: Licensed Elevators and Capacity - 2011-12 Crop Year



crop year. However, much of the subsequent increase is misleading, since it largely reflects changes in the licensing requirements of the CGC rather than in the actual addition of new elevators. A number of companies, including Alliance Pulse Processors Inc., Simpson Seeds Inc. and Legumex-Walker Inc., figure prominently in this expansion since most - if not all - of their facilities had previously been unlicensed. Nevertheless, there has been a 151.8% increase in the number of elevators operated by smaller grain companies, which has climbed to 141 from 56.

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

This concentration is also reflected in the way grain is gathered into the system, with the vast majority of the grain being collected through fewer than half of the GHTS's delivery points. In the 2010-11 crop year - the last for which statistics are available - 85 of the GHTS's 219 active delivery points took in 80% of the grain delivered. Although this 38.8% share is greater than the 33.5% recorded in the GMP's base year, it still suggests that deliveries remain highly concentrated within the smaller grain-gathering network. [Table 3A-9]

## RAILWAY INFRASTRUCTURE

At the outset of the 1999-2000 crop year, the railway network in western Canada encompassed 19,468.2 route-miles of track. Of this, Class 1 carriers operated 76.2%, or 14,827.9 route-miles, while the smaller Class 2 and 3 carriers operated the remaining 23.8%, or 4,640.3 route-miles.<sup>12</sup> Although the railway network has contracted, the reduction has proven

12 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.

substantially less than that of the elevator system it serves. By the end of the 2010-11 crop year, the net reduction in western Canadian railway infrastructure amounted to just 8.4%, with the network's total mileage having been reduced to 17,830.3 route-miles overall. The largest share of this 1,637.9-route-mile reduction came from the abandonment of 1,369.5 route-miles of light-density, grain-dependent branch lines.<sup>13</sup> [Table 3B-1]

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

The first important variation in this restructuring strategy came in 2004 when CN acquired the operations of what was then western Canada's only Class 2 carrier, BC Rail Ltd. In addition, the waning financial health of most shortline carriers led many to either rationalize or sell their own operations. Ultimately, this resulted in a number of shortlines being reabsorbed into the operations of the Class 1 carrier that had originally spun them off.<sup>14</sup> By the close of the 2010-11 crop year, the network operated by the Class 1 carriers had actually increased 2.8%, to 15,249.5 route-miles, whereas that of the Class 2 and 3 carriers had declined by 44.4%, to 2,580.8 route miles.

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

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

Still, many of these shortlines had been established with an eye towards preserving railway service on what the Class 1 carriers had come to regard as uneconomic branch lines. While many of these branch lines were grain dependent, most shortlines proved incapable of reshaping the economics that had given rise to the grain industry’s broader elevator-rationalization programs. Although these carriers could point to some success in attracting new business - much of which has been tied to increased producer-car loading - they ultimately could not prevent the grain companies from closing the smaller elevators that underpinned their commercial activity. In the face of several resultant business failures, the physical span of the prairie shortline network had contracted to less than half of the 2,011.0 route-miles that it had been at the outset of the GMP, ultimately falling to a low of 1,002.5 route-miles midway through the 2007-08 crop year.<sup>15</sup>

Notwithstanding this decline, the shortline industry was beginning to show signs of resurgence. Much of this could be traced back to the successful takeover of the Great Western Railway by a consortium of local municipal and business interests in 2004. Their model, which essentially integrated the railway’s operations with local producer-car loading activity, fostered imitation. By the close of the 2010-11 crop year, another six shortline railways had been established across the prairies.<sup>16</sup> Four of these were based in Saskatchewan, where the provincial government proved more receptive to providing financial assistance.<sup>17</sup>

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

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

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

Figure 20: Change in Route-Miles - Railway Class

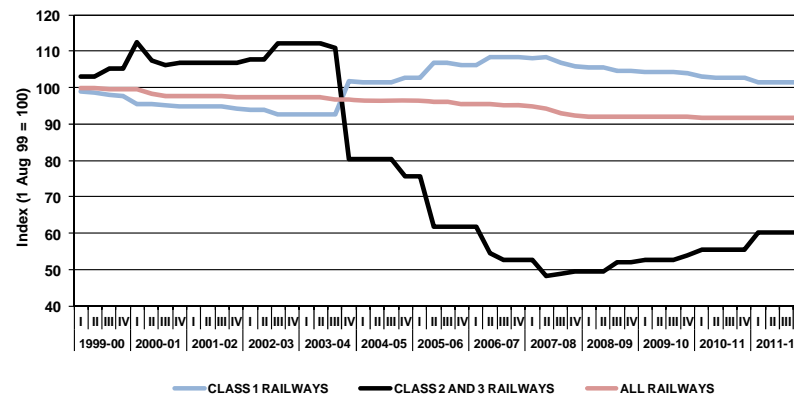
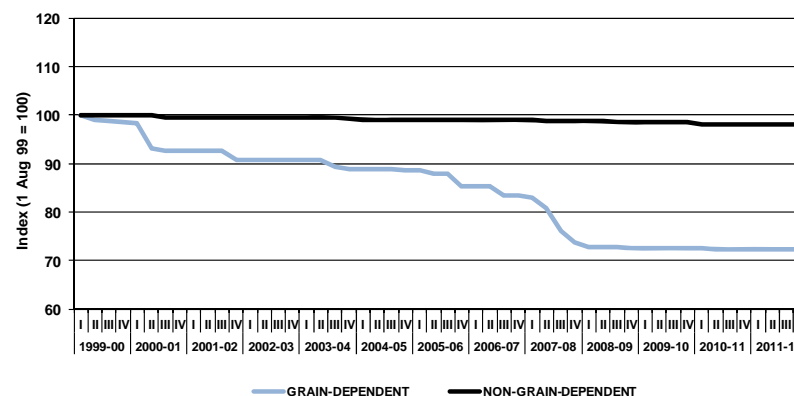


Figure 21: Change in Route-Miles - Railway Network



Although the creation of these new entities had a comparatively modest impact on the division between Class 1 and non-Class-1 infrastructure, the prairie shortline system was again expanding. At the close of the 2010-11 crop year, the shortline network had increased by more than a third, encompassing 1,385.6 route-miles of track under the management of 14 separate carriers.

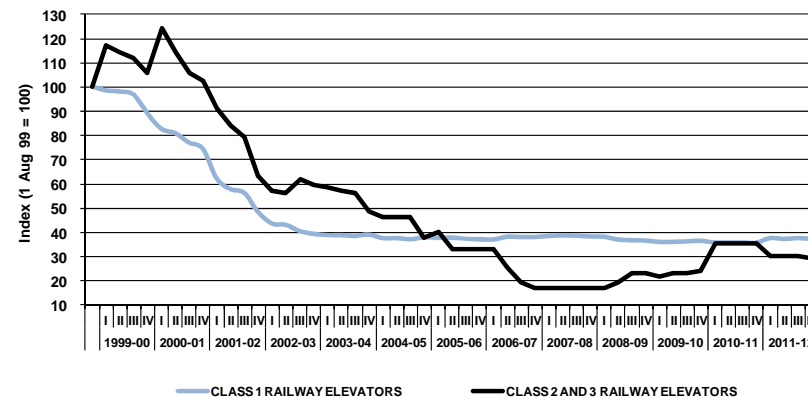
The 2011-12 crop year brought still another example of this expansion with the September 2011 formation of Big Sky Rail (BSR), which assumed operation of a 220.5-route-mile cluster of CN track situated in western Saskatchewan.<sup>18</sup> As with many of the shortlines created before it, the establishment of the BSR was but the latest evolutionary step in a broader effort aimed at preserving local railway service. Moreover, since 1997 these lines had served as the transportation backbone in a network of five producer-car loading sites operated by West Central Road and Rail (WCRR). In effect, the BSR represents a partnership between WCRR and Mobil Grain, which spearheaded the creation of the Last Mountain Railway (LMR) in 2009. A key facet of the new carrier's business plan centres on sharing railway resources, with Mobil Grain employing the same assets to service both the LMR and the BSR.<sup>19</sup>

With no discontinuances reported through the preceding twelve months, the establishment of the BSR produced only a modest change to the face of the railway infrastructure in western Canada during the 2011-12 crop year. Although the span of this network remained unchanged at 17,830.3 route-miles, the infrastructure accorded to the Class 1 railways was reduced by 1.4%, to 15,029.0 route-miles, while that associated with the non-Class-1 carriers was increased by 8.5%, to 2,801.3 route-miles.

18 The cluster encompassed 94.3 route-miles of CN's Conquest subdivision; 104.8 route-miles of its Elrose subdivision; and a 22.4-route-mile section of its Mantario subdivision. These three sections had long been identified by CN as potential discontinuance candidates.

19 The networks of Big Sky Rail and the Last Mountain Railway are physically separate. As part of the transaction, Mobil Grain secured the right to shuttle equipment and crews between the two networks as required using trackage rights over CN lines into Saskatoon.

Figure 22: Change in Local Elevators - Railway Class



### Local Elevators

As previously outlined, the GHTS's elevator infrastructure has been transformed more substantively over the course of the last twelve years than has the railway network that services it. In broad terms, these facilities have decreased by 63.4% in number, to 358 from 979, and by 4.8% in terms of associated storage capacity, to 6.6 million tonnes from 6.9 million tonnes.<sup>20</sup>

But these reductions have manifested themselves in noticeably different ways for the Class 1 and non-Class 1 railways. By the close of the 2011-12 crop year, the elevator networks served by both carrier groups had fallen by analogous amounts: 62.8% in the case of those served by the major carriers; and 70.7% in the case of those served by the non-major carriers. [Table 3B-3]

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

However, there was a far more pronounced change in storage capacity, with only a 0.4% decline in the case of elevators local to Class 1 carriers versus a 63.5% reduction for those tied to non-Class 1 carriers. These latter changes underscore the fact that the grain companies have been investing in facilities served by the major railways rather than the shortlines, situating virtually all of their high-throughput elevators on the networks belonging to CN and CP.<sup>21</sup>

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 72.6% since the beginning of the GMP, to 115 from 420. For those situated along the non-grain-dependent network, the decline was 56.5%, with the number of elevators having fallen to 243 from 559. The change in associated storage capacity shows an even greater contrast, with that of the grain-dependent network falling by 24.9%, to 1.9 million tonnes, while that of the non-grain-dependent network actually increased by 6.5%, to 4.7 million tonnes. On the whole, these patterns clearly indicate that the elevators tied to the grain-dependent railway network have diminished at a noticeably faster pace.

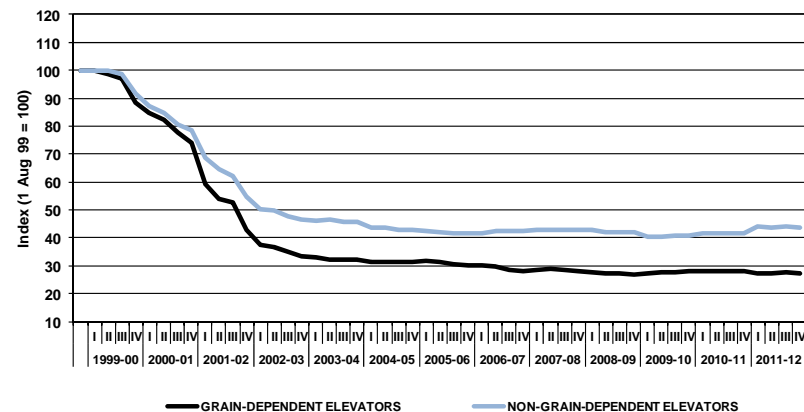
### TERMINAL ELEVATOR INFRASTRUCTURE

There were a number of noteworthy changes in the makeup of the licensed terminal elevator network in the 2011-12 crop year. At the close of the crop year, the network comprised 16 facilities with an associated storage capacity of 2.2 million tonnes. Although this denoted a gain of one facility over those in place a year earlier, it also signified a loss of 261,800 tonnes of storage capacity. These values also differ somewhat from those benchmarked in the GMP's base year, which encompassed 14 elevators with 2.6 million tonnes of storage capacity.<sup>22</sup> [Table 3C-1]

21 As at 31 July 2012 there were 193 high-throughput elevators served by rail. Of these, 185 were served by CN and CP.

22 Beyond the changes in its physical scope, there were a number of significant changes in terminal ownership. Much of this stemmed from the various corporate mergers and acquisitions that have taken place since the GMP began. The significant bearing on terminal

Figure 23: Change in Local Elevators - Branch Line Class



From the outset of the GMP, Thunder Bay has been home to the majority of the GHTS's terminal-elevator assets. But the compound effects of a decade's worth of incremental change has served to steadily erode that position. By the close of the 2011-12 crop year, the licensed storage capacity associated with the port's seven terminal elevators had been reduced by a quarter, to 958,000 tonnes. Much of this reduction was attributable to the lowering of the licensed storage capacity at the Viterra C facility, which was cut to a mere 800 tonnes from 231,000 tonnes as of 1 April 2012.<sup>23</sup> To an extent, this was tempered by the increase in storage capacity at Mission Terminal, which was expanded by 16,500 tonnes early in the first quarter. By the close of the crop year, Thunder Bay claimed

ownership came from the merger of Agricore Cooperative Ltd. and United Grain Growers Limited, which combined to form Agricore United in 2001. This entity was itself bought out by Saskatchewan Wheat Pool in 2007, which subsequently rebranded itself as Viterra Inc.

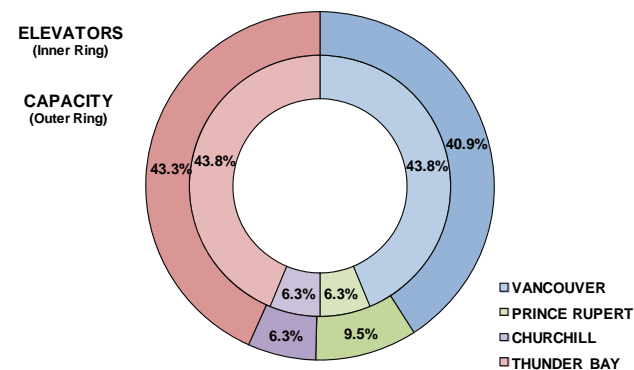
23 This facility was formerly operated by United Grain Growers Limited, and has largely been inactive since the company merged with Agricore Cooperative in 2001.

43.8% of the system's elevators and 43.3% of its licensed storage capacity; down from the 46.7% and 47.3% shares respectively held a year earlier.

Still, Thunder Bay was not the only port to report a change in its asset mix. The same was true of Vancouver, where a first-quarter reduction by Pacific Elevators lowered that port's storage capacity by 63,100 tonnes. This loss, however, was partially trimmed in the fourth quarter with the licensing of a new 15,000-tonne facility operated by Parrish and Heimbecker at the West Fraser Docks in suburban Surrey. The launch of this latter facility served to raise the number of terminal elevators in the greater Vancouver area to seven; the same as in Thunder Bay. Even with this increase, the port's licensed storage capacity fell by 5.0%, to 906,200 tonnes from 954,300 tonnes. Nevertheless, by the close of the 2011-12 crop year this had given Vancouver sway over 43.8% of the system's terminal elevators and 40.9% of its licensed storage capacity; nominal gains over the previous crop year's corresponding shares of 40.0% and 38.5% respectively.

Although there were no variations registered against the terminal elevators operated at Prince Rupert and Churchill, the changes already noted for Thunder Bay and Vancouver affected the shares of the stand-alone terminal elevators situated there. Both now claimed a slightly lesser 6.3% share of the system's terminal elevators, and marginally greater shares of the licensed capacity: 9.5% in the case of Prince Rupert; and 6.3% in the case of Churchill. An interesting consequence of these changes was the almost even division of eastern and western gateway assets, with both overseeing the operation of eight terminal elevators with approximately 1.1 million tonnes of associated storage capacity. In fact, for the first time under the GMP, the storage capacity associated with the west coast ports of Vancouver and Prince Rupert actually exceeded that of Thunder Bay and Churchill by 17,700 tonnes.

Figure 24: Terminal Elevators - 2011-12 Crop Year



## Section 4: Commercial Relations

Indicator Description	Table	2011-12								
		1999-00	2009-10	2010-11	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Trucking Rates</b>										
Composite Freight Rate Index - Short-haul Trucking	4A-1	100.0	132.2	162.2	162.2	162.2	162.2	162.2	162.2	0.0%
<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	\$28.76	\$30.59	n/a	n/a	n/a	n/a	\$31.37	2.5%
<b>Terminal Elevator Handling Charges</b>										
Average Handling Charges - Terminal Elevators	4D-1									
<b>Tendering Program</b>										
Tenders Called (000 tonnes)	4E-1	n/a	2,431.4	3,312.2	940.5	533.3	827.5	0.0	2,301.3	-30.5%
Tender Bids (000 tonnes)	4E-3	n/a	4,969.6	8,729.8	7,017.6	3,386.4	1,944.6	0.0	12,348.7	41.5%
Total CWB Movements (000 tonnes)	4E-5	n/a	15,175.0	13,452.8	3,984.2	3,103.9	3,825.6	3,254.0	14,167.8	5.3%
Tendered Movements (%) - Proportion of Total CWB Movements	4E-5	n/a	16.4%	12.3%	11.8%	14.9%	8.8%	0.0	10.0%	-18.7%
Tendered Movements (000 tonnes) - Grain	4E-5	n/a	2,495.2	1,653.2	469.8	463.4	483.8	0.0	1,417.0	-14.3%
Average Tendered Multiple-Car Block Size (railcars) - Port	4E-17	n/a	64.8	59.8	65.4	69.9	61.5	0.0	65.2	9.0%
Railway Car Cycle (days) - Tendered Grain	4E-18	n/a	11.1	12.5	10.8	12.5	13.0	0.0	12.1	-3.2%
Railway Car Cycle (days) - Non-Tendered Grain	4E-18	n/a	13.1	14.1	13.8	13.9	13.3	15.0	14.1	0.0%
Maximum Accepted Tender Bid (\$ per tonne) - Wheat	4E-19	n/a	-\$21.28	-\$25.02	-\$20.06	-\$12.56	-\$10.37	\$0.0	-\$20.06	-19.8%
Maximum Accepted Tender Bid (\$ per tonne) - Durum	4E-19	n/a	-\$23.56	-\$11.07	-\$11.42	-\$1.00	-\$12.11	\$0.0	-\$12.11	9.4%
Market Share (%) - CWB Grains - Major Grain Companies	4E-20	n/a	74.3%	74.8%	74.7%	72.8%	74.2%	73.6%	73.8%	-1.3%
Market Share (%) - CWB Grains - Non-Major Grain Companies	4E-20	n/a	25.7%	25.2%	25.3%	27.2%	25.8%	26.4%	26.2%	4.0%
<b>Advance Car Awards Program</b>										
Advance Award Movements (%) - Proportion of Total CWB Movements	4F-1	n/a	10.8%	8.3%	1.9%	9.7%	5.2%	1.2%	4.3%	-48.2%
Advance Award Movements (000 tonnes) - Grain	4F-1	n/a	1,633.3	1,112.1	74.4	301.5	198.4	38.7	613.1	-44.9%
Railway Car Cycle (days) - Advance Award Grain	4F-6	n/a	12.3	13.2	12.6	13.3	13.1	15.6	13.5	2.3%



## TRUCKING RATES

Short-haul trucking rates rose substantially between the 2004-05 and 2008-09 crop years, increasing by a factor of one-third from what they had been at the beginning of the GMP. Although this escalation was largely derived from rising fuel and labour costs, it was also supported by a heightened demand for carrying capacity, which allowed service providers a greater degree of latitude in passing these costs onto grain producers. Even with a subsequent collapse in crude oil prices, these rates remained unchanged through the close of the 2009-10 crop year.<sup>24</sup>

But the 2010-11 crop year saw oil prices regain a lot of lost ground, reaching as much as \$110 US per barrel by April 2011. This ultimately raised fuel prices and brought new pressure to bear on the cost of moving grain by truck. As a result, the composite price index for short-haul trucking rose to a GMP high of 162.2 by the close of the crop year. Although market prices remained volatile through the end of the 2011-12 crop year, the price of oil closed at about \$94 US per barrel. Despite these fluctuations, trucking rates remained largely unaffected, with the composite price index standing unchanged at 162.2. [Table 4A-1]

## COUNTRY ELEVATOR HANDLING CHARGES

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

Given the wide variety of tariff rates, the GMP necessarily uses a composite price index to track changes in them. Since the beginning of

<sup>24</sup> The market price for West-Texas-Intermediate crude fell from a high of \$133 US per barrel in June 2008 to a low of just \$40 US per barrel by February 2009.

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

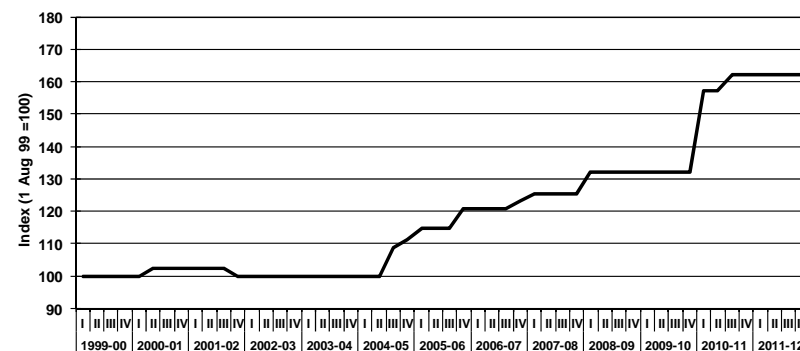
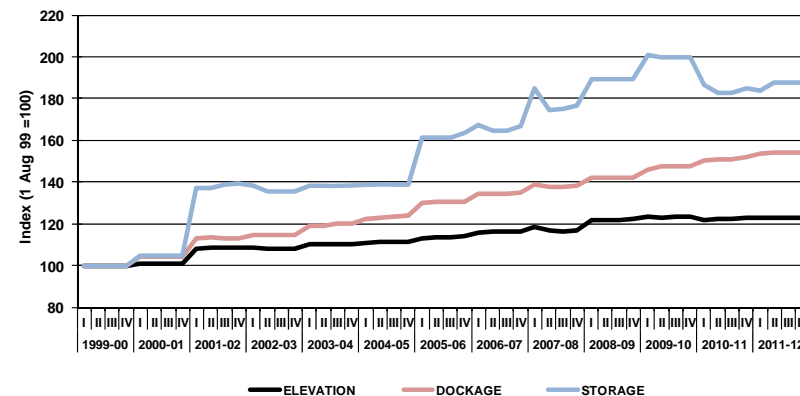


Figure 26: Change in Primary Elevator Handling Charges



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 2010-11 crop year, these costs had risen by 22.8%. The 2011-12 crop year saw only minor adjustments to these rates, with the overall composite price index rising by just 0.1%, to 122.9.

The rates associated with the removal of dockage have increased at a somewhat faster pace. Through to the end of the 2010-11 crop year, these rates had already increased by 51.7%. With the close of the 2011-12 crop year, these rates had increased another 1.6%, which raised the composite price index to a value of 154.1.

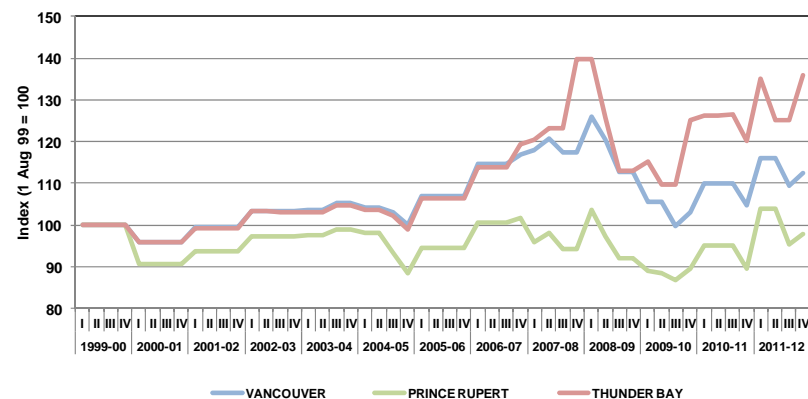
The most substantive rate escalations observed thus far have related to elevator storage. Much of the initial price shock came towards the end of the 2000-01 crop year, when these rates were raised by a factor of almost one-third. Since then they have continued to climb, rising by 84.8% through to the end of the 2010-11 crop year.<sup>25</sup> Although a rollback in the rates applicable on the storage of grain in Manitoba did much to reduce these costs in the first quarter of the 2011-12 crop year, later increases served to raise the composite price index by a further 1.6%, to 187.8. [Table 4B-1]

## RAILWAY FREIGHT RATES

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

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

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



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 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.

Both CN and CP escalated their single-car freight rates at the beginning of the 2011-12 crop year. For its part, CN instituted a series of sharp rate increases, ranging from a low of 10.8% in the Vancouver corridor to a high of 16.0% on movements into Prince Rupert. The escalations applied

against the single-car rates on shipments to Thunder Bay and Churchill fell midway between these values, averaging 12.4% and 12.2% respectively. The rate increases advanced by CP proved comparatively more modest, with the average escalation on single-car movements into Vancouver and Thunder Bay amounting to 5.0% and 5.5% respectively.

These escalations were followed by somewhat lower rates in the second and third quarters. For the most part, the single-car rates published by both carriers remained unchanged through to the end of the second quarter. The sole exception pertained to the rates advanced by CN on shipments to Thunder Bay, which were cut by an average of 7.3% in November 2011.

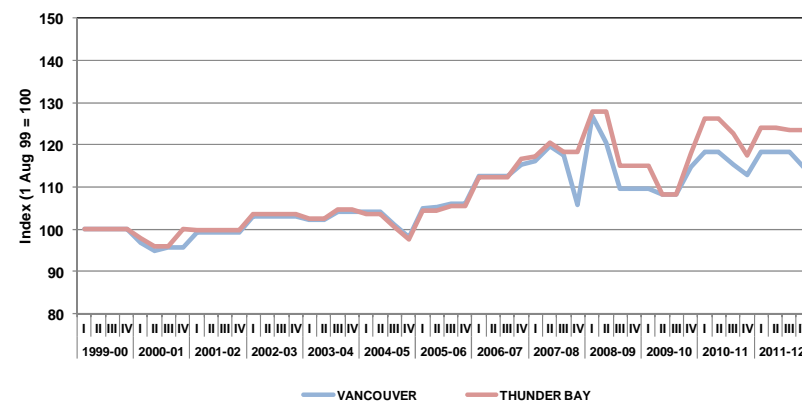
In the third quarter, CP again extended its rates through to the end of the period, leaving them effectively unchanged from those set out at the beginning of the crop year for a full nine months. For its part, CN instituted a reduction on its westbound rates in March 2012, cutting those on movements into Vancouver and Prince Rupert by an average of 5.7% and 8.1% respectively.

The single-car rates brought forward by these two carriers in the fourth quarter saw more substantive differences. For its part, CN increased its westbound rates to Vancouver and Prince Rupert by approximately 2.6%. In contrast, the carrier imposed a more substantive increase of 8.7% on movements into Thunder Bay as well as a 1.3% increase on those into Churchill.<sup>26</sup> These stood against CP reductions of 3.0% in the Vancouver corridor, and the extension of its existing rates into Thunder Bay through to the end of the crop year.

The compound effect of these pricing actions, as well as those registered earlier in the GMP, provides some insight into the orientation of today's single-car freight rates. By the close of the 2011-12 crop year, the single-

<sup>26</sup> CN's single-car rates to Churchill are published in accordance with the port's shipping season. The 1.3% increase cited here relates to the rates that were in place at the close of the 2011 shipping season, or the first quarter of the 2011-12 crop year.

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



car rates applicable on the movement of grain to the jointly served ports of Vancouver and Thunder Bay had both increased, albeit by substantially different margins: 13.6% for CN and 29.8% for CP. The difference was even more significant for the ports of Prince Rupert and Churchill, which actually declined by 2.1% in the case of the former, and increased by 36.7% in the case of the latter. Taken altogether, these patterns continue to suggest that the railways are more favourably disposed towards the handling of westbound grain, and that they have become more willing to use price in an effort to influence that movement.

### 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 freight discounts remained unchanged in the 2011-12 crop year. CN continued to offer discounts on movements in blocks of 50-99 cars that equated to \$4.00 per tonne, and to \$8.00 per tonne on movements of 100 or more cars. The corresponding discounts for CP remained at \$4.00 per tonne for shipments in blocks of 56-111 cars, and at \$8.00 per tonne for shipments in blocks of 112 cars. [Table 4C-2]

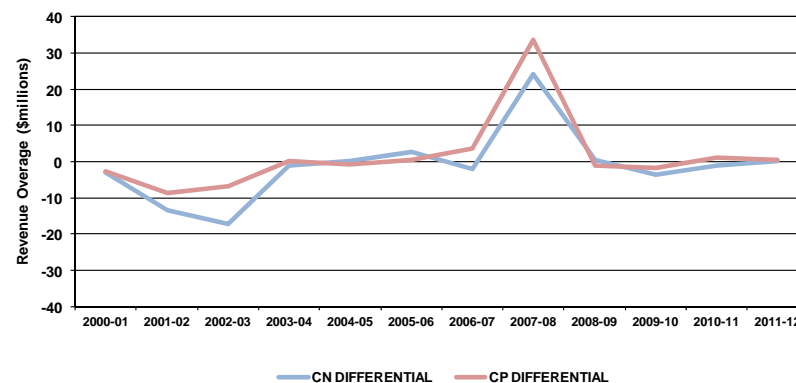
### The Revenue Cap

Under the federal government's revenue cap, the revenues that CN and CP are entitled to earn in any given crop year from the movement of regulated grain cannot exceed a legislated maximum of \$348.0 million and \$362.9 million respectively.<sup>27</sup> But these limits are not static. Rather, they are adjusted annually to reflect changes in volume, average length of haul, and inflation. With the exception of the inflationary component, these adjustments are determined by the Canadian Transportation Agency following a detailed analysis of the traffic data submitted to it by CN and CP at the end of any given crop.<sup>28</sup> For the 2011-12 crop year, the revenue caps for CN and CP were set at \$542.5 million and \$494.0 million

<sup>27</sup> The maximums cited here are expressed in constant 2000 dollars, and were developed using an estimated annual movement of 12.4 million tonnes for CN and 13.9 million tonnes for CP, with average haulage distances of 1,045 miles and 897 miles respectively.

<sup>28</sup> The Volume-Related Composite Price Index (VRCPI), which provides for an inflationary adjustment to carrier revenues, is determined by the Canadian Transportation Agency in advance of each crop year. For the 2011-12 crop year, the Agency determined the value of the VRCPI to be 1.1777, which represented a year-over-year increase of 3.5%. See Canadian Transportation Agency Decision Number 136-R-2011 dated 21 April 2011.

Figure 29: Revenue Cap Compliance



respectively, or \$1,036.6 million on a combined basis.<sup>29</sup> It is worth noting that this marked the first instance since the introduction of the revenue cap where the carriers' revenue entitlement actually reached above the \$1.0-billion threshold. [Table 4C-3]

At the same time, the Agency determined that the statutory revenues derived from the movement of regulated grain by CN and CP amounted to \$542.8 million and \$494.4 million respectively, or \$1,037.2 million on a combined basis. This meant that the revenues for both carriers actually exceeded their limits: by \$240,200 in the case of CN; and by \$400,100 in the case of CP. Even so, total carrier revenues stood less than 0.1% above the legally prescribed limit. The narrowness of this differential, as well as those preceding it, continues to point to the railways' proficiency in maximizing their revenues within the current regulatory framework.

<sup>29</sup> See Canadian Transportation Agency Decision Number 477-R-2012 dated 19 December 2012.

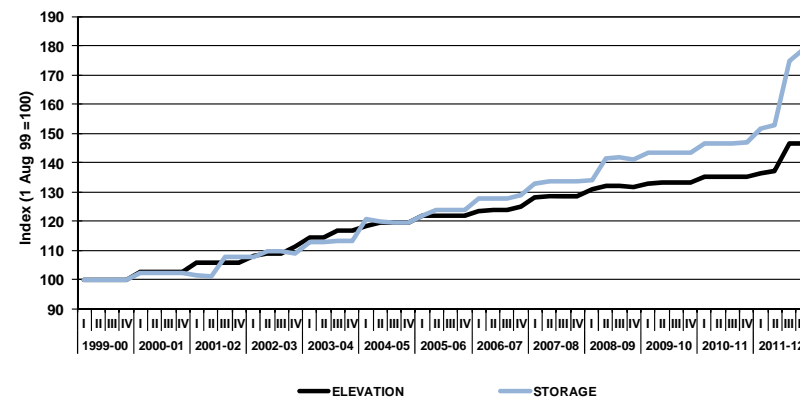
## TERMINAL ELEVATOR HANDLING CHARGES

The rates posted for the receiving, elevating and loading out of grain nominally represent the most substantive assessed by the terminal elevator operators. As with other measures, an examination of price movement is best performed using a composite index, given the myriad of different tariff rates. At the end of the 2010-11 crop year these ranged from a low of about \$8.08 per tonne on wheat delivered at Churchill, to a high of \$14.96 per tonne on flaxseed shipped to Vancouver.

Although rate increases were noted for all major ports in the 2011-12 crop year, the most significant gains were posted by Churchill, which raised its rates for the first time since the 2004-05 crop year. These escalations ranged from a 25.0% increase on barley to a 54.8% increase on rye. The increases posted at other ports proved substantially less. For Vancouver, they ranged from a low of 1.7% on barley to a high of 2.6% on peas. The story was much the same at Prince Rupert, where rate hikes ranged from 2.4% to 2.7%. In comparison, Thunder Bay advanced somewhat more modest increases, ranging from 0.9% to 1.8%. Together, these actions raised the composite price index by 8.4%, bringing the combined value of all increases made since the beginning of the GMP to 46.5%. [Table 4D-1]

As with the cost of elevation, the daily charge for storage also varied widely, ranging from a low of about \$0.08 per tonne on wheat held at Vancouver to a high of \$0.16 per tonne on oats maintained in inventory at Churchill. Here again, Churchill saw its first increases in several years, with the overall average rising by 61.1%. This was followed by Prince Rupert, where a sharp upturn in the movement of canola lifted the associated storage charges by 36.6%. Increased storage charges for a host of non-CWB grains late in the fourth quarter helped spearhead an 11.2% escalation at Thunder Bay. In comparison, Vancouver posted a far more moderate increase of 3.2%. Together, these actions served to raise the composite price index on storage by 21.6% in the 2011-12 crop year, bringing the cumulative increase since the beginning of the GMP to 78.7%.

Figure 30: Change in Terminal Elevator Handling Charges



## TENDERING PROGRAM

The 2011-12 crop year marked the twelfth for the Canadian Wheat Board's (CWB) tendering program. Although initially established with a three-year life under a Memorandum of Understanding (MOU) between the Minister Responsible for the Canadian Wheat Board and the CWB, the program had evolved significantly since the original MOU expired at the end of the 2002-03 crop year. Within its existing framework, the CWB committed to move a total of 40% of the grain it ships to the four ports in western Canada using a roughly equal combination of tendering and advance car awards.

While the amount of grain shipped under these two programs never reached much beyond a third of the overall movement, this proportion had been drifting steadily lower in recent years. Much of this was due to the CWB's adoption of a less rigid target, and one that gave it a greater degree of flexibility in moving grain. Still, the 2011-12 crop year showed continued signs of decline - particularly as the crop year approached its

close - and the traditional role played by the CWB in the marketing of Canadian wheat and barley itself came to an end.<sup>30</sup> In fact, no grain was shipped under the CWB's tendering program after April 2012.

### Tender Calls

The CWB issued a total of 154 tenders calling for the shipment of 2.3 million tonnes of grain in the 2011-12 crop year. This represented a 30.5% reduction from the 3.3 million tonnes put out to tender a year earlier. Just over half of this tonnage, 50.5%, related to wheat. This entailed a potential movement of almost 1.2 million tonnes, 21.8% less than the 1.5 million tonnes called a year earlier. Barley tenders trailed moderately behind with calls for 991,100 tonnes. This, however, denoted 43.1% of the overall total compared to 48.9% the year previous. Durum calls, which claimed a 6.4% share against 6.2% a year earlier, represented just 147,800 tonnes.

The CWB sought to move the vast majority of the grain, representing 90.6% of the tonnage called, through the west coast ports of Vancouver and Prince Rupert. This was marginally ahead of the combined 88.6% share observed a year earlier. However, Vancouver's role in this mix was greatly diminished as a result of a sharp reduction in called tonnage, with its share falling to 29.2% from 37.4%. Naturally, Prince Rupert took on a correspondingly larger role, with its share climbing to 61.4% from 51.2%. This gain also resulted in Thunder Bay posting a lesser share, with 9.4% of the tonnage called being allocated there, as compared to 11.2% a year earlier. With no tenders having been issued for Churchill, its share fell to zero from 0.3%. [Tables 4E-1 and 4E-2]

Figure 31: Tendered Grain - Tonnage Called and Tonnage Bid

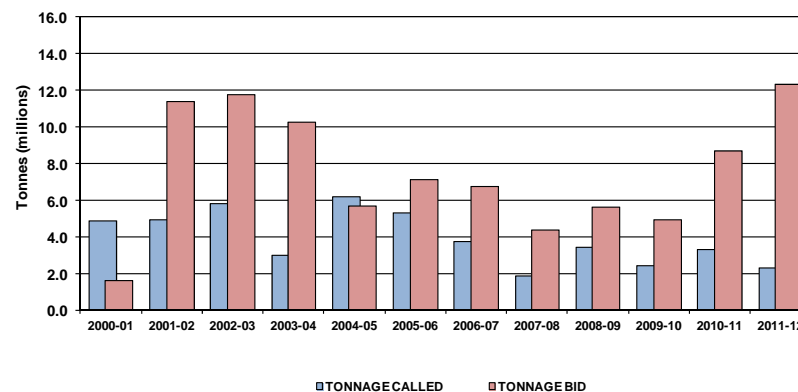
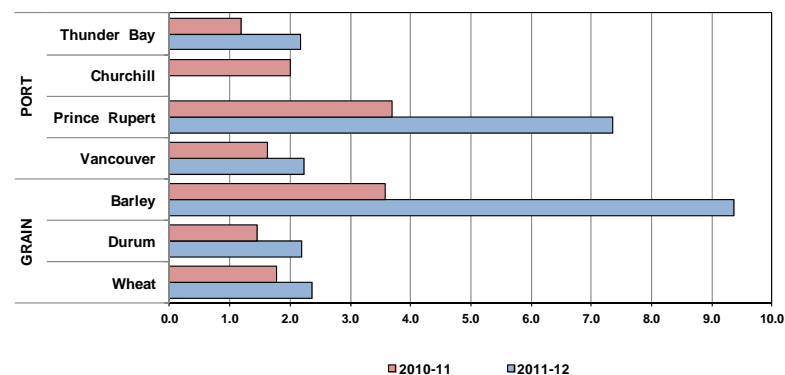


Figure 32: Ratio of Tonnage Bid to Tonnage Called



<sup>30</sup> The federal government repealed the CWB's monopoly over the sale of western Canadian wheat and barley as of 1 August 2012. The 2011-12 crop year was, therefore, a transitional period for the CWB.

## Tender Bids

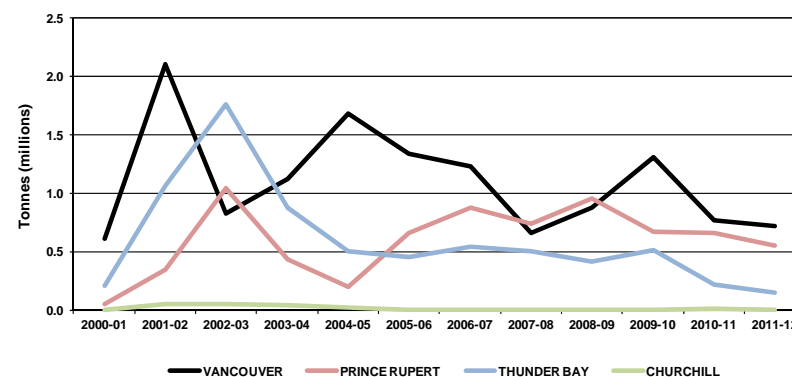
The CWB's tender calls were met by 445 bids offering to move 12.3 million tonnes of grain, more than five times the amount sought. The vast majority of these bids, 75.1%, responded to calls for the movement of barley. Another 22.3% responded to those issued for wheat, while the remaining 2.6% answered those for durum. As regards the port specified in the tender calls, 84.1% of the bids were directed to Prince Rupert, 12.1% to Vancouver, and 3.8% to Thunder Bay. [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. Overall bidding in the 2011-12 crop year proved significantly more intense than in the previous crop year. Moreover, the response rate for barley, which posted a ratio of 9.4 against just 3.6 twelve months before, proved much stronger than that of either wheat or durum. Durum elicited the next largest gain, with its ratio increasing by 51.5%, to 2.2 from 1.4 a year earlier. Wheat tenders, which showed a lesser gain of 33.4%, yielded a ratio of 2.4 against 1.8 the previous year.

The response rates for the port specified in the tender calls also showed equally substantive increases. This was particularly true of Prince Rupert, which garnered the highest response rate among the four ports, with a ratio of 7.4 against that of 3.7 a year earlier. The ratio associated with delivery at Vancouver stood substantially behind this, climbing by 37.3%, to 2.2 from 1.6 a year earlier. Thunder Bay also carried a ratio of 2.2, although it increased by 83.3% from the 1.2 registered a year earlier. Owing to the fact that no tenders were issued for Churchill, its ratio fell to zero from 2.0.

For the most part, these heightened response rates reflected prevailing market conditions. More specifically, ample grain supplies in the face of strong export demand raised the willingness of grain companies to bid on the CWB's tendered grain movements. This was especially true of the barley that the CWB was directing through Prince Rupert.

Figure 33: Tendered Grain - Destination Port



## Contracts Awarded

A total of 184 contracts were subsequently signed for the movement of just over 1.4 million tonnes of grain.<sup>31</sup> This fell 14.3% below the almost 1.7 million tonnes awarded a year earlier. However, this constituted just 10.0% of the tonnage shipped by the CWB to western Canadian ports in the 2011-12 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, 50.7% of the grain contracted for movement under the tendering program was directed to Vancouver. This greater share was complemented by a correspondingly lesser one for Prince Rupert, which garnered 38.6% of the contracted tonnage. The proportion secured by Thunder Bay also proved to be

<sup>31</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.



marginally less than that defined by the CWB's tender calls, with an earned share of 10.7%.

### Malting Barley

Owing to a rebound in grain quality, three tenders were issued by the CWB for the movement of malting barley in the 2011-12 crop year. This resulted in the awarding of five contracts for the movement of 198,200 tonnes of malting barley. As the sole grain sold on a Free-on-Board basis, this represented 14.0% of all tendered grain shipments. The remaining 86.0% were all sold on an "in-store" basis. [Table 4E-9]

### Originating Carrier

CN secured 57.7% of the grain volume that moved under the CWB's tendering program in the 2011-12 crop year. This denoted a modest gain over the 54.0% share taken by the carrier a year earlier. CN also garnered a 73.9% share of the malting barley movement. This marked the fifth instance in the last seven crops years where CN emerged as the dominant carrier in the movement of tendered grain. To a large extent, CN's rank simply reflects the physical scope of its infrastructure, which has given it a commercial hold over shipments to the west coast generally, and Prince Rupert in particular. [Table 4E-11]

In light of the larger role given to Prince Rupert in recent years, CN has effectively dislodged CP as the largest originator of tendered grain, a title held by the carrier throughout much of the GMP's first seven years. This accomplishment came despite the fact that CN serves a lesser number of the high-throughput elevators used to effect these shipments than does CP, 82 versus 103 respectively.<sup>32</sup>

<sup>32</sup> At the close of the 2011-12 crop year there were 193 high-throughput facilities situated across western Canada. In addition to the 185 high-throughput facilities served by CN and CP, another eight are served by shortline railways.

Figure 34: Tendered Grain - Share of CWB Shipments

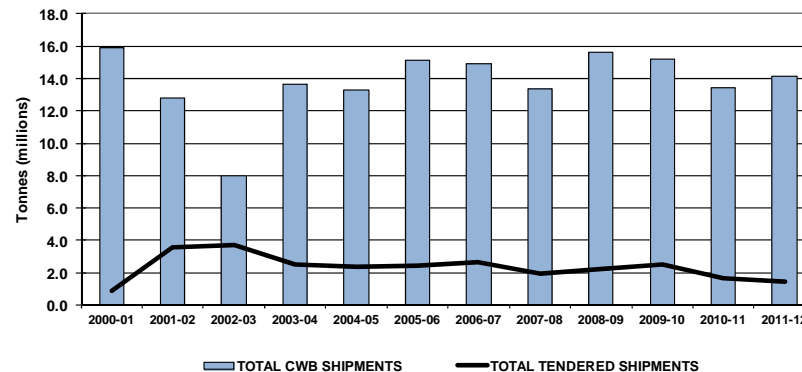
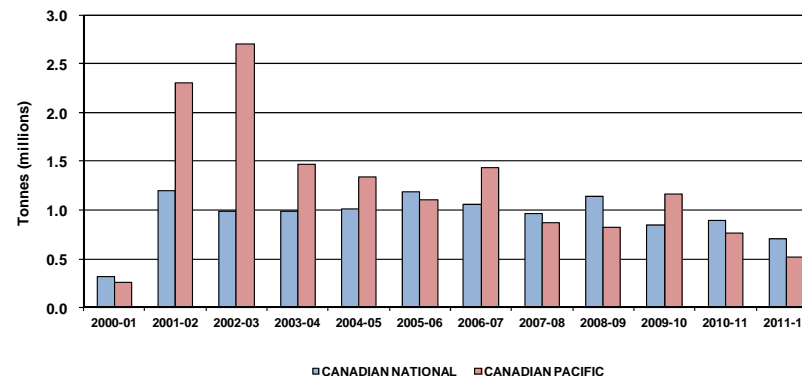


Figure 35: Tendered Grain - Originating Carrier





### 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%. This was again the case in the 2011-12 crop year, when 90.4% of the tendered grain volume moved in such blocks, a marginal gain over the 89.8% value recorded a year earlier. Underscoring this increase was the fact that shipments in blocks of 50 or more cars also assumed a larger role, taking a 66.8% share against a 61.9% share the previous year. [Table 4E-12]

In addition to a smaller role for movements in blocks of less-than-25 cars, which fell to 9.6% from 10.2% the year before, there were other noteworthy reductions. Specifically, these included diminished shares for movements in blocks of 25-49 cars as well as blocks of 50-99 cars, which fell to 23.6% from 27.9% in the case of the former, and to 42.3% from 48.6% in the case of the latter. Only movements in blocks of 100 or more cars showed a substantive gain, taking a record-setting 24.5% share as compared to 13.3% a year earlier. [Table 4E-12]

### Tendered Origins

With 661,700 tonnes of grain shipped in the 2011-12 crop year, Alberta was the largest originator of tendered grain in western Canada. Even so, the province’s relative share fell marginally, to 54.3% from 55.2% a year earlier. This was partially attributable to a stronger showing by Saskatchewan, which with 495,600 tonnes, earned a 40.7% share against 36.3% the previous year. Manitoba followed with originations of only 37,000 tonnes in comparison to 139,200 tonnes a year earlier, and which saw its share slide to just 3.0% from 8.4%. Only British Columbia reported an increase in volume, with shipments rising to 24,500 tonnes from 2,000 tonnes the previous year.

High-throughput elevators have been the principal facilities used in moving tendered grain. From the outset of the GMP, over 90% of the

Figure 36: Tendered Grain - Multiple Car Blocks

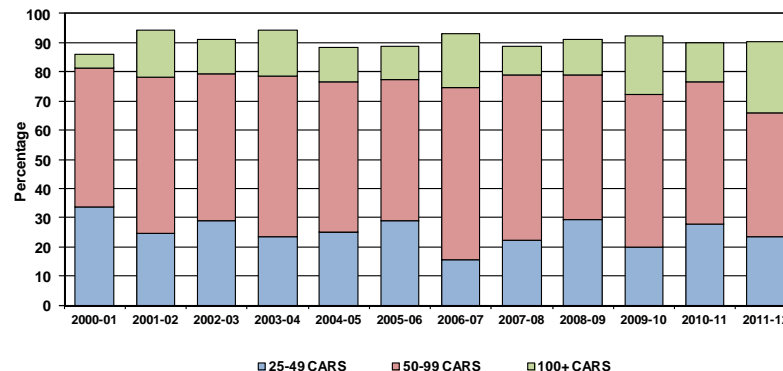
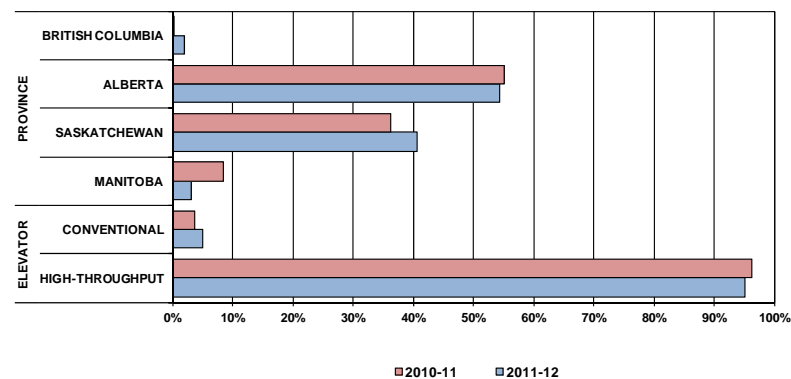


Figure 37: Tendered Grain - Originations



annual tendered grain movement originated at such facilities. In more recent years, this share has moved steadily higher, reaching a record 97.7% in the 2008-09 crop year. Shipments in the 2011-12 crop year were consistent with this, with 95.0% of the tendered grain movements having originated at high-throughput elevators. Equally large proportions were attributable to the tonnages originated by each of the producing provinces, save that of British Columbia, where all tendered grain movements originated at conventional elevators.<sup>33</sup> [Table 4E-14]

### Car Cycles

The average car cycle for tendered grain shipments decreased by 3.2% in the 2011-12 crop year, falling to 12.1 days from the 12.5-day average recorded a year earlier. This reduction was in part derived from an improvement in CP's performance, which had been undermined in the previous crop year by persistent service problems occasioned by severe flooding on the prairies and an unusually heavy snowfall in the Rockies. [Table 4E-18]

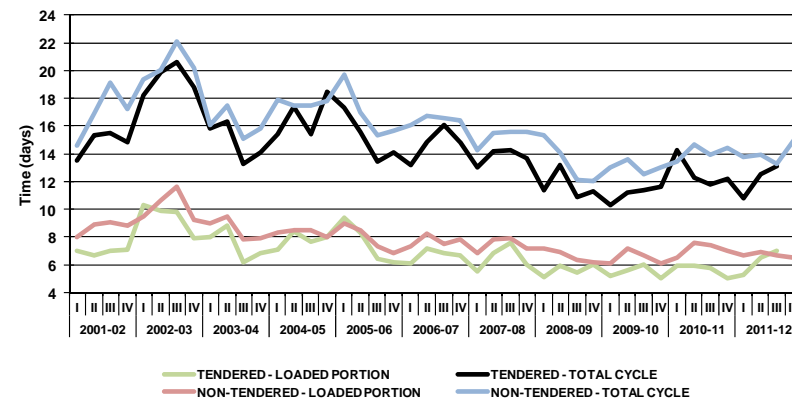
This also resulted in a restoration of the traditional relationship between the car cycles for tendered and non-tendered CWB grain shipments, with that of tendered grain falling 14.2% below that of non-tendered CWB grain, which posted averages of 12.1 days and 14.1 days respectively. These statistics show the reassertion of the time advantage that had long been given tendered grain movements, but which had been lost - at least temporarily - at the beginning of the previous crop year. The advantage for tendered grain shipments was consistent with the 1.3-day benefit observed over the longer term.

### Accepted Bids

Although the actual winning bids remain confidential, the CWB discloses the range of bids received for each tender it issues. As "price takers," it is in the CWB's best interest to accept the most remunerative bid put

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

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



forward.<sup>34</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>35</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. In addition, the

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

35 As used here, the term "major grain companies" refers specifically to Viterra Inc., Cargill Limited and Richardson International. These companies effectively constitute the three largest firms sourcing grain-in western Canada.

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

From the outset of the 2011-12 crop year the maximum discounts advanced for wheat proved generally weaker than those observed a year earlier, with the maximum bid cut by 19.8%, to \$20.06 per tonne from \$25.02 per tonne. This decline continued through to the third quarter, where the maximum bid on the last tenders issued by the CWB slid to just \$10.37 per tonne. The pattern was much different for durum, which after an initial rise to \$11.42 per tonne from the previous year's \$11.07-per-tonne maximum, slid to just \$1.00 per tonne in the second quarter before then rebounding to a high of \$12.11 per tonne in response to an outbreak of last-minute tenders in the third quarter. There was an equally dramatic fall in the bids on the last barley tenders, with the first quarter's maximum bid plunging to \$4.00 per tonne from the previous year's \$20.00-per-tonne high, and finally to a mere \$1.02 per tonne in the third.

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

### Market Share

The best indicator of market 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 twelve years. 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%. Necessarily, the market shares

Figure 39: Maximum Discount from Initial Price - Wheat

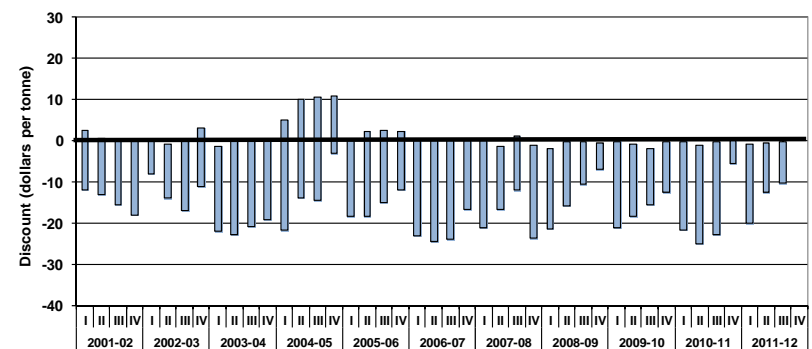
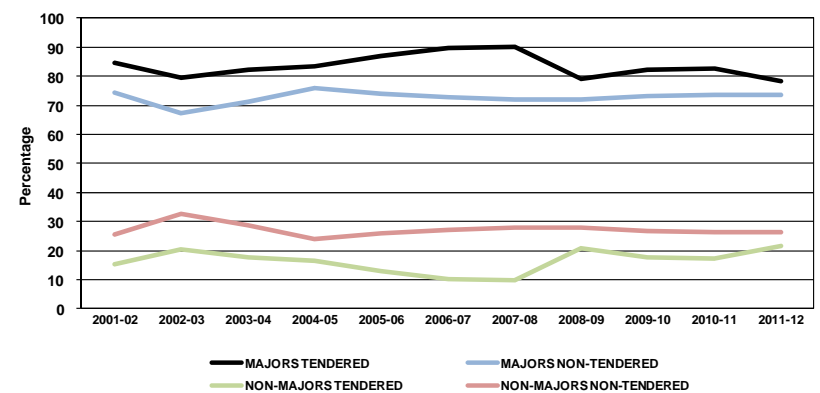


Figure 40: Market Share - CWB Grains



held by the non-major grain companies have proven notably less: amounting to about 15% on tendered grain; and to approximately 25% on non-tendered grain. [Table 4E-20]

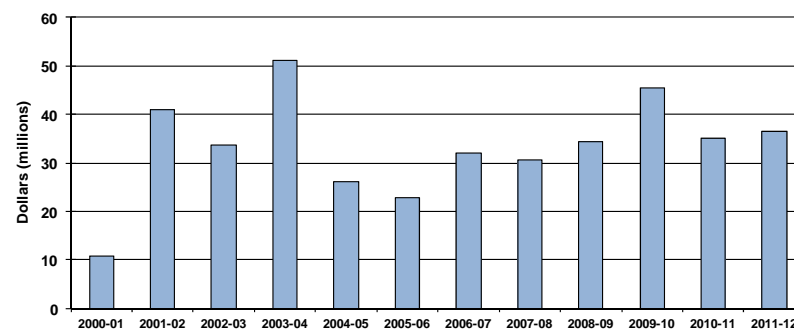
Notwithstanding this generalization of the annualized results, the market shares of both groups show greater quarterly volatility, particularly in the case of the non-major grain companies. This was especially evident in what became the final grain shipments made under the CWB's tendering program in the 2011-12 crop year, with the share of the major-grain companies slipping to 78.2% while that of the non-major grain companies rose to 21.8%. The shares accorded to both groups on the movement of non-tendered grain proved more consistent, amounting to 73.5% and 26.5% respectively.

Although the competition between grain companies has had a bearing on the stability of these shares, a larger factor appeared tied to the fact that tendered grain movements were effectively capped at 20% of the CWB's shipments to the four ports in western Canada. More particularly, the share accorded to the smaller grain companies on the movement of non-tendered grain was partially shielded by the CWB's general car allocation mechanisms. As the industry moves into an open-market environment for the 2012-13 crop year, it remains to be seen whether this stability will remain.

### Financial Savings

Despite a reduction in tendered grain shipments, the transportation savings accruing to the CWB - which is ultimately passed back to producers through its pool accounts - increased by 4.0% in the 2011-12 crop year, rising to \$36.5 million from \$35.1 million a year earlier. It must be remembered, however, that while the freight discounts garnered from the movement of tendered grain figure prominently in the calculation of the CWB's overall transportation savings, they are not the sole offsets included. Freight and terminal rebates, as well as any financial penalties for non-performance, also figure into this calculation.

Figure 41: CWB Transportation Savings



### ADVANCE CAR AWARDS PROGRAM

A total of 613,100 tonnes moved under the CWB's advance car awards program in the 2011-12 crop year. This represented a 44.9% reduction from the 1.1 million tonnes moved a year earlier. Moreover, this denoted just 4.3% of the total tonnage shipped to the four ports in western Canada by the CWB, and a substantive reduction from the 8.3% share garnered a year earlier.

In conjunction with the 1.4 million tonnes that moved under the CWB's tendering program, a total of 2.0 million tonnes of grain were moved under the auspices of these two programs. On a combined basis, this represented 14.3% of the CWB's total grain shipments to the four ports. This fell considerably short of the 40% that had been targeted, and well below the 20.6% that had been handled under these same two 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 much smaller volume of grain shipped under the advance car awards program in the 2011-12 crop year, these differences proved even more pronounced. Foremost among these was the fact that no barley moved under the advance car awards program, whereas it made up slightly more than a quarter, 26.8%, of the tendered grain volume. As a result, wheat commanded a larger share of the overall movement, 80.3% versus 65.2% for tendered grain shipments. Durum also assumed a disproportionately greater role, taking a 19.7% share of advance car award shipments against just 8.0% of tendered grain shipments. [Table 4F-1]

The largest portion of the volume that moved under the advance car awards program, 262,300 tonnes, or 42.8%, was destined to the port of Vancouver. This was in turn followed by Prince Rupert with 181,300 tonnes, and a 29.6% share; and Thunder Bay with 169,400 tonnes, and a 27.6% share. No tonnage was directed to Churchill during the 2011-12 crop year. [Table 4F-2]

### Originating Carrier

With comparatively stronger quarterly showings throughout the 2011-12 crop year, CP garnered the larger share of shipments under the advance car awards program, 54.5% against 45.5% for CN. Although this was noticeably less than the 62.2% share secured by CP a year earlier, it stood well above the 42.3% share it garnered in the movement of tendered grain. It also proved better than the 48.6% share given over to the carrier on the movement of western Canadian grain as a whole. [Table 4F-3]

### Traffic Origination

Unlike tendered grain, the majority of the tonnage moved under the CWB's advance car awards program originated in Saskatchewan. With

Figure 42: Grain Shipments - Tendered and Advance Car Awards

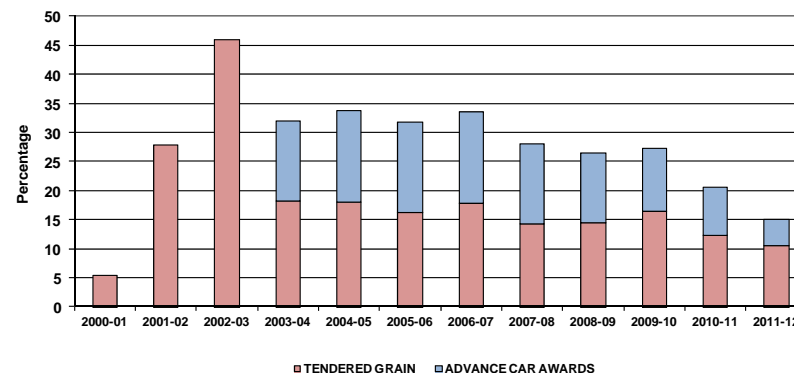
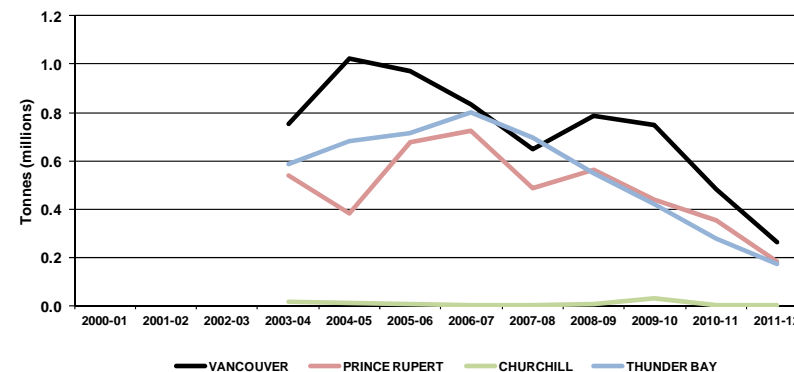


Figure 43: Advance Car Awards - Destination Port



306,200 tonnes, these shipments accounted for just under half, 49.9%, of the program’s total volume. Moreover, this share proved to be well above the 40.7% share given over to the province on the movement of tendered grain. Alberta and Manitoba followed with corresponding originations of 281,100 tonnes and 25,800 tonnes, and shares of 45.8% and 4.2% respectively. No grain from British Columbia was moved under the advance car awards program in the 2011-12 crop year. [Table 4F-4]

Virtually all of the grain shipped under the advance car awards program in the 2011-12 crop year, 98.0%, came from high-throughput elevators. This proved slightly greater than the 96.0% share secured by these facilities a year earlier. Provincially, there was little material difference in the usage rates for these facilities, which ranged from a low of 97.1% for Alberta to a high of 99.7% for Manitoba.

### Car Cycles

The car cycle for grain shipped under the CWB’s advance car awards program averaged 13.5 days in the 2011-12 crop year. This value proved to be 2.3% greater than the 13.2-day average recorded a year earlier. However, it stood noticeably above the 12.1-day average recorded for tendered grain shipments. [Table 4F-6]

The comparisons are somewhat more mixed with respect to the loaded and empty portions of the movement. In regard to the loaded portion of the movement, the advance-car-award program’s 6.1-day average actually undercut the 6.3-day average on tendered grain shipments by 3.2%. The opposite proved true for the movement’s empty portion, with the 7.4-day average for advance-car-awards standing 27.6% above the 5.8-day average for tendered grain shipments.

While longer than that of tendered grain shipments, the 13.5-day average cycle for advance-car-award movements proved less than that of non-tendered CWB movements in general. To be sure, the latter’s average of 14.1 days proved 0.6 days, or 4.4%, longer than that associated with advance-car award shipments.

Figure 44: Advance Car Awards - Originations

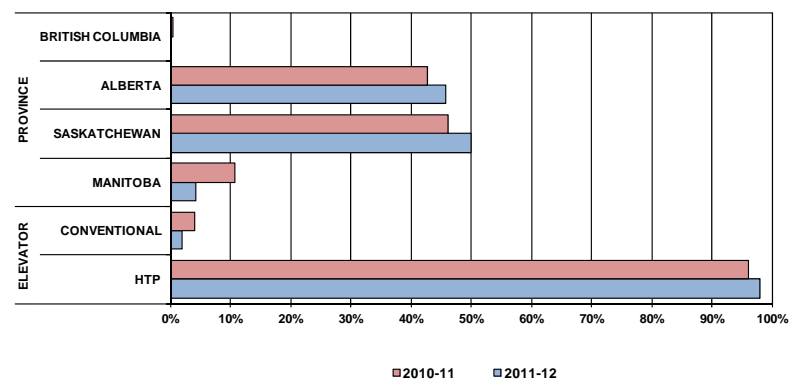
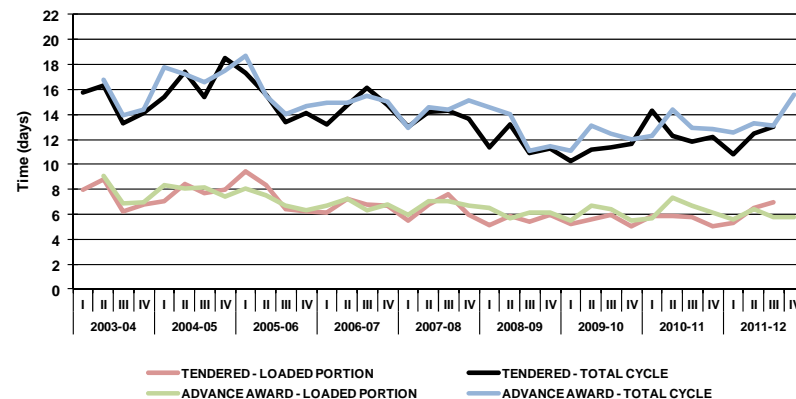


Figure 45: Car Cycle - Advance Car Awards



## COMMERCIAL DEVELOPMENTS

### Legislation Removing the CWB's Monopoly Enacted

As part of its plan to bring greater marketing freedom to prairie grain producers, the federal government moved forward with the development of the legislation needed to repeal the CWB's monopoly over the sale of western Canadian wheat and barley as of 1 August 2012.

As a preliminary step in this process, the government established a working group tasked with determining how the transition could best be accomplished. Their report, which was issued in late September 2011, suggested that market forces be allowed to take root and that any potential government intervention in its workings be limited.

Undeterred by opposition forces that claimed the government had failed to first consult with farmers, the government argued that Parliament had the constitutional right to amend the CWB's mandate, and that it would continue to work on the draft legislation needed to accomplish this within the timeframe originally laid out.<sup>36</sup> A little more than one month later, on 18 October 2011, the Minister of Agriculture and Agri-Food rose in the House of Commons to introduce Bill C-18, *The Marketing Freedom for Grain Farmers Act*.

In essence, Bill C-18 provided for a number of amendments to the *Canadian Wheat Board Act*, not the least of which would remove its long-standing monopoly over the sale of western Canadian wheat and barley. Although this would now extend to farmers the right to sell their grain on the open market, Bill C-18 also provided for the transformation of the CWB into a voluntary marketing entity, with interim support from the federal government while the organization transitioned to full private ownership. In addition to having the option of selling their grain directly

<sup>36</sup> This view led the CWB into initiating a plebiscite that would directly probe farmer sentiment over a possible surrendering of the CWB's monopoly. The results, which were reported in mid September, indicated that 62% favoured maintaining the single desk for wheat, while only 51% favoured maintaining it for barley.

to a grain company, the producer would also be able to sell it to a revamped CWB. Moreover, the CWB would itself be able to engage in the sale of any grain, not just wheat and barley.<sup>37</sup> The draft legislation also removed the hurdles that prevented farmers as well as grain companies from forward contracting for the delivery of wheat and barley on or after 1 August 2012.

Although the legislation met with the general favour of the grain industry at large, there still remained strong pockets of opposition within the producer community. A week after Bill C-18 was introduced, the CWB itself moved to challenge the legality of the government's action, announcing that it was filing a lawsuit in federal court. Once again, the central issues swirled around the intent of Section 47.1 of the *Canadian Wheat Board Act*, and the perceived need for a farmer plebiscite in advance of a change in the CWB's mandate. This action effectively paralleled one launched by the Friends of the Canadian Wheat Board in late June 2011.

In the meantime, the grain industry underscored its need for greater certainty as it stepped up its preparations for open-market operations. Building on this, and dismissing the merits of the legal challenges that had been brought forward, the government moved to progress its legislation quickly through Parliament. Not even a federal court ruling in December 2011, which held largely for the applicants, did much to sidetrack matters as the government quickly announced that it would appeal the decision.<sup>38</sup> Although the granting of Royal Assent on 15 December 2011 started the countdown towards the removal of the CWB's monopoly on 1 August 2012, farmers were given the immediate right to forward contract for the delivery of their next wheat and barley crops.

<sup>37</sup> The extension of the CWB's right to engage in the sale of additional grains would be limited only by the *Canada Grain Act*.

<sup>38</sup> The federal court ruled that the government had in fact failed to respect the provisions of Section 47.1 of the existing *Canadian Wheat Board Act*, thereby handing the CWB and the Friends of the Canadian Wheat Board an early legal victory in its efforts to prevent the government from enacting its proposed legislation. See *Friends of the Canadian Wheat Board v. Canada* (Attorney General) (2011 FC 1432) T-1057-11, T-1735-11, Dated 7 December 2011.



Along with the removal of the CWB's monopoly, there were a number of changes to the organization itself. Among the most visible of these was the replacement of the 15-member board of directors established in 1998 with a smaller, five-member board appointed by the federal government. With it, the CWB also announced a change in direction: indicating that it was dropping its lawsuit; and repositioning itself to compete in the post-monopoly environment of the upcoming 2012-13 crop year.

Although various legal actions continued to make their way through the court system, the grain industry was moving decidedly ahead with its preparations for the changeover. One of the most visible features in this was the issuance by a number of grain companies of forward-delivery contracts. The CWB indicated that it too would be offering farmers a variety of new pool and cash options, officially launching these products at the end of March 2012. In support of this, the CWB also signed what became the first of several agreements with individual grain companies, all of which would see these firms handling grain on behalf of the CWB.<sup>39</sup> These agreements, which codified the new commercial relationship with its former agents, also endowed the CWB with access to a grain-gathering network that extended throughout western Canada.

### Government Announces Transitional Support for Churchill

With the introduction of Bill C-18, *The Marketing Freedom for Grain Farmers Act*, the federal government also acknowledged that Churchill might well face a greater challenge in adapting to the realities of an open market on 1 August 2012 than other ports in western Canada. This was

due in large measure to the significant role played by the CWB in directing grain to the port for export.

In order to incent shippers to continue using Churchill as an export point for grain, the government announced that it would be providing an economic incentive of up to \$5.0 million per year for five years to support shipments of grain, including oilseeds, pulses and special crops, through this gateway. This was subsequently formalized as the Churchill Port Utilization Program. In addition, the government also indicated that it would be providing up to \$4.1 million over three years to maintain the port.

Concurrent with this, the government planned to extend its agreement with the Churchill Gateway Development Corporation on improvements to port infrastructure through 2015. The government also promised to consult with affected stakeholders in exploring the various longer-term options open for the future of Churchill.

### ICE Futures Canada Launches Wheat, Durum and Barley Contracts

Following the announcement of the federal government's plan to open the market for wheat and barley in western Canada, ICE Futures Canada began to design new commodity-specific futures contracts that would arm the grain industry with the standard open-market mechanisms for price discovery, hedging and risk management.<sup>40</sup> Intended for use by the trade at large, these instruments are aimed at providing buyers and

<sup>39</sup> The first grain-handling agreements were signed in March 2012 with Cargill Limited and South West Terminal Ltd. Six additional agreements were struck in June 2012 with Viterra Inc., Mission Terminal Inc., West Central Road and Rail Ltd., Delmar Commodities Ltd., Linear Grain Inc. and Agro Source Ltd. A further eleven were finalized at the close of the 2011-12 crop year with Richardson International Limited, Louis Dreyfus Canada Ltd., Parrish and Heimbecker Limited, Paterson Grain, Weyburn Inland Terminal Ltd., Prairie West Terminal Ltd., Providence Grain Group Inc., Great Sandhills Terminal Ltd., North West Terminal Ltd., Lethbridge Inland Terminal Ltd., Westlock Terminals (NGC) Ltd., Great Northern Grain Terminals Ltd. and Alliance Grain Terminal Ltd.

<sup>40</sup> A futures contract is a standardized contract between two parties to buy or sell a specified asset of standardized quantity and quality for an agreed upon price today with delivery and payment occurring at a specified future date. These contracts are negotiated through exchanges such as that operated by ICE Futures Canada, and which acts as an intermediary between the buyer and seller. ICE Futures Canada was formed in 2007 when Atlanta-based IntercontinentalExchange (ICE) acquired what was then the Winnipeg Commodity Exchange. With an ancestry that extends back to the Winnipeg Grain and Produce Exchange in 1887, ICE Futures Canada remains the country's only agricultural exchange, having both facilitated futures-contract trading since 1904 and overseen the establishment of the first fully-electronic exchange in North America in 2004.



sellers with more accurate market prices for spring wheat, durum and barley.

The new contracts trade in Canadian dollars and permit multiple delivery points in Western Canada designed to provide a representative price for these crops. Although based on its popular 20-tonne canola contract, the new wheat contract is built around a 100-tonne commitment, and a size that more closely reflects the standard American contract. Similarly, the new wheat contract is expected to compete against those traded in Minneapolis (hard red spring wheat), Chicago (soft red winter wheat) and Kansas City (hard red winter wheat). In contrast to the ICE Futures Canada contract for wheat, the contract for durum would be a unique trading instrument while those for barley would have few competitors.

The new ICE Futures Canada contracts began trading on the electronic exchange on 23 January 2012. While initial trading volumes proved relatively low, industry participants believed that these instruments would begin to attract greater interest and usage as the 2012-13 crop year neared. To some extent, this proved true, as the number of wheat contracts traded in the last month of the 2011-12 crop year edged upwards.

### Initiative to Develop Railway Service Agreement

In response to the concerns that had been raised by the majority of rail shippers regarding the state of railway service in Canada, the federal government committed itself in early 2008 to a review of railway service. This review was conducted in two phases: the first centred on gathering and analyzing data relating to the railways' performance during a two-year period between 2006 and 2008; while the second employed a panel of eminent persons to review the work completed in the first phase, and to consult with the stakeholder community regarding any problems identified.<sup>41</sup>

41 Representatives from all corners of the grain industry were actively involved in this process, which resulted in submissions from the Western Grain Elevator Association, the Inland Terminal Association of Canada, and numerous commodity and producer groups. For

The panel formally submitted its final report to the Minister of State (Transport) in late December 2010. After due consideration, the Government of Canada formally released the panel's report on 18 March 2011. In broad terms, the panel found that there was an imbalance in the commercial relationship between the railways and other stakeholders, but believed that a commercial - rather than a regulatory - approach provided the best means of rectifying this imbalance.

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

Building on this, the Minister of Transport announced on 31 October 2011 that Jim Dinning, an Alberta businessman and former provincial cabinet minister, had been appointed to facilitate the negotiations aimed at developing the promised template service agreement and commercial dispute resolution mechanism. This effort, which got under way early in the second quarter, drew to a close in April 2012. In his final report, which was presented to the minister in early June, the facilitator indicated that while some progress towards these goals had been made, he was ultimately unable to bridge the divide that existed between shippers and carriers in the development of acceptable conventions.

Despite this, Mr. Dinning claimed that the process had in fact led to a potentially workable solution; one that only needed a fair chance at success. Mindful of the government's objective, he recommended that

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

Transport Canada consider a three-tiered, traffic-based approach to the development of a template service agreement, and that this be used as a guide to all stakeholders in fashioning their own negotiated agreements. He also urged the government to consider a timelier and more cost-effective proposal for the resolution of disputes than now afforded by the *Canada Transportation Act*.

Although the commercially-oriented recommendations of the facilitator built widely upon the service improvements that had been made in recent years, the government ultimately noted that the process was distinct from the bill it was planning to introduce in response to the review of railway service. To this end, the Minister of Transport indicated that he would be engaging further with stakeholders before introducing this legislation in the House of Commons in the fall of 2012.

#### **Viterra Inc. Agrees to Acquisition by Glencore International PLC**

In the months following the federal government's announcement of its plan to change the mandate of the Canadian Wheat Board, there was widespread speculation on how this might affect the structure of the grain industry in Canada. Much of this speculation focused on the potential for further consolidation and which grain companies could become acquisition targets. Although a number of the trade's leaders acknowledged the possibility that such a scenario might play out in the first few years following the establishment of an open grain market in Canada, none indicated that they were actively contemplating the sale or merger of their own firms.

The trade was therefore taken somewhat aback when, on 9 March 2012, Viterra Inc. (Viterra) revealed that it had received expressions of interest in a possible acquisition from unspecified third parties.<sup>42</sup> Just ten days later, a second statement announced that Viterra had in fact entered into

42 As the largest grain handler in western Canada, Viterra Inc. was regarded as a particularly attractive takeover candidate. This view stemmed chiefly from the fact that its shares were the sole ones among its peers to trade publically, all others being privately held (including those of wholly-owned subsidiaries such as Cargill).

exclusive discussions with a still unidentified suitor for a possible takeover of the company. The very next day, on 20 March 2012, Viterra announced that it had agreed to be acquired by Glencore International PLC (Glencore) in an all-cash transaction valued at approximately \$6.1 billion.<sup>43</sup>

Formed through the takeover of Agricore United by Saskatchewan Wheat Pool in 2007, Regina-based Viterra was Canada's largest grain company. At the close of April 2012, the company controlled a domestically based network encompassing 96 licensed primary and process elevators, along with seven port terminals. These assets were employed in handling about 45% of all the grain delivered by producers in western Canada. In addition to grain handling, Viterra also had an extensive retail network, with 258 outlets across western Canada selling a variety of crop inputs.

Viterra had grown significantly beyond its Canadian roots, becoming a vertically integrated agri-business with almost \$12 billion in annual revenues. Much of this growth was occasioned by the company's \$1.4 billion acquisition of Australia's largest agri-business, ABB Grain Ltd., in 2009. This resulted in Viterra becoming a major grain marketer with sourcing resources in two hemispheres. In addition to its extensive holdings in Canada and Australia, Viterra also owned facilities in the United States, New Zealand and China.

With revenues of \$186.2 billion US in 2011, Glencore is one of the largest mining and commodity-trading companies in the world. Headquartered in Baar, Switzerland, the company has extensive interests in producing, processing, and marketing a wide variety of metals and minerals, energy and agricultural products. Although the \$17.1 billion in revenues generated by Glencore's extensive agricultural holdings outdistanced that produced by Viterra's, its assets were geographically based in Europe, Asia and South America. Having already stated that the company wanted

43 Glencore agreed to pay \$16.25 per share for all issued and outstanding shares of Viterra. This represented the payment of a 50% premium over the closing price for Viterra's stock on 8 March 2012, the day immediately prior to the formal revelation by Viterra that it had received expressions of interest in its possible acquisition.

to strengthen its position in the world grain and oilseed markets, the acquisition of Viterra clearly presented Glencore with an opportunity to add appreciably to its existing grain handling infrastructure. However, there was a greater synergistic dimension to the proposed combination given the complementary geographic character of the two operations. This would allow Glencore to develop its physical reach within North America while further leveraging the sway of its growing international network.

Glencore did not propose to simply absorb Viterra. Concurrent with the disclosure of its planned acquisition of Viterra, Glencore announced that it had also entered into separate agreements with Agrium Inc. (Agrium) and Richardson International Limited (Richardson International) for the sale of specific Viterra assets. Under these agreements, Agrium was to acquire approximately 90% of Viterra's Canadian retail crop input facilities, all of its Australian retail facilities, and its minority position in Canadian Fertilizer Limited's nitrogen production facility in Medicine Hat, Alberta. Similarly, Richardson International was to acquire 23% of Viterra's Canadian grain handling assets, including 19 grain elevators and the crop input centers co-located with those elevators, a 25% ownership interest in Vancouver's Cascadia Terminal, a Viterra export terminal in Thunder Bay, along with its Can-Oat Milling and 21st Century grain processing subsidiaries.

There was little doubt that these subsequent divestitures would change the competitive landscape by narrowing the commercial differences that had existed between the two largest grain handlers in western Canada. Each of these transactions would be subject to the receipt of the prerequisite court, shareholder and regulatory approvals; both foreign and domestic.

The first of these hurdles was passed in early May 2012 when Glencore received a "No Action" letter from the Competition Bureau of Canada and the statutory waiting period for an American antitrust review expired. This was followed on 29 May 2012 by a special meeting of Viterra shareholders, who voted 99.8% in favour of the Glencore acquisition, and

just two days later, by a final order approving the takeover under the *Canada Business Corporations Act* from the Ontario Superior Court of Justice. Australian authorities soon gave their consent as well. By the close of the 2011-12 crop year, however, China's Ministry of Commerce had still not weighed in with its regulatory approval. This effectively meant that the transaction could not be closed in advance of the 2012-13 crop year.

### Disruption to Canadian Pacific Railway Service

In advance of the collective agreements that were set to expire on 1 January 2012, the Teamsters Canada Rail Conference (TCRC), which represented some 4,800 employees of the Canadian Pacific Railway, entered into negotiations with the carrier for new contracts. However, by the spring of 2012 a conclusion to the bargaining still remained elusive. Although much of the disagreement between the two parties stemmed from the railway's efforts to obtain major concessions on pensions, work rules and wages, union concerns over employee fatigue and the balancing of their work and home lives also remained unresolved.

In late April 2012 the union membership, dissatisfied with the lack of progress, voted 95% in favour of giving their bargaining committee the mandate to initiate strike action if needed. This was ultimately followed by the issuance of a formal strike notice to CP on 19 May 2012, with a work stoppage slated to begin at midnight on 23 May 2012. For its part, the railway's management indicated that it was not prepared to maintain service in the event of a work stoppage, and would instead proceed with a structured shut down of its Canadian train operations.

In Ottawa, federal labour minister, Lisa Raitt, expressed concern, urging both parties to either come to terms or submit to a binding process aimed at settling their dispute and avoiding a work stoppage. An eleventh-hour summons by the minister did little to resolve the differences between the TCRC and CP. With railway service suspended, the minister moved quickly to announce that the federal government was set to intercede in a dispute that was estimated to cost the Canadian

economy more than \$540 million per week and which threatened the layoff of thousands of workers in other affected industries. To this end the minister announced that the House of Commons had already been given appropriate notice of the government's plan to introduce back-to-work legislation.

Although conciliation efforts spurred further negotiations between the TCRC and CP, the talks soon stalled. Ultimately, the TCRC withdrew from these discussions altogether. Against protests from various labour leaders, the federal government introduced Bill C-39, the Restoring Rail Service Act, in the House of Commons on 28 May 2012. The Bill received Royal Assent three days later. In essence, the legislation put an immediate end to the work stoppage and sent the disputed issues between the two parties into an interest-based binding arbitration process.

Although CP's operations in the United States remained unaffected, the strike effectively halted the company's train movements in Canada for 10 days. With the movement of a whole host of bulk commodities, semi-processed and manufactured goods being arrested, the effects of the strike rippled across all sectors of the Canadian economy. The GHTS was equally impacted, with a portion of the grain available for movement being held back in the country. Although some grain was diverted into CN-served elevators, this served to provide only partial relief. The constricted flow of grain into the terminal-elevator system resulted in a backlog of traffic that required several weeks to fully disperse. This was manifest in longer railway transit times as well as in delays to vessels awaiting the arrival of these trains at port, particularly insofar as Vancouver was concerned.

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## Section 5: System Efficiency and Performance

Indicator Description	Table	2011-12								
		1999-00	2009-10	2010-11	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Operations</b>										
Average Elevator Capacity Turnover Ratio	5A-1	4.8	6.2	5.7	1.5	1.6	1.6	1.3	6.0	5.3%
Average Weekly Elevator Stock Level (000 tonnes)	5A-2	3,699.3	2,832.6	2,722.9	2,774.8	2,927.1	2,971.5	1,990.4	2,660.8	-2.3%
Average Days-in-Store (days)	5A-3	41.7	30.5	30.8	28.1	28.3	28.5	24.9	27.6	-10.4%
Average Weekly Stock-to-Shipment Ratio - Grain	5A-4	6.2	4.3	4.5	4.3	3.9	4.3	3.7	4.1	-8.9%
<b>Railway Operations</b>										
Railway Car Cycle (days) - Empty Movement	5B-1	10.7	6.7	7.2	7.0	6.7	6.9	8.5	7.2	0.0%
Railway Car Cycle (days) - Loaded Movement	5B-1	9.2	6.5	7.1	6.6	6.8	6.9	6.5	6.7	-5.8%
Railway Car Cycle (days) - Total Movement	5B-1	19.9	13.2	14.3	13.5	13.5	13.7	15.0	13.9	-2.9%
Railway Car Cycle (days) - Non-Special Crops	5B-2	19.3	13.1	14.2	13.4	13.4	13.6	14.8	13.8	-3.0%
Railway Car Cycle (days) - Special Crops	5B-3	25.8	15.3	15.3	15.6	16.1	15.6	18.9	16.3	6.1%
Railway Transit Times (days)	5B-4	7.8	5.5	6.0	5.4	5.7	5.9	5.4	5.6	-6.9%
Hopper Car Grain Volumes (000 tonnes) - Non-Incentive	5B-5	12,718.7	5,747.7	5,500.2	1,739.3	1,059.3	1,295.4	1,333.9	5,427.9	-1.3%
Hopper Car Grain Volumes (000 tonnes) - Incentive	5B-5	12,945.9	22,030.1	21,596.5	6,170.5	6,097.3	5,809.4	4,647.7	22,725.0	5.2%
Hopper Car Grain Volumes (\$ millions) - Incentive Discount Value	5B-6	\$31.1	\$146.4	\$145.5	\$41.6	\$42.4	\$40.4	\$30.2	\$154.6	6.3%
Traffic Density (tonnes per route mile) - Grain-Dependent Network	5B-7	442.5	608.5	534.8	657.6	598.1	608.2	504.4	592.1	10.7%
Traffic Density (tonnes per route mile) - Non-Grain-Dependent Network	5B-7	292.5	332.5	340.9	389.8	351.9	345.7	293.0	345.1	1.2%
Traffic Density (tonnes per route mile) - Total Network	5B-7	330.4	387.9	379.9	443.6	401.4	398.5	335.5	394.7	3.9%
<b>Terminal Elevator Operations</b>										
Average Terminal Elevator Capacity Turnover Ratio	5C-1	9.1	10.0	9.9	n/a	n/a	n/a	n/a	11.1	12.1%
Average Weekly Terminal Elevator Stock Level (000 tonnes)	5C-2	1,216.2	1,274.8	1,197.8	1,211.1	1,141.4	1,155.9	862.0	1,091.6	-8.9%
Average Days-in-Store - Operating Season (days)	5C-3	18.6	16.2	15.5	15.7	13.6	13.6	12.7	13.9	-10.3%
<b>Port Operations</b>										
Average Vessel Time in Port (days)	5D-1	4.3	6.2	9.9	5.2	7.7	6.7	6.8	6.6	-33.3%
Annual Demurrage Costs (\$millions)	5D-4	\$7.6	\$11.2	\$50.1	n/a	n/a	n/a	\$14.9	14.9	-70.2%
Annual Dispatch Earnings (\$millions)	5D-4	\$14.5	\$17.2	\$9.4	n/a	n/a	n/a	\$9.0	\$9.0	-4.6%
Avg. Weekly Stock-to-Vessel Requirements Ratio - VCR - Wheat	5D-5	3.1	2.3	2.4	2.3	2.6	1.4	1.3	1.9	-21.2%
Avg. Weekly Stock-to-Vessel Requirements Ratio - VCR - Canola	5D-5	2.5	1.5	0.7	1.6	1.6	1.6	1.4	1.6	141.9%
Avg. Weekly Stock-to-Vessel Requirements Ratio - TBY - Wheat	5D-5	5.6	5.3	4.7	3.7	4.3	3.7	2.9	3.6	-24.1%
Avg. Weekly Stock-to-Vessel Requirements Ratio - TBY - Canola	5D-5	2.8	3.9	4.6	4.2	2.6	3.7	2.4	3.4	-26.9%
Avg. Weekly Stock-to-Shipment Ratio - VCR - CWB Grains	5D-7	3.5	2.8	3.7	3.3	2.8	4.2	3.1	3.5	-7.5%
Avg. Weekly Stock-to-Shipment Ratio - VCR - Non-CWB Grains	5D-7	3.6	1.8	1.0	1.9	1.8	1.7	0.9	1.7	80.3%
Avg. Weekly Stock-to-Shipment Ratio - TBY - CWB Grains	5D-7	4.6	4.8	4.6	3.2	3.1	3.1	2.0	3.1	-33.0%
Avg. Weekly Stock-to-Shipment Ratio - TBY - Non-CWB Grains	5D-7	3.3	5.2	5.1	4.2	3.4	7.3	5.8	4.5	-11.3%
Terminal Handling Revenue (\$millions)	5D-8	\$274.8	\$389.2	\$416.2	n/a	n/a	n/a	\$458.6	\$458.6	10.2%
CWB Carrying Costs (\$millions)	5D-8	\$94.7	\$147.6	\$146.6	n/a	n/a	n/a	\$178.8	\$178.8	22.0%
<b>System Performance</b>										
Total Time in Supply Chain (days)	5E-1	68.1	52.2	52.3	49.2	47.6	48.0	43.0	47.1	-9.9%

## 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 in large measure to a 9.5% increase in throughput, the turnover ratio for the 2011-12 crop year rose by 5.3%, to 6.0 turns from 5.7 turns a year earlier. [Table 5A-1]

This gain was built on the comparatively stronger showings of three producing provinces: British Columbia, Alberta and Saskatchewan. British Columbia reported the most substantive gain, with its ratio climbing by 119.4%, to 7.9 turns from 3.6 turns. This was followed by Alberta, which posted an increase of 20.8%, with its ratio rising to 8.7 turns from 7.2 turns a year earlier. In support was Saskatchewan, where the ratio rose by a more modest 5.8%, to 5.5 from 5.2. Running counter to these results was Manitoba, where a 28.8% reduction lowered its ratio to 3.7 turns from 5.2 turns.

While the turnover ratio is sensitive to changes in volume, much of the real improvement witnessed since the beginning of the GMP has come from a reduction in storage capacity. Although the primary elevator system's storage capacity has now begun to increase, the net loss of 820,800 tonnes since the beginning of the GMP has served to bolster the turnover ratio by 9.1%. Had storage capacity not been reduced to this degree, the turnover ratio for the 2011-12 crop year would have been 5.5 turns instead of 6.0 turns.

### 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.

Notwithstanding periodic fluctuations, approximately half of the GHTS's primary elevator storage capacity is actively employed in maintaining its

Figure 46: Primary Elevator Capacity Turnover Ratio

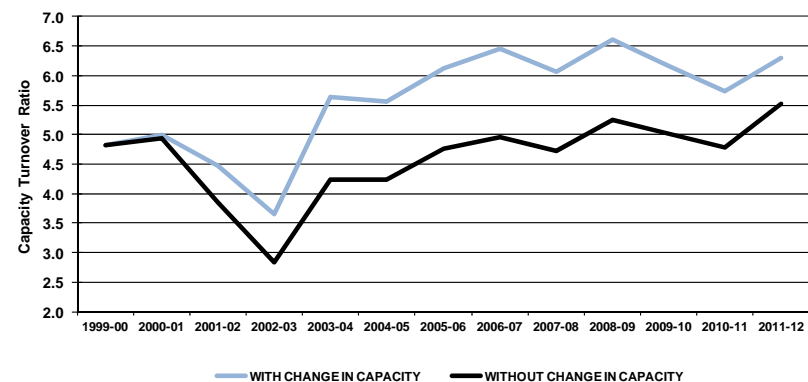
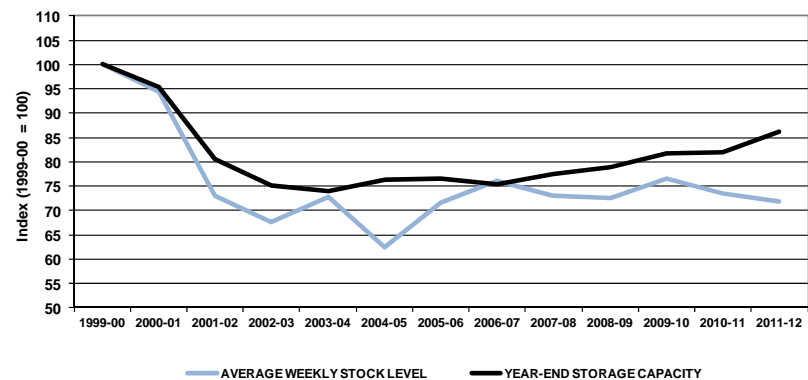


Figure 47: Change in Average Weekly Stock Levels



grain inventories. What is more, with the system’s associated storage capacity having contracted by some 6.8%, today’s stocks typically stand well below the 3.7-million-tonne average benchmarked at the beginning of the GMP. Even with the contemporary expansion in storage capacity the system’s average has seldom exceeded 3.0 million tonnes. This was again the case in the 2011-12 crop year when average primary elevator inventories fell by 2.3%, effectively remaining unchanged at 2.7 million tonnes. [Table 5A-2]

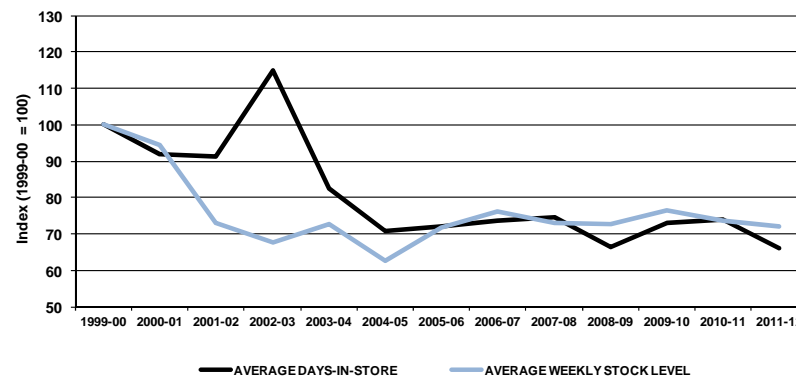
Just as the average stock level has moved generally lower, so too has the average amount of time spent by grain in inventory. While seasonality remains a factor, the quarterly average has continued to fluctuate around the 30-day mark for several years. Still, these values stand about ten days below the GMP’s base-year average of 41.7 days, contributing significantly to the improved speed with which grain moves through the GHTS. The 27.6-day average posted for the 2011-12 crop year once again proved consistent with this, falling 10.4% below the 30.8-day average reported a year earlier. This result largely reflected the reduced storage times for wheat, barley, canola and oats, whose stocks turned over faster in the face of strong market demand. [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>44</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]

<sup>44</sup> In the event that the ratio of these two values amounts to 1.0, it would mean that country elevator stocks exactly equalled shipments made in the following week. A ratio above this value would denote a surplus supply in the face of short-term needs.

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



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

Province	Days-in-Store	Change	Grain	Days-in-Store	Change
British Columbia	28.9 days	Down 35.9%	CWB Grains		
Alberta	22.1 days	Down 19.6%	Barley	17.7 days	Down 16.1%
Saskatchewan	29.6 days	Down 7.5%	Wheat	33.8 days	Down 4.0%
Manitoba	37.0 days	Up 9.5%	Durum	36.1 days	Up 38.8%
			Non-CWB Grains		
			Canola	17.0 days	Down 40.4%
			Oats	30.8 days	Down 26.1%
			Flaxseed	28.8 days	Down 16.3%
			Peas	28.7 days	Up 17.6%



As the average amount of time spent in inventory has fallen, so too has the stock-to-shipment ratio, which reached an annualized low under the GMP of 3.9 in the 2008-09 crop year. Although this was followed by increases in each of the next two crop years, the ratio once again moved lower in the 2011-12 crop year, falling by 8.9%, to 4.1 from 4.5 a year earlier. As with other measures, this annualized result obscures the fluctuations in the quarterly values, which effectively fell from 4.3 in the first quarter to a low of 3.7 in the fourth. This in turn reflected the depletion of grain inventories that were, at least in part, being drawn down by a strong sustained demand.

### 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. Bearing in mind the operational problems that gave rise to an elongation of the car cycle a year earlier, the 2011-12 crop year showed modest improvement, falling by 2.9%, to an average of 13.9 days from 14.3 days. However, this improvement was also undermined by a poorer showing in the fourth quarter, which saw the average spike to 15.0 days owing to the effects of a ten-day service disruption at CP.

This result was driven primarily by improvements in both of the west-coast corridors. With a 5.7% reduction, movements in the Vancouver corridor posted the greatest overall decline, with the average cycle falling to 14.3 days from 15.2 days a year earlier. This was followed by a 2.8% reduction in the Prince Rupert corridor, which saw its average fall to 12.2 days from 12.5 days. Detracting from these advances was a 3.7% increase in the Thunder Bay cycle, where the average rose to 14.5 days from 13.9 days twelve months earlier. [Table 5B-1]

These reductions were largely manifest in the loaded portion of the car cycle, with the average time under load falling by 5.8%, to 6.7 days from 7.1 days a year earlier. The empty portion of the movement remained unchanged at 7.2 days.

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

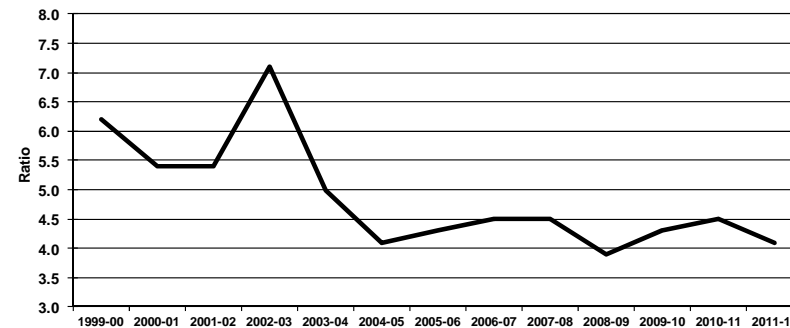
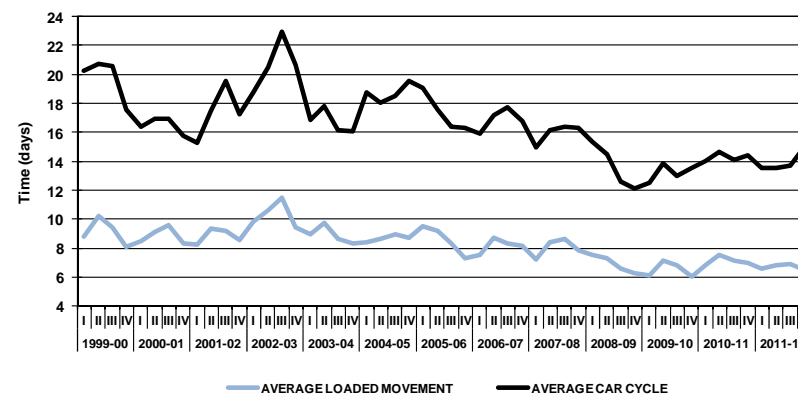


Figure 51: Average Railway Car Cycle



CN and CP both posted reductions in their average cycles, although the 2.6% decline posted by CN was somewhat outpaced by the 3.2% decrease reported by CP. However, the results proved more mixed when gauging the changes in the loaded and empty portions of each carrier's car cycle. There was greater consistency in CN's results, with the carrier posting a decrease of 1.9% in its loaded movement and a 3.5% reduction in its empty movement. The shifts for CP proved much different, with a 9.8% reduction in its loaded movement and a 2.2% increase in its empty movement. The more substantive reduction in the former was indicative of CP having surmounted the problems that had undermined its service offering a year earlier.<sup>45</sup> However, these gains were partially undermined by a spiking in the carrier's fourth-quarter average, which reflected the effects of a 10-day service disruption that began in late May 2012.

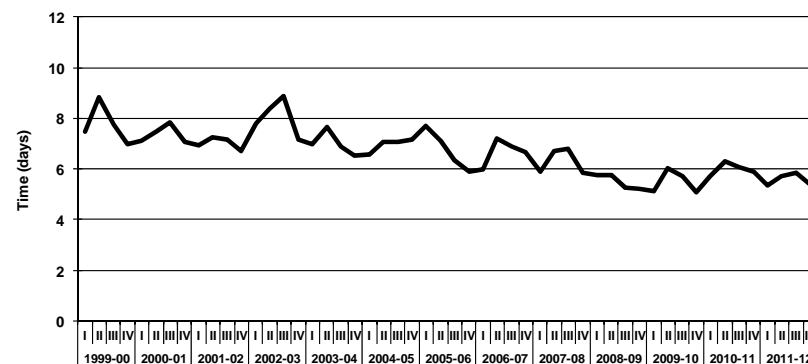
A reduction in the car cycle for the movement of non-special crops was also observed, with the average falling 3.0%, to 13.8 days from 14.2 days a year earlier. However, the reverse was true for special crops, with its average rising by 6.1%, to 16.3 days from 15.3 days. This value proved to be 18.1% greater than that of non-special crops. On the whole, these results continued to point to a structural disadvantage being given to the movement of special crops. In large measure, this appears to be linked to the character of special-crop shipments, which generally move as small-block shipments in regular freight service rather than in the unit-train lots typical of non-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

<sup>45</sup> CP's performance in the 2010-11 crop year was undermined by a variety of service problems. Although initially tied to a June 2010 washout of the carrier's mainline near Medicine Hat, Alberta, its disruptive effects were amplified by the operational difficulties that had been plaguing the railway since the beginning of 2010. Moreover, the situation only worsened in the second quarter as an unusually heavy accumulation of snow in the southern Rockies, which occasioned avalanches and related control efforts, began to wreck havoc on the carrier's operations in the Vancouver corridor. These continued to reverberate through the third quarter.

Figure 52: Average Loaded Transit Time



in moving grain from a country elevator to a port terminal for unloading. As with the overall car cycle, the average loaded transit time has moved gradually lower. Despite quarterly fluctuations, by the close of the 2010-11 crop year, 1.8 days had been shed from the 7.8-day average reported at the beginning of the GMP. The railways' loaded transit time declined again in the 2011-12 crop year, falling by 6.9%, to an average of 5.6 days from 6.0 days a year earlier. As with the average car cycle, this result was largely shaped by the improvement in CP's service offering.

Still, the consistency of the railway service provided remains a concern for many grain shippers. In an effort to gauge that consistency, the GMP examines the coefficient of variation surrounding the average loaded transit time. Although this measurement improved by a factor of 25% in the first four years of the GMP, it has continued to fluctuate around the 35.0% mark in subsequent years. This indicates that a high degree of variability remains in the underlying distributions. Although the 2011-12 crop year saw the coefficient of variation fall by 4.5%, to 30.9% from 32.3% a year earlier, there still remained a high degree of variability in

the amount of time it took a loaded railcar to move between any two given points.<sup>46</sup> [Table 5B-4]

### Multiple-Car Blocks

In the 2011-12 crop year, 22.7 million tonnes of grain moved in the multiple-car blocks that offered discounted freight rates. In addition to denoting a 5.2% increase over the 21.6 million tonnes handled a year earlier, it also represented the fourth consecutive instance wherein MCB shipments actually exceeded 20 million tonnes, and established a new volume record for such shipments 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. At the same time, they also moved to reduce, and ultimately eliminate, the discounts on movements in blocks of 25-49 cars.<sup>47</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 2010-11 crop year, 79.7% 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. By extension, the proportion of grain moving in smaller, non-discounted car blocks declined steadily, to 20.3% from 49.6%. At the same time, the annual value of the discounts earned by grain shippers - estimated as a gross savings in railway freight charges - more than quadrupled,

46 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 distributions tied to each origin-destination pair. 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.

47 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 53: Railway Traffic Moving Under Incentive

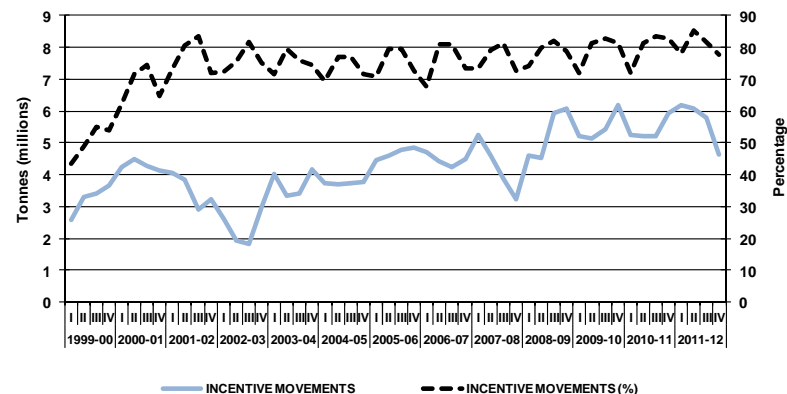
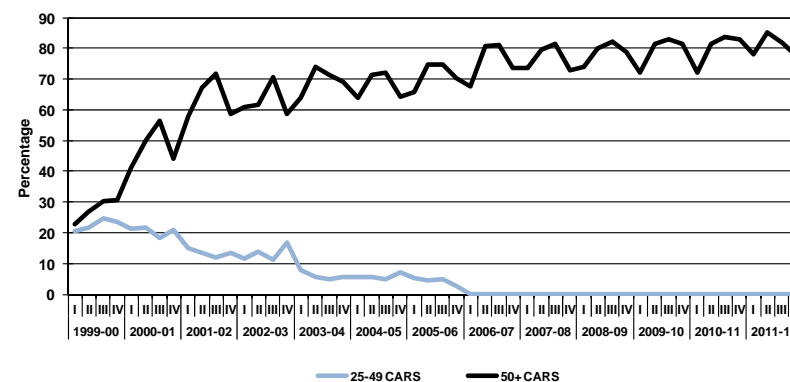


Figure 54: Composition of Multiple-Car-Block Movements



climbing to an estimated \$145.5 million from \$31.1 million. However, this savings expansion was largely the product of a more substantive increase in the per-tonne discounts than it was of the traffic base.

Still, the increased tonnage moving under discounted freight rates in the 2011-12 crop year precipitated a 6.3% rise in the earned value of these discounts, which reached an estimated \$154.6 million against \$145.5 million a year earlier. This was also reflected in a greater average earned discount, which is estimated to have risen to \$6.80 per tonne from \$6.74 per tonne. [Table 5B-6]

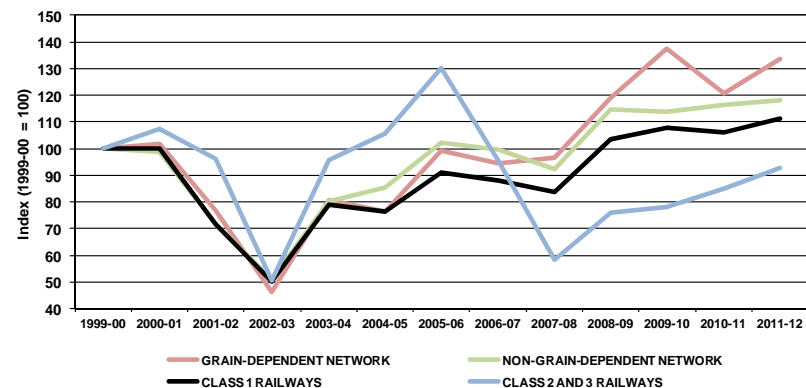
### Traffic Density

Another indicator of railway efficiency is traffic density. With a quarterly average of 394.7 originated tonnes per route-mile, overall density in the 2011-12 crop year was 3.9% greater than the 379.9 tonnes per route-mile observed a year earlier.<sup>48</sup> It is worth noting that this average ranked as the highest yet recorded under the GMP. Although much of the gain exhibited over the last 13 years stems from the diminishing span of the GHTS's railway infrastructure, it has also been sustained by the movement of generally larger grain volumes.

Moreover, given comparatively small changes in the railway network, this indicator is highly sensitive to variations in traffic volume. For example, with no change in the grain-dependent network, a 10.7% increase in originated tonnage resulted in a corresponding rise in traffic density, which climbed to an average of 592.1 tonnes per route-mile from 534.8 tonnes per route-mile a year earlier. Similarly, a 1.2% increase in the amount of grain shipped from the non-grain-dependent network yielded a 1.2% gain in its traffic density, which rose to an average of 345.1 tonnes per route-mile from 340.9 tonnes per route-mile. [Table 5B-7]

<sup>48</sup> Traffic density is determined by relating grain volumes for a specific period of time to the number of route-miles comprised within the western Canadian railway network at the end of that same period. Although year-over-year measurements are comparable, they cannot be directly gauged against quarterly measurements. For this reason, an average of the year's quarterly values is used as a substitute.

Figure 55: Change in Railway Traffic Density



Comparable volatility can be seen when comparing the change in density for Class 1 and non-Class-1 carriers, with the latter being far more sensitive to changes in both volume and infrastructure. By way of example, a 3.4% increase in volume coupled with a 1.5% reduction in infrastructure resulted in the traffic density for the Class 1 carriers rising by 4.9%, to an average of 449.6 tonnes per route-mile from 428.6 tonnes per route-mile a year earlier. Owing in large measure to the volume gain now being handled by Big Sky Rail, the traffic density associated with non-Class-1 carriers rose by 8.8%, to an average of 100.3 tonnes per route-mile from 92.1 tonnes per route-mile.

### TERMINAL ELEVATOR OPERATIONS

Owing to a 5.8% increase in throughput in the 2011-12 crop year, the terminal elevator system’s capacity-turnover ratio rose by 12.1%, to a record-setting 11.1 turns from 9.9 turns a year earlier.<sup>49</sup> Thunder Bay reported the largest gain among the four ports in western Canada, with its ratio rising by 21.7%, to a GMP record of 5.6 turns from 4.6 turns the year before. The west coast ports of Vancouver and Prince Rupert both reported more modest gains, with Vancouver’s rising by 5.4%, to 15.7 turns from 14.9 turns, and Prince Rupert’s increasing by 4.6%, to 22.6 turns from 21.6 turns. Only Churchill reported a reduction in its ratio, which fell by 21.3%, to 3.7 turns from 4.7 turns. [Table 5C-1]

### Terminal Elevator Inventories

Over the course of the GMP, the amount of grain held in inventory at terminal elevators has had a fairly consistent relationship with the system’s overall handlings, generally encompassing from 20% to 25% of the quarterly throughput. Despite the increase in terminal throughput, the average weekly stock level declined by 8.9% in the 2011-12 crop year, to 1.1 million tonnes from 1.2 million tonnes.

A combined 167,600-tonne reduction in the stocks held at Thunder Bay and Churchill, which fell by 27.7% and 14.5% respectively, accounted for much of this overall tightening. To an extent, this was tempered by a 61,400-tonne build-up in west-coast inventories, which rose by 12.5% at Vancouver and 5.2% at Prince Rupert.

<sup>49</sup> The capacity turnover ratio of the terminal elevator network is a simple average based on each facility’s individual handlings. As such, the measures for Vancouver and Thunder Bay, as well as the GHTS at large, can be skewed by outlying values. The magnitude of the year-over-year change cited here is not tied to a change in throughput alone.

Figure 56: Average Terminal Elevator Capacity Turnover

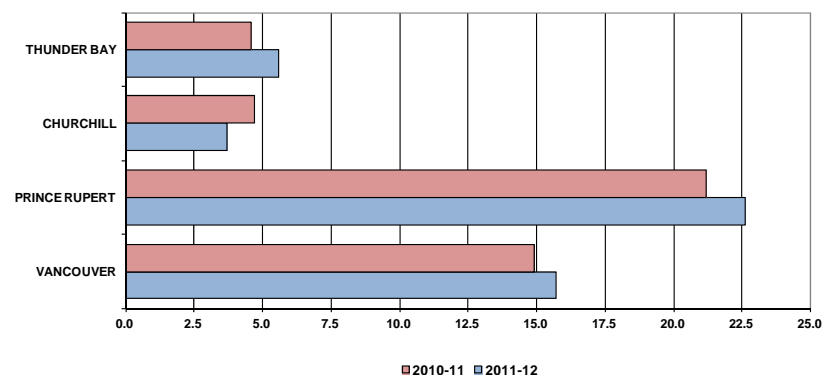
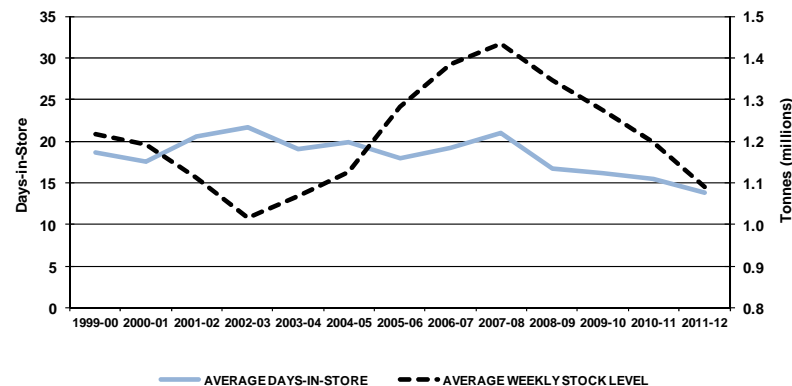


Figure 57: Terminal Elevators - Weekly Stock Level and Days-in-Store



As in past years, wheat stocks again constituted the largest single commodity held in inventory. However, these stocks declined by 18.9%, to 438,300 tonnes from 540,200 tonnes a year earlier. The same was true of barley, which posted a 47.1% reduction, falling to 89,700 tonnes from 169,500 tonnes. In large measure, these reduced stocks gave way to increased durum and canola inventories, which rose by 31.3% and 41.7% respectively. [Table 5C-2]

### Days in Store

Alongside the decline in terminal stocks came a 10.3% reduction in the amount of time grain spent in inventory, with the overall number of days-in-store falling to an average of 13.9 days from 15.5 days a year earlier. Moreover, this constituted the fourth consecutive low set under the GMP since the 2007-08 crop year. Much of the impetus for this came from a 30.8% reduction at Thunder Bay, which saw its average fall to a record-setting low of 18.9 days from 27.3 days. This was supported by more moderate decreases of 7.7% at Prince Rupert and 3.9% at Churchill. The only port to post an increase was Vancouver, which reported a 7.3% gain, with its average rising to 11.7 days from 10.9 days. [Table 5C-3]

Despite the general reduction, the storage times associated with the majority of individual grains actually saw increases. These included gains on peas of 26.0%; canola, 18.2%; barley, 16.1%; durum, 3.8%; and flaxseed, 0.5%. Even so, oats and wheat registered more significant storage-time reductions. Although oats posted a reduction of 41.2%, to an average of 84.9 days from 144.3 days a year earlier, it was the 28.2% reduction in the storage time for wheat that held the most sway. In fact, the 12.7-day average given over to wheat proved to be the lowest yet recorded under the GMP.

### 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

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

	Days in Store	Change	Remarks
<b>Terminal Ports</b>			
Thunder Bay	18.9 days.	Down 30.8%	Highest average number of days-in-store
Prince Rupert	12.0 days	Down 7.7%	
Churchill	14.6 days	Down 3.9%	
Vancouver	11.7 days	Up 7.3%	Lowest average number of days-in-store
<b>Notable Grains</b>			
Oats	84.9 days	Down 41.2%	Highest average number of days-in-store
Wheat	12.7 days	Down 28.2%	
Flaxseed	22.2 days	Up 0.5%	
Durum	18.9 days	Up 3.8%	
Barley	36.0 days	Up 16.1%	
Canola	10.4 days	Up 18.2%	
Peas	9.2 days	Up 26.0%	Lowest average number of days-in-store

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>50</sup>

For Vancouver, the average ratio on most grains stood comfortably above a value of 2.0. The chief exceptions to this proved to be wheat and canola, which posted average ratios of 1.7 and 1.3 respectively. Save for wheat, which posted a reduction of 32.0%, all of the port's ratios moved higher. Although Prince Rupert reported lower ratio values than did Vancouver, the change in these ratios presented a similar pattern. Here the ratio for wheat declined by 25.7% while that of canola increased by 37.2%. [Table 5C-4]

<sup>50</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.

The ratios posted by Thunder Bay also stood well above a value of 2.0. Still, many of these ratios showed marked reductions from those posted a year earlier. Among the most noteworthy declines were: wheat, 47.3%; barley, 67.4%; and canola, 31.2%. Churchill reported comparatively lower ratio values than did Thunder Bay, with its ratio for wheat rising by 16.1% while that tied to durum fell by 50.5%.

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 suggest much the same. [Table 5C-5]

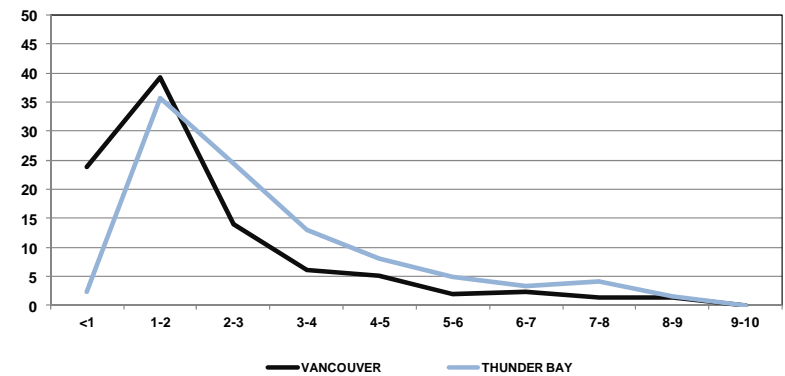
When examining the frequency with which weekly stock-to-shipment ratios fell below a value of 1.0, the ports of Vancouver and Thunder Bay can both be seen to have had fewer such instances in the 2011-12 crop year.<sup>51</sup> In the case of Vancouver this happened about 23.8% of the time, down from the 29.4% occurrence rate posted a year earlier. At Thunder Bay such incidences were almost nonexistent, with the occurrence rate falling to 2.4% from 6.3% a year earlier.

**PORT OPERATIONS**

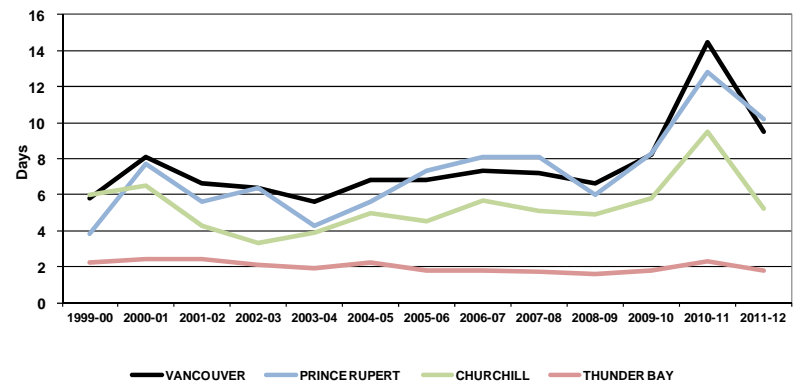
A total of 793 vessels called for grain at western Canadian ports during the 2011-12 crop year. This represented a 3.0% increase over the 770 ships that arrived for loading a year earlier. This gain was entirely attributable to a 12.4% increase in the number of vessels calling at Thunder Bay, which rose to 300 from 267. In fact, this 33-vessel increase more than compensated for the ten fewer calls made at Vancouver and Churchill.

<sup>51</sup> A stock-to-shipment ratio of less than 1.0 does not mean that the port’s terminal elevators were unable to meet vessel demand. Rather, it implies that existing grain inventories were insufficient, and that the shortfall would have to be covered using future railway deliveries.

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



**Figure 60: Average Vessel Time in Port**





### Average Vessel Time in Port

The average amount of time spent by vessels in port decreased by 33.3% in the 2011-12 crop year, falling to an average of 6.6 days from the 9.9-day high set a year earlier. This decline was largely shaped by a 44.4% reduction in the amount of time vessels spent waiting to load, which fell to an average of 3.0 days from 5.4 days a year earlier.<sup>52</sup> Supporting this improvement was a 20.0% reduction in the amount of time vessels spent loading, which fell to an average of 3.6 days from 4.5 days.

All ports reported significant decreases in the 2011-12 crop year. The most substantive of these was posted by Churchill, where the average fell by 45.3%, to 5.2 days from 9.5 days a year earlier. Vancouver reported the second largest reduction, with its average falling by 34.5%, to 9.5 days from 14.5 days. Thunder Bay trailed with a 21.7% decrease, which lowered its average to 1.8 days from 2.3 days.<sup>53</sup> Prince Rupert reported the longest stays in port, with its average for the crop year falling by 20.3%, to 10.2 days from 12.8 days. [Table 5D-1]

### Distribution of Vessel Time in Port

Despite the decreased averages noted above, the proportion of ships spending more than five days in port actually increased, to 78.6% from 54.5% a year earlier. Even so, there was a significant reduction in the number of ships that remained in port for an uncommonly lengthy period of time, with the proportion of vessels spending 16 or more days in port falling to 9.6% from 24.2% a year earlier.

Much of this improvement reflected reductions at the west coast ports of Vancouver and Prince Rupert, which saw the number of vessels delayed

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

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

Figure 61: Average Vessel Waiting and Loading Times

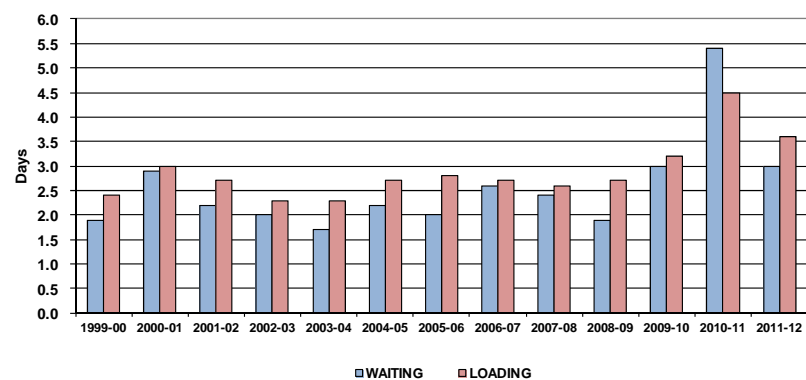
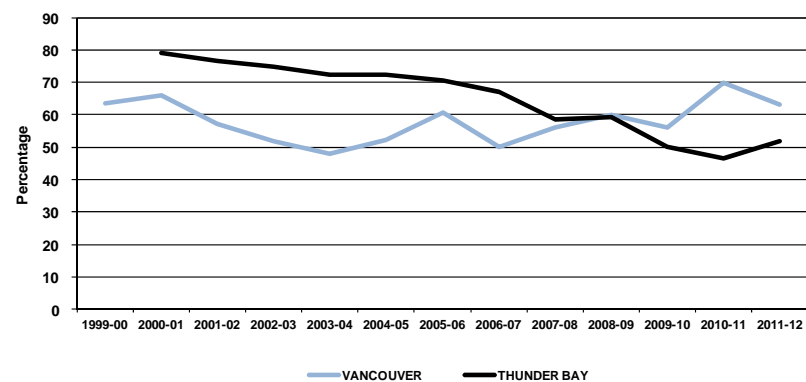


Figure 62: Multiple Berthing Vessels





for 16 or more days cut by more than half. For the most part, the drop in relative frequency reflected the improved fluidity with which grain was moved throughout the GHTS in the 2011-12 crop year, especially in the Vancouver corridor. [Table 5D-2]

### Distribution of Berths per Vessel

There were some noteworthy shifts in the number of vessels needing to berth at more than one terminal during the 2011-12 crop year. At Vancouver, the proportion of vessels needing to berth two or more times decreased to 63.1% from 69.8% a year earlier. This proved marginally below the benchmarked base-year value of 63.4%. Once again, this was due in large part to the improvement in railway fluidity, which facilitated the movement of grain into export position, and permitted more vessels to take on their full loads in one berthing. In comparison, the proportion of vessels needing more than one berthing at Thunder Bay actually rose to 52.0% from 46.4% a year earlier. Even so, these values remained well below the 79.2% benchmarked in the first year of the GMP. [Table 5D-3]

### Demurrage and Dispatch

Members of the WGEA and the CWB reported total vessel demurrage costs and dispatch earnings to the Monitor.<sup>54</sup> This is intended to provide some indication of the effectiveness with which grain flowed through western Canadian ports. For just the third time since the beginning of the GMP, these two elements combined to produce a negative value and a loss of \$5.9 million versus a loss of \$40.6 million a year earlier.

This improvement was primarily shaped by a reduction in demurrage costs, which fell to \$14.9 million from \$50.1 million the year previous. The most significant monetary contribution in this was an 87.3% decrease in the demurrage costs incurred at Churchill, Thunder Bay and points

<sup>54</sup> Note should be made of the fact that data relating to vessel demurrage and dispatch is both un-audited and aggregated. In addition, they pertain to shipments made during the crop year and, as such, may vary from the figures presented in the financial statements of the organizations that provided the data.

along the St. Lawrence Seaway, which fell to \$2.7 million from \$20.9 million a year earlier. This was complemented by a 57.9% decrease in the demurrage costs incurred along the Pacific Seaboard, which fell to \$12.3 million from \$29.1 million. On the whole, these decreases point to a substantive reduction in the problems arising from vessel delays a year earlier.

Detracting marginally from these cost reductions was a 4.6% decrease in dispatch earnings, which fell to \$9.0 million from \$9.4 million the year before. Much of the reduction could be traced to a 14.4% decrease in the dispatch earned along the Pacific Seaboard, which fell to \$5.4 million from \$6.3 million. A 14.7% increase for Churchill, Thunder Bay and the St. Lawrence Seaway saw its dispatch earnings rise to \$3.6 million from \$3.2 million a year earlier. [Table 5D-4]

### Stock-to-Vessel-Requirements Ratio

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

While a majority of the grains held in inventory at the port of Vancouver showed increases in their average weekly stock-to-vessel-requirement ratio, these were largely confined to the non-CWB grains. These gains ranged from a low of 74.0% for peas, to more substantive increases of 141.9% and 145.5% for canola and oats respectively. With the exception of oats, these ratios all stood comfortably above the 1.0 threshold. Changes among the CWB grains were decidedly more negative, with the ratios for wheat falling by 21.2%, to 1.9 from 2.4, while that of barley declined by 6.1%, to 4.1 from 4.3. Only durum posted an increase, with its ratio rising by 27.6%, to 4.8 from 3.8.

The ratios for Thunder Bay also moved generally lower while remaining above the 1.0 threshold. Across-the-board reductions were posted by the CWB grains, with the steepest being associated with barley, which saw its ratio collapse to zero from 9.1 a year earlier. This was followed by a 24.1% decrease in the ratio for wheat, which fell to an average of 3.6 from 4.7. Durum’s reduction proved more modest, with its ratio falling by 8.4%, to 2.6 from 2.8. Decreases were also noted for the majority of non-CWB grains, with the ratios posted by flaxseed falling by 21.4%, to 1.7 from 2.2, and canola by 26.9%, to 3.4 from 4.6. Only oats saw an increase, with its ratio rising by 227.6%, to 22.4 from 6.8. [Table 5D-5]

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

### Stock-to-Shipment Ratio

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

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

The average stock-to-shipment ratio for CWB grains at Vancouver decreased by 7.5% in the 2011-12 crop year, falling to 3.5 from 3.7 a year earlier. Opposing this was an 80.3% increase in the ratio for non-CWB

Figure 63: Stock-to-Vessel Requirements Ratio

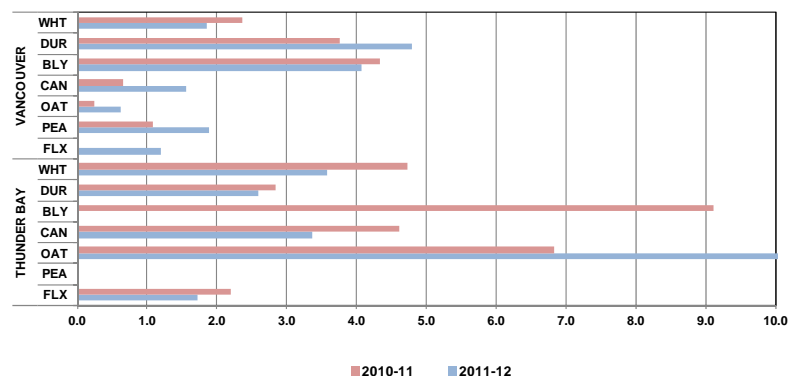
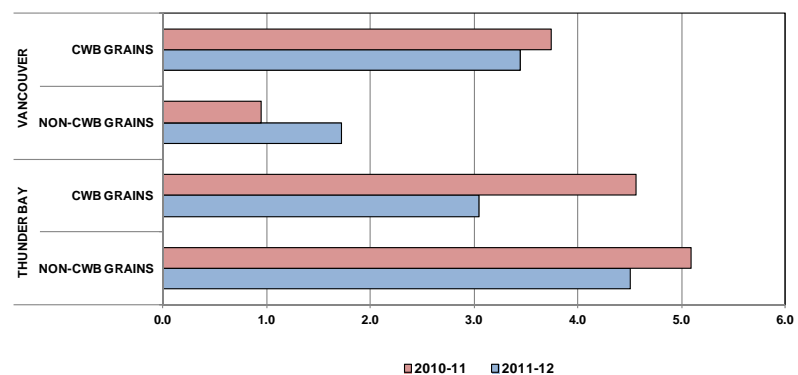


Figure 64: Stock-to-Shipment Ratio



grains, which rose to 1.7 from 1.0. At Thunder Bay, both ratios moved lower, with the average ratio for CWB grains decreasing by 33.0%, to 3.1 from 4.6, while the average for non-CWB grains fell by a lesser 11.3%, to 4.5 from 5.1. For the most part, these average values indicate that sufficient stocks were generally on hand to meet the prevailing short-term demand. However, the data also indicates that intermittent shortages were experienced. [Table 5D-7]

### Terminal Revenues and CWB Carrying Costs

The GMP includes a provision for an annual reporting of terminal elevator revenues and CWB inventory carrying costs at terminal elevators. The WGEA and its members developed a method of reporting total terminal revenues using a number of key financial measures, and provided data for their terminals at Thunder Bay and Vancouver. The CWB provided a breakdown of their terminal costs using an aggregate for Pacific Seaboard terminals, in addition to that of Thunder Bay.<sup>55</sup> [Table 5D-8]

Total reported terminal revenues for the 2011-12 crop year increased by 10.2%, rising to \$458.6 million from \$416.2 million a year earlier. This result was shaped by two inputs: an 8.9% gain at Vancouver, which saw revenues climb to \$375.3 million from \$344.7 million; and a 16.5% increase at Thunder Bay, where terminal revenues rose to \$83.3 million from \$71.5 million.

The CWB's carrying costs increased by 22.0% in the 2011-12 crop year, rising to \$178.8 million from \$146.6 million a year earlier. Increases were reported for the Pacific Seaboard as well as Thunder Bay. In the case of the former, this amounted to 12.4%, with carrying costs rising to \$128.6 million from \$114.4 million the year previous. There was a

<sup>55</sup> It should be noted that, owing to the differences in accounting practices, it is difficult to make direct comparisons between total terminal revenues and CWB costs. In addition, the terminal revenue and cost data presented here are un-audited.

significantly larger gain in the CWB's carrying costs at Thunder Bay, which rose by 56.0%, to \$50.2 million from \$32.2 million a year earlier.

### SYSTEM PERFORMANCE

The supply chain model provides a useful framework by which to examine the speed with which grain moves through the GHTS. For the 2010-11 crop year, it was observed that this process required an average of 52.3 days; one of the lower annualized values observed under the GMP. Reductions in the supply chain's principal components – time in storage at a country elevator, time in transit as a railway shipment, and time in inventory at a terminal elevator – were all instrumental in shaping this 15.8-day improvement over the base-year average of 68.1 days.

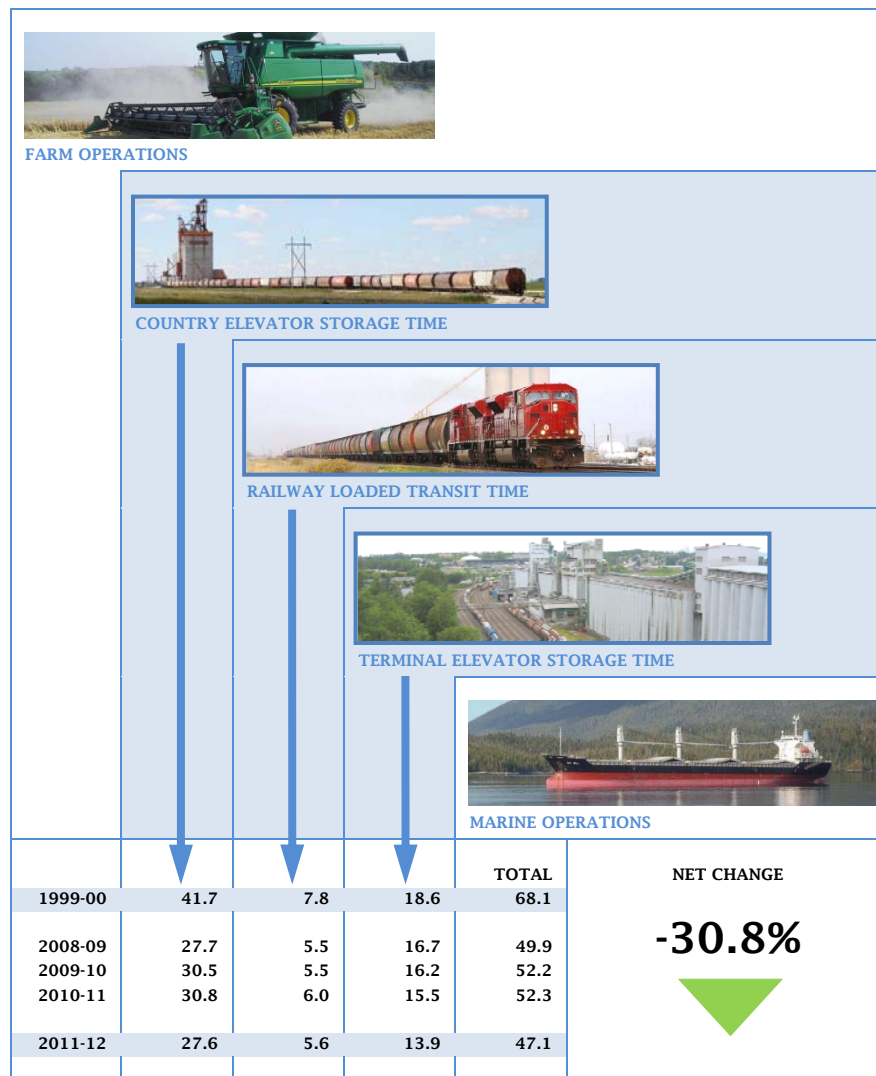
This average fell to 47.1 days in the 2011-12 crop year. The result was largely shaped by a reduction in the amount of time spent by grain in storage in the country elevator system, which decreased by an average of 3.2 days. A further 0.4 days was derived from a reduction in the railways' loaded transit time. Adding to these gains was a 1.6-day decrease in the amount of time grain spent in inventory at a terminal elevator. [Table 5E-1]

These forces served to reduce the overall average to the lowest yet observed under the GMP. The following outlines a few of the factors that helped shape this result:

- Firstly, a modest increase in the grain supply raised the amount of grain available for movement in the 2011-12 crop year by 1.5%, to 62.2 million tonnes from 61.3 million tonnes a year earlier. Although this suggested a sustaining of the pressures that had been brought to bear on the GHTS, total railway grain shipments actually rose by 4.5%, reaching a GMP record of 29.3 million tonnes. As such, the demands placed on the system proved to be the greatest experienced thus far.

- Secondly, by the beginning of the crop year the operational problems that had confronted CP and undermined its service offering throughout much of the previous crop year had effectively been overcome. As a result, grain moved to export position much more effectively and efficiently than it did a year earlier. Further, grain shippers reported comparatively few problems with the service they were receiving from the railways in the country, despite what proved to be a record handling for the elevator system. Even more important was the fluidity with which grain was moving through the ports. With better inbound supplies, the terminal elevator system, which was also bearing the pressures of a record throughput, was better able to provide for the timelier loading of awaiting ships.
- Finally, and as demonstrated during other highly productive periods in the GMP's history, the GHTS's performance in the 2011-12 crop year revealed once again how effective the system can be when all of its elements are working in close harmony. Still, experience has shown that the supply chain's very complexity renders it highly vulnerable to the effects of a failure in one or more components, be it with respect to the timely gathering of grain in the country, its movement to port by rail, or its loading onto ships. While the grain industry expressed great pleasure with the system's performance in the 2011-12 crop year, it remained acutely aware that uncontrollable future events could easily undermine this.

Figure 65: Days Spent Moving Through the GHTS Supply Chain





## Section 6: Producer Impact

Indicator Description	Table	2011-12								YTD	% VAR
		1999-00	2009-10	2010-11	Q1	Q2	Q3	Q4			
<b>Export Basis</b>											
1CWRS Wheat (\$ per tonne)	6A-10A	\$54.58	\$65.86	\$73.35						\$74.75	1.9%
1CWA Durum (\$ per tonne)	6A-10B	\$67.63	\$79.52	\$89.36						\$97.24	8.8%
1 Canada Canola (\$ per tonne)	6A-10C	\$52.51	\$49.73	\$53.14						\$54.16	1.9%
Canadian Large Yellow Peas - No. 2 or Better (\$ per tonne)	6A-10D	\$54.76	\$78.32	\$84.86						\$92.64	9.2%
<b>Producer Cars</b>											
Producer-Car-Loading Sites (number) - Class 1 Carriers		415	268	250	233	233	234	234	234	234	-6.4%
Producer-Car-Loading Sites (number) - Class 2 and 3 Carriers		122	110	115	132	132	132	132	132	132	14.8%
Producer-Car-Loading Sites (number) - All Carriers		537	378	365	365	365	366	366	366	366	0.3%
Producer-Car Shipments (number) - Covered Hopper Cars	6B-2	3,441	12,198	13,041	1,798	4,148	4,439	3,956	14,341	14,341	10.0%

## CALCULATION OF THE EXPORT BASIS

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

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

The only practical means by which to manage this undertaking rests in standardizing the estimates around a representative sample of grains, and grain stations. As a result, the GMP consciously limits its estimations to four specific grains: wheat; durum; canola; and peas.<sup>56</sup> Sampling techniques were used to select 43 separate grain stations as a representative sample in the calculation of the export basis and producer netback. These grain stations are grouped into nine geographic areas, comprised of four to six grain stations each, namely: Manitoba East; Manitoba West; Saskatchewan Northeast; Saskatchewan Northwest; Saskatchewan Southeast; Saskatchewan Southwest; Alberta North; Alberta South; and Peace River.

<sup>56</sup> In addition to the grains themselves, the GMP also specified the grades to be used, namely: 1 CWRS Wheat; 1 CWA Durum; 1 Canada Canola; and Canadian Large Yellow Peas (No. 2 or Better).

## Components of the Calculation

It is important to remember that every individual producer's cost structure differs. As a result, no general calculation can be expected to precisely depict the export basis and netback that is specific to each farmer. The methodology employed here is intended to typify the general case within each of the nine geographic areas identified.<sup>57</sup> Caution, therefore, must be exercised in any comparison between the general values presented, and those arising to individual producers within each of these areas.

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

<sup>57</sup> Owing to competitive pressures, many of the stakeholders in the GHTS use some form of financial incentive to draw grain volumes into their facilities (i.e., country elevators) or over their systems (i.e., railways). Many of these incentives are of a highly sensitive commercial nature. In order to safeguard all such information, estimates of the export basis and producer netback are calculated at a higher-than-grain-station level of aggregation.

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



ELEMENT	CWB GRAINS	NON-CWB COMMODITIES
<b>Canola Growers and Pulse Associations</b>		All elevator deliveries of canola in Saskatchewan are subject to a \$0.75 per tonne "check-off" for provincial canola association dues. The applicable "check-off" on deliveries made in Manitoba and Alberta are somewhat higher, amounting to \$1.00 per tonne in both provinces. Similarly, a levy of 0.5% is deducted for the Manitoba Pulse Growers Association on the delivery of yellow peas, while 1.0% is deducted for the Pulse Growers Associations in Saskatchewan and Alberta.
<b>Trucking Premiums</b>	Grain companies report on the trucking premiums they pay to producers at each of the facilities identified in the sampling methodology. <sup>5</sup> The amounts depicted reflects the average per-tonne value of all premiums paid for the designated grade of wheat or durum within the reporting area.	Grain companies use their basis (the spread between their cash and the nearby futures price) as the mechanism to attract producer deliveries. Narrowing their basis, resulting in higher return to producers, is the signal that a company needs a commodity. Conversely a wide basis signals a lack of demand for the product. Some companies, however, offer premiums over and above their basis in order to attract delivery of some non-Board commodities. These premiums are presented as a producer benefit when factored into the export basis. Owing to the limited use of this mechanism, they assume relatively small values when weighted by the applicable tonnage at a regional level.
<b>CWB Transportation Savings</b>	The CWB Transportation Savings is an apportioned per-tonne amount representing the total financial returns to the pool accounts as a result of grain-company tendering, freight and terminal rebates, and any penalties for non-performance.	
<b>Other Deductions</b>	Other deductions, such as drying charges, GST on services, etc., may also be applied to, and appear as an itemized entry on the cash ticket of, any grain delivery. No attempt is made to capture these deductions within the framework employed here.	Other deductions, such as drying charges, GST on services, etc., may also be applied to, and appear as an itemized entry on the cash ticket of, any grain delivery. No attempt is made to capture these deductions within the framework employed here.
<p>1) - ICE Futures Canada (formerly the Winnipeg Commodity Exchange) collects Vancouver cash prices and spot prices at selected country elevator locations daily.</p> <p>2) - Data provided by Stat Publishing. Using a "snapshot" period of two months during the fall, when pricing of the new crop is relatively heavy, was deemed to be an appropriate representation of producer prices, thereby avoiding the need to incorporate a weighting factor.</p> <p>3) - Freight Adjustment Factors (FAF) were introduced in the 1995-96 crop year to account for a change in the eastern pooling basis point, from Thunder Bay to the Lower St. Lawrence, and for the location advantage of accorded shipments from delivery points near Churchill and markets in the United States. FAFs are established prior to the beginning of each crop year to reflect changes in sales opportunities, cropping patterns and Seaway freight rates.</p> <p>4) - The costs published in the CWB's Annual Report are net of any transportation savings. Since the 2002-03 crop year, the CWB's Annual Reports has published its receipts at "contract prices." In order to provide a consistent time series, the CWB provides the Monitor with an adjusted reporting to reflect receipts and costs at "in-store" Vancouver or St. Lawrence.</p> <p>5) - Various terms are used by grain companies to describe the premiums they offer to producers in an effort to attract deliveries to their facilities - i.e., trucking premiums, marketing premiums, and location premiums. The most common term, however, remains "trucking premium," and it is utilized generically in the calculation of the Export Basis.</p>		

## CWB COMMODITIES

All of the data assembled since the beginning of the GMP has repeatedly shown that the producer's financial returns are heavily influenced by the prevailing price of grain. And while the export basis has also risen over this same thirteen year time horizon, its impact on the producer's return has not approached that of price, be it with respect to 1CWRS Wheat or 1CWA Durum.

### 1CWRS Wheat

Between the 1999-2000 and 2011-12 crop years, producers witnessed an 87.4% increase in their netback for 1CWRS wheat, which rose to an average of \$268.43 per tonne from its benchmarked \$143.25-per-tonne value. Although the trend was upwards, the farmer's return varied widely in the face of dramatic price swings, especially in the latter half of the GMP. These price swings resulted in returns that extended from a low of \$141.17 per tonne in the 2005-06 crop year to a high of \$314.29 per tonne in the 2007-08 crop year. [Table 6A-10A]

### Final Realized Price

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

But record global wheat production along with increased international competition resulted in significant downward pressure being placed on

Figure 66: Producer Netback - 1CWRS Wheat

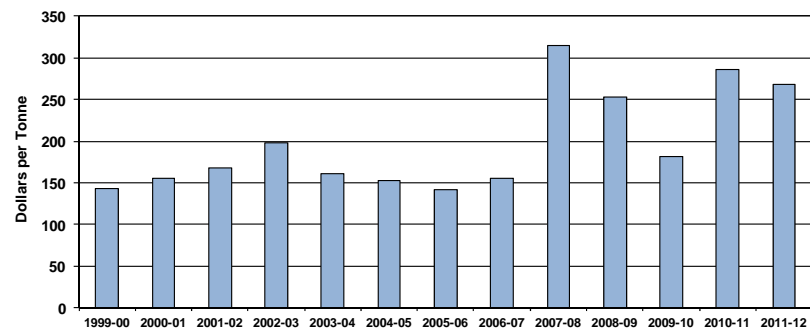
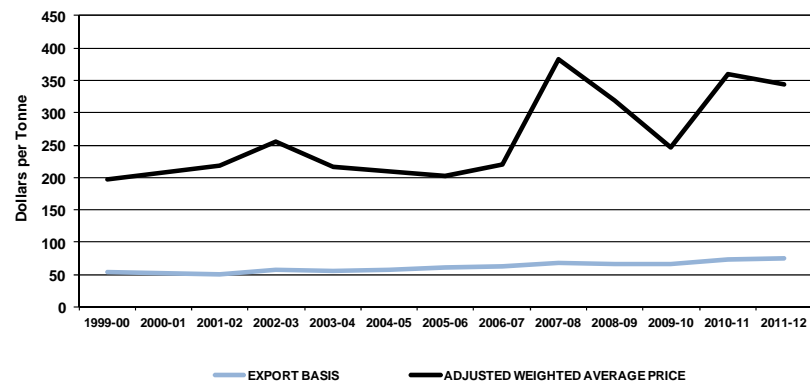


Figure 67: Change in Netback Components - 1 CWRS Wheat



wheat prices in the 2008-09 crop year. Moreover, the instability occasioned by the global financial crisis served only to compound these pressures. Over the course of the next two crop years, the Final Price for 1CWRS wheat had moved steadily lower, ultimately falling to \$236.80 per tonne with the close of the 2009-10 crop year. However, this was quickly reversed in the 2010-11 crop year when the expectation of tighter global wheat supplies in the face of a severe drought in Russia and other Black-Sea exporters bolstered prices dramatically. Still, the rally proved short lived as an improvement in production levels soon began to exert downward pressure on wheat prices. As a result, the Final Price of 1 CWRS wheat fell by 5.5% in the 2011-12 crop year, to \$326.04 per tonne from \$344.96 per tonne a year earlier. Even so, this represented a 69.4% gain over the base-year's benchmark value of \$192.43 per tonne.

### Export Basis

Set against the backdrop of rising prices was an increase in the export basis for 1 CWRS wheat itself, although its climb proved less erratic. To be sure, the export basis actually declined in the early years of the GMP, falling to a low of \$50.88 per tonne in the 2001-02 crop year. But it subsequently began to increase, attaining a height of \$67.65 per tonne in the 2007-08 crop year. This was followed by modest reductions in each of the next two crop years, with the export basis cut back to \$65.86 per tonne at the close of the 2009-10 crop year. This downward drift came to an end in the 2010-11 crop year when the export basis spiked to a GMP record of \$73.35 per tonne. The 2011-12 crop year saw a further 1.9% added to this, lifting the export basis to \$74.75 per tonne and yet another record high under the GMP. This constituted a net rise of 37.0% over the \$54.58-per-tonne value benchmarked thirteen years earlier.

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

Figure 68: Direct Costs - 1CWRS Wheat

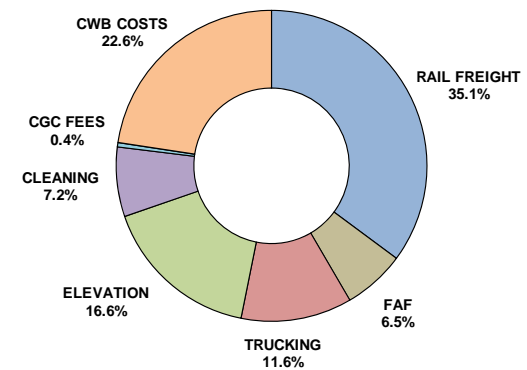
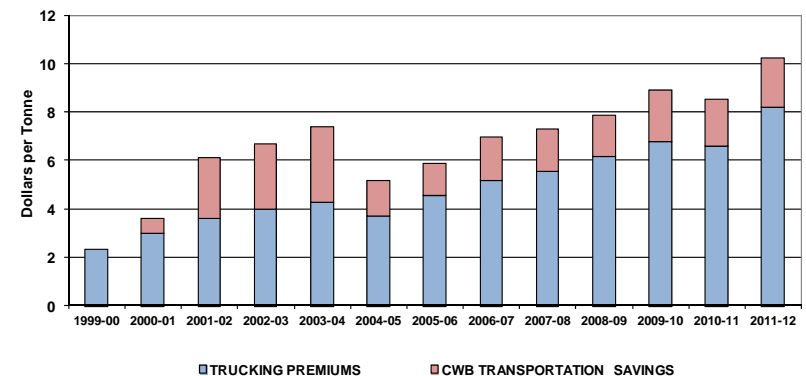


Figure 69: Financial Benefits - 1CWRS Wheat



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

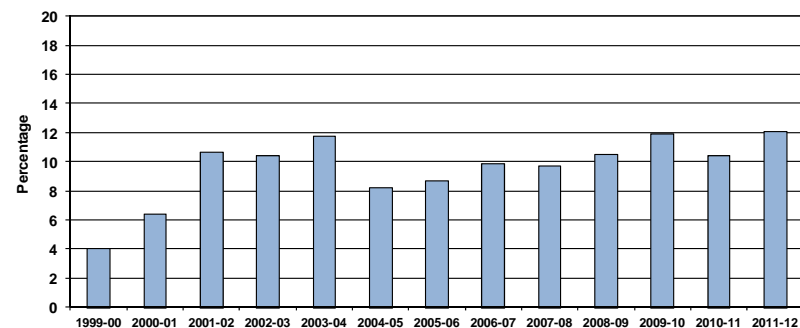
### Direct Costs

Over the last thirteen crop years, the direct-cost component of the export basis has increased 49.4%, rising to an average of \$84.99 per tonne in the 2011-12 crop year from its base-year value of \$56.90 per tonne. The largest single element in these costs is the applicable freight, which incorporates not only a charge for the grain's movement by rail, but a CWB Freight Adjustment Factor (FAF) as well.<sup>58</sup> At the outset of the GMP, the weighted applicable freight on the movement of 1CWRS wheat in western Canada averaged \$31.87 per tonne, and accounted for 56.0% of the farmer's direct costs. And while freight expenditures have risen by 10.9% over the last thirteen years, to an average of \$35.35 in the 2011-12 crop year, its share of direct costs has declined to a much lower 41.6%.

This decline reflects the effects of comparatively greater increases in the other costs associated with handling 1CWRS wheat. To be sure, the cost of trucking, elevation and cleaning have all seen increases ranging anywhere from 45% to 75% over this same period. Even so, the CWB's gross costs saw the greatest rise, almost quadrupling, to an average \$19.21 per tonne from \$5.40 per tonne in the GMP's base year. Moreover, these outlays assumed a much larger share of direct costs; 22.6% in the 2011-12 crop year against 9.5% thirteen years earlier.

<sup>58</sup> Prior to the 2008-09 crop year, the Churchill Freight Advantage Rebate (CFAR) was incorporated into the calculation of the applicable freight. When the Churchill Storage Program superseded the CFAR, the data needed to reduce these payments to a per-tonne value was no longer available. As a result, this element is no longer factored into the calculation of the export basis.

Figure 70: Offset Value of Financial Benefits - 1CWRS Wheat



### Financial Benefits

The direct costs cited above are typically offset by two financial benefits that accrue to producers. These come in the form of any trucking premiums that may have been received directly from grain companies, as well as the transportation savings they indirectly received from the CWB.<sup>59</sup> In the case of trucking premiums, it has been a long-established practice of the grain companies' to use these as an instrument with which to draw grain into their facilities. To be sure, data gathered under the GMP suggests that these premiums have largely risen as a result of the increased competition between grain companies.

<sup>59</sup> There are a number of other enticements that a grain company can use in getting farmers to deliver their grain to its elevators - what the grain company refers to as its toolbox. In addition to trucking premiums, grade promotions, discounts on farm supplies, favourable credit terms, or even the absorption of trucking costs are also employed. The GMP does not attempt to evaluate these other benefits.

For the most part, the premiums paid by the grain companies for the delivery of 1CWRS wheat in each of the nine sampling areas have almost quadrupled over the course of the last thirteen crop years, increasing to an average of \$8.17 per tonne in the 2011-12 crop year from \$2.32 per tonne in the 1999-2000 crop year. As a result, these premiums have come to offset a larger portion of the producer's direct costs: 9.6% in the 2011-12 crop year versus 4.1% in the 1999-2000 crop year.

Complementing this has been the CWB's transportation savings, which initially averaged \$0.61 per tonne in the 2000-01 crop year. Gauged against the direct costs tied to 1CWRS wheat at that time, this constituted a further 1.1% in offset value. Although these savings reached as much as \$3.14 per tonne in the 2003-04 crop year, they have since diminished. In the 2011-12 crop year they equated to \$2.07 per tonne, and provided a 2.4% offset to direct costs.

In combination, the financial benefit accruing to producers from these two sources averaged \$10.24 per tonne in the 2011-12 crop year, more than four times the \$2.32 per tonne recorded in the first year of the GMP. What is more, the offsetting value of these financial benefits has increased to 12.0% of the producer's direct costs, almost three times more than the 4.1% they provided thirteen years earlier.

### 1CWA Durum

As was the case for 1CWRS wheat, farmers have financially benefited from an improvement in the netback for their delivery of 1CWA durum. These returns, however, have also been heavily influenced by the fluctuations in the market price of durum. This was particularly evident in the 2007-08 crop year when the producer's netback spiked to a GMP record of \$458.04 per tonne as a result of rising prices. However, an ensuing decline in prices brought a substantive contraction in these returns over the course of the next two crop years. By the close of the 2009-10 crop year the producer's netback had fallen to \$153.59 per tonne, marginally below the \$160.48 per tonne that had been benchmarked at the beginning of the GMP. Even so, a rebound in prices

Figure 71: Producer Netback - 1CWA Durum

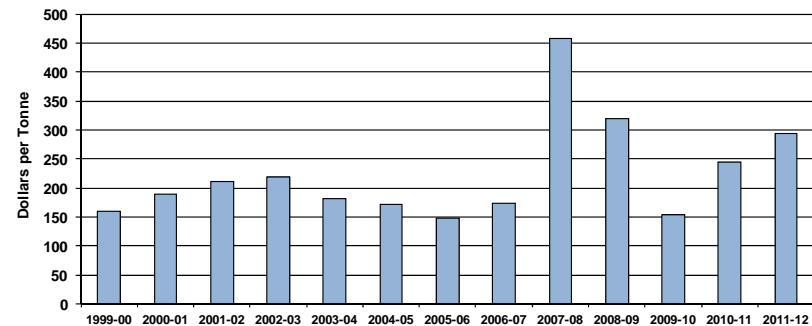
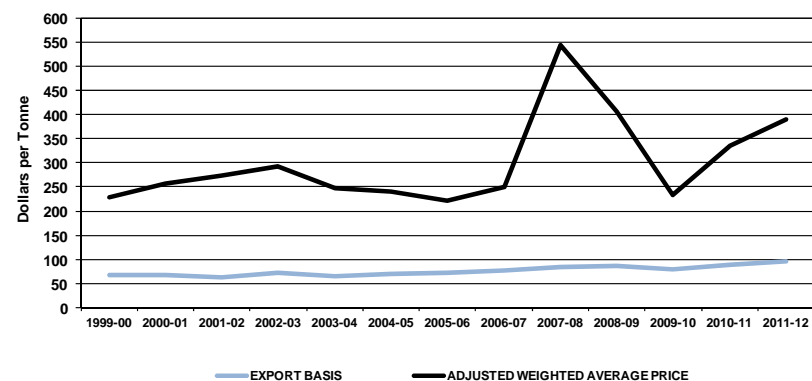


Figure 72: Change in Netback Components - 1CWA Durum



led to a regaining of some of this lost ground in the 2010-11 and 2011-12 crop years, with the producer's netback ultimately rising to \$293.43 per tonne; the third highest value recorded under the GMP. [Table 6A-10B]

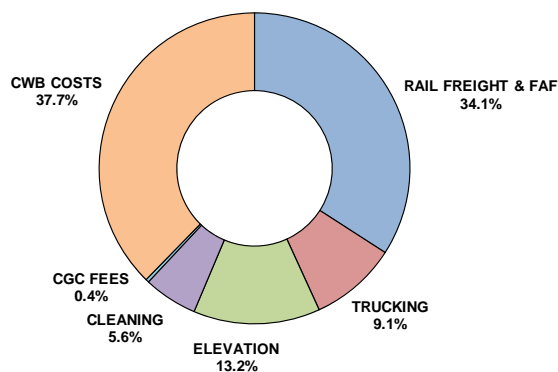
### Final Realized Price

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

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

In the face of reduced global production and a lower-quality North American crop, durum prices rebounded appreciably in the 2010-11 crop year. And while the prevailing market price began to drift lower over the course of the next few months, the Final Price of 1CWA durum in the 2011-12 crop year still rose 15.2%, to \$351.89 per tonne from the \$305.58-per-tonne average witnessed a year earlier. Although this stood well below the record price set four years earlier, it still marked a 70.2% gain over the base-year value of \$206.79 per tonne.

Figure 73: Direct Costs - 1CWA Durum



### Export Basis

As previously outlined with respect to 1CWRS wheat, the export basis for 1CWA durum has also risen over the course of the GMP. With the close of the 2011-12 crop year, the export basis on 1CWA durum had risen by a factor of 43.8%, to \$97.24 per tonne as compared to \$67.63 per tonne in the GMP's base year. This is consistent with the aforementioned 37.0% increase in the export basis of 1CWRS wheat.

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

## Direct Costs

Over the course of the last thirteen years, the direct costs tied to 1CWA durum have increased by 53.2%, rising to \$108.39 per tonne from \$70.77 per tonne in the GMP's base year. This proved to be only marginally greater than the 49.4% increase cited for 1CWRS wheat. This difference arises from contrasting cost structures, with consistently higher gross CWB costs for durum accounting for much of this.

As with wheat, rail freight has traditionally constituted the largest cost element in the direct costs associated with 1CWA durum. At least until the 2011-12 crop year, when CWB gross costs surpassed those of rail freight to reach a GMP record of \$40.85 per tonne. This marked a 91.6% gain over the \$21.32-per-tonne average reported thirteen years earlier, and endowed it with a 37.7% share of direct costs against a benchmarked 30.1% in the base year. In the face of this shift, the share attributable to weighted average freight fell to 34.1% from the 42.5% it had assumed in the first year of the GMP. Despite this, the weighted average freight applicable on the movement of durum in the 2011-12 crop year had increased to \$36.97 per tonne, a gain of 22.9% over the \$30.07 per tonne reported thirteen years earlier.<sup>60</sup>

The cost of trucking, elevation and cleaning all increased during this same period, with individual rate escalations ranging from about 65% to 70%. Although the combined cost of these services rose to \$30.19 per tonne in the 2011-12 crop year from \$19.38 per tonne in the base year, their share of direct costs only rose marginally, to 27.9% from 27.4% in the 1999-2000 crop year.

<sup>60</sup> Although the weighted applicable freight for 1CWA durum includes a FAF component, this latter element represents only a small portion of the total; just 1.4% in the 1999-2000 crop year. Moreover, the average FAF for 1CWA durum decreased steadily in the early years of the GMP, falling from \$0.41 per tonne in the 1999-2000 crop year, to become a credit of \$0.03 in the 2005-06 crop year. When treated as a credit, the FAF actually reduces the freight paid by producers.

Figure 74: Financial Benefits - 1CWA Durum

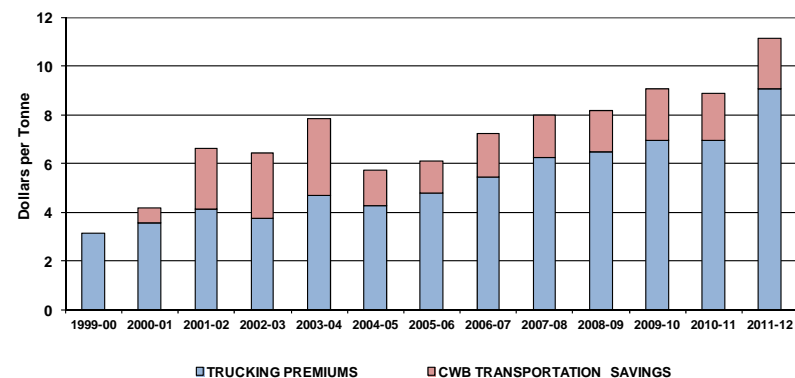
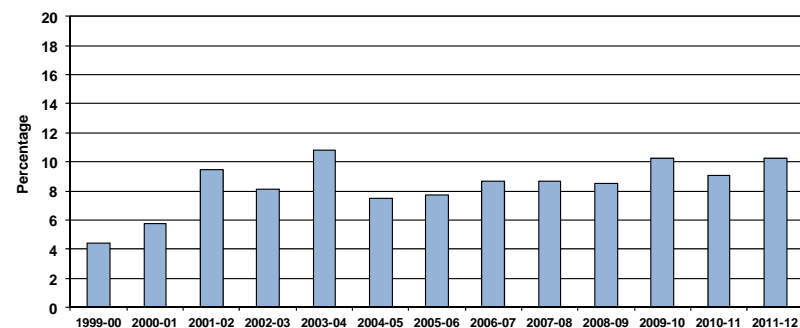


Figure 75: Offset Value of Financial Benefits - 1CWA Durum



## Financial Benefits

As with wheat, the trucking premiums paid by grain companies for 1CWA durum deliveries have moved steadily higher over the course of the past thirteen years, to an average of \$9.08 per tonne from \$3.14 per tonne. In the 2011-12 crop year this served to offset 8.4% of the direct costs incurred by farmers in exporting their grain, proving somewhat less than twice the 4.4% that was shielded in the first year of the GMP. The CWB's transportation savings are also applicable in the movement of 1CWA durum, and are in fact identical to those already presented for 1CWRS wheat. At \$2.07 per tonne, this provided an offset value of 1.9% to the farmer's direct costs.

When examined on a combined basis, these producer benefits have more than tripled over the course of the GMP, climbing to \$11.15 per tonne from \$3.14 per tonne in the base year. By extension, they also offset a larger proportion of the farmer's direct costs, 10.3% against 4.4% in the 1999-2000 crop year.

## NON-CWB COMMODITIES

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

### 1 Canada Canola

The visible netback to producers from the delivery of 1 Canada canola has fluctuated rather significantly over the course of the GMP. Once again, much of this was due to dramatic swings in market prices. These forces propelled the farmer's return from a base-year value of \$239.10 per tonne to as much as \$503.29 per tonne in the 2007-08 crop year. But a decline in canola prices over the next two years undercut these gains,

Figure 76: Producer Netback - 1 Canada Canola

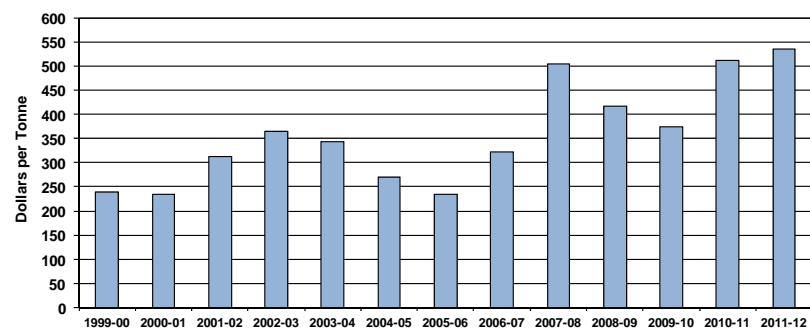
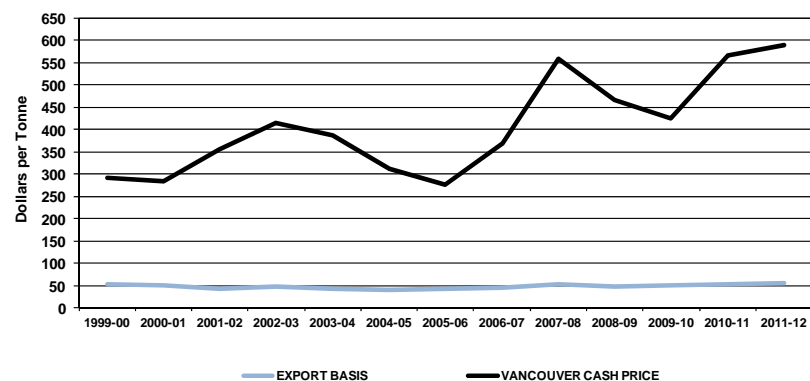


Figure 77: Change in Netback Components - 1 Canada Canola





reducing the farmer's netback to \$374.46 per tonne in the 2009-10 crop year. However, owing to a subsequent resurgence in canola prices, the producer's netback reached beyond its previous highs in each of the next two crop years, setting a new GMP record of \$535.05 per tonne in the 2011-12 crop year.

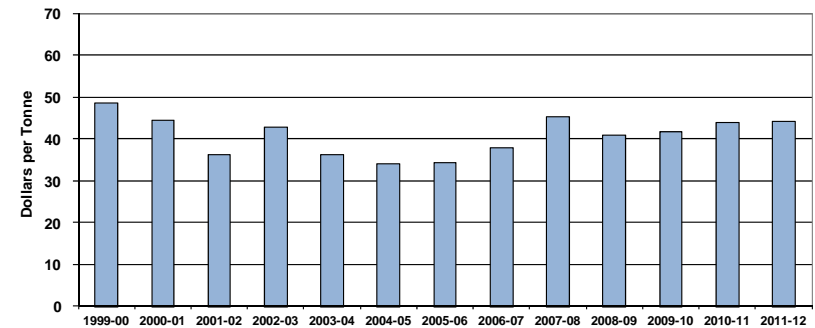
### Vancouver Cash Price

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

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

However, the price of canola rallied over \$140 per tonne in the 2010-11 crop year, fuelled in large measure by a growing export demand as well as that occasioned by the advent of new crushing capacity in western Canada. Strong domestic and foreign demand did much to raise prices still further in the 2011-12 crop year, with the average Vancouver cash price reaching a new GMP record of \$589.21 per tonne.

Figure 78: Price Differential - 1 Canada Canola



### Export Basis

Over the course of the last thirteen years, the export basis for 1 Canada canola has increased by just 3.1%, rising to an average of \$54.16 in the 2011-12 crop year from \$52.51 per tonne in the GMP's base year. However, this net change tends to obscure some of the fluctuations that have occurred during this same period. To be sure, the export basis for canola stood marginally below its base-year value for much of this timeframe. In fact, the 1.9% increase witnessed in the 2011-12 crop year served to maintain the export basis above this benchmark level for a second consecutive year.

The export basis for non-CWB commodities have the same basic structural components as do CWB grains: the direct costs incurred in delivering grain to market; and any financial benefits that serve to offset them. However, over 80% of the direct costs cannot be examined directly. Instead, a price differential - or spread - between the Vancouver cash price and the producers' realized price at the elevator or

processing plant is calculated. This differential effectively includes the cost of freight, handling, cleaning, storage, weighing and inspection, as well as an opportunity cost or risk premium.

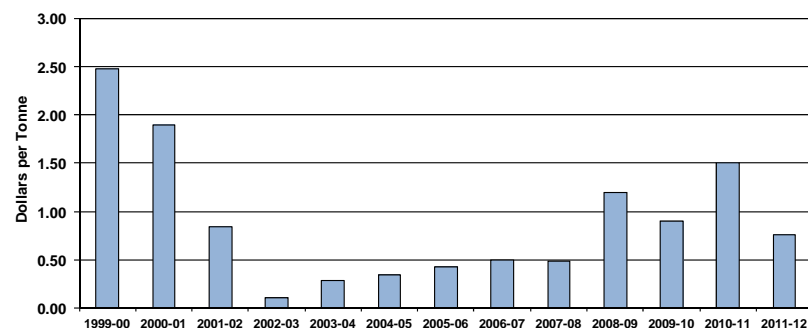
### Direct Costs

In contrast to the patterns observed for wheat and durum, the direct costs tied to 1 Canada canola have moved generally lower since the 1999-2000 crop year, ultimately reaching a low of \$41.31 per tonne in the 2004-05 crop year before then beginning to rise. And while more recent gains have served to narrow this margin substantially, total direct costs in the 2011-12 crop year still stood 0.1% below that recorded in the first year of the GMP, with an average of \$54.92 per tonne versus \$54.99 per tonne respectively.

Much of the force behind this reduction stems from a reduction in the price differential. What is more, a lower value is indicative of strong demand, since a narrowing of the price differential effectively signals that buyers are willing to share a greater proportion of the Vancouver cash price with the producer in order to acquire sufficient supplies. At the close of the 2011-12 crop year, the price differential stood 9.0% below what had been recorded at the beginning of the GMP, having narrowed to an average of \$44.18 per tonne from \$48.55 per tonne. This represented 80.4% of the direct costs, against a benchmark share of 88.3% in the base year.

The second largest component in canola's direct costs is that of trucking the commodity from the farm gate to an elevator or processor. As with CWB grains, these costs are estimated to have climbed by 65.3% in the last thirteen years, increasing to an average of \$9.82 per tonne from \$5.94 per tonne at the beginning of the GMP. Owing to a narrowing in the price differential, trucking accounted for a somewhat greater proportion of direct costs in the 2011-12 crop year, 17.9% versus 10.8% in the base year. The remaining direct costs, which accounted for just 1.7% of the overall total, were derived from a provincial check-off that is applied as a means of funding the Canola Growers Association.

Figure 79: Financial Benefits - 1 Canada Canola



### Financial Benefits

Unlike CWB grains, trucking premiums are not as aggressively used to entice delivery of non-CWB commodities. In fact, over the course of the last thirteen years, the average trucking premium paid on canola has fallen to \$0.76 per tonne from \$2.48 per tonne. Moreover, the value of these premiums as an offset to the direct costs has also declined, falling to just 1.4% from 4.5%. It is worth noting that these premiums have largely shrunk in conjunction with the narrowing of the price differential. This is consistent with the trade's preference to use the spread between the spot price and the futures price as the primary signalling mechanism to attract deliveries. Although prevailing market conditions can produce significant fluctuations in these premiums, its role remains very limited.

### Large Yellow Peas

The visible netback arising to producers of large yellow peas has proven to be the most volatile of the four commodities monitored under the

GMP. As with other commodities, this volatility was occasioned primarily by the rise and fall in market prices. But it has also been affected by pronounced shifts in the export basis. Over the course of the GMP's first twelve years, these forces whipsawed the producer's netback for large yellow peas, from a low of \$118.75 per tonne in the 2005-06 crop year to a high of \$256.31 per tonne in the 2007-08 crop year. As with other commodities, recent price gains have helped fuel an improvement in the producer's netback, including that of the 2011-12 crop year, where a 49.0% increase lifted the farmer's financial return to a new GMP record of \$318.28 per tonne from \$213.63 per tonne a year earlier. This better than doubled the \$147.78-per-tonne value benchmarked in the base year.

### Dealer's Closing Price

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

Strong international demand coupled with a decline in production saw prices rebound sharply over the next two years, with the dealer's closing price reaching a record-setting \$341.82 per tonne in the 2007-08 crop year. However, amid the backdrop of the ensuing global financial crisis, the market price of large yellow peas soon began to decline. Weaker demand in India, a traditionally price-sensitive market, contributed still further downward pressure on prices in the 2009-10 crop year, with the dealer's closing price falling to an average of \$261.72 per tonne.

But prices began to strengthen in the 2010-11 crop year, with the dealer's closing price rebounding to \$298.49 per tonne. Much of this reflected the effects of tightening supplies in the face of a sustained demand. Moreover, prices continued to move higher in the 2011-12 crop year as a result of a sharp decline in production, which constricted supplies even further. The effect was a 37.7% increase in the dealer's closing price,

Figure 80: Producer Netback – Large Yellow Peas

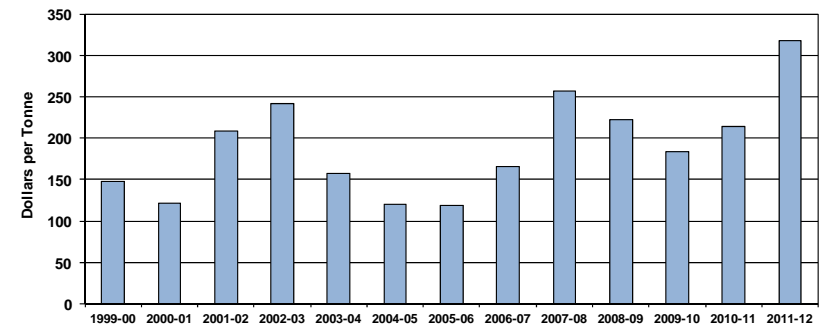
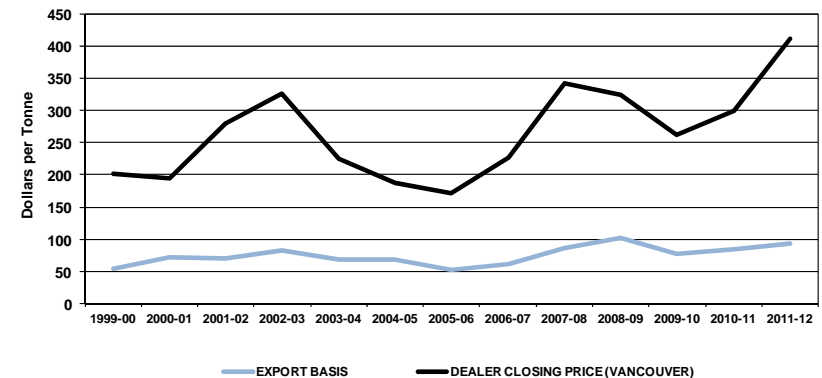


Figure 81: Producer Netback Component – Large Yellow Peas



which reached a GMP record of \$410.92 per tonne; slightly more than twice the \$202.54-per-tonne price that had been benchmarked in the base year.

### Export Basis

The export basis for large yellow peas rose fairly steadily in the first four years of the GMP, attaining a height of \$83.19 per tonne in the 2002-03 crop year against a benchmark value of \$54.76 per tonne in the base year. But it then began to fall, ultimately reaching a low of \$52.94 per tonne in the 2005-06 crop year. This undulating pattern began to repeat itself a year later when the export basis again started to rise. Moreover, the upward momentum continued through the 2008-09 crop year, with the export basis ultimately reaching a new GMP record of \$101.57 per tonne. Although the export basis fell to \$78.32 per tonne a year later, it was followed by additional back-to-back increases. With the close of the 2011-12 crop year, the export basis had again risen to \$92.64 per tonne, a gain of 9.2% over the previous crop year's \$84.86-per-tonne average as well as a 69.2% gain over the base-year value.

Owing to the structure of the export basis, changes in the direct costs attributable to large yellow peas are virtually indistinguishable from the larger measure to which it belongs. As with canola, neither can over 80% of the direct cost be examined directly. Instead, a price differential between the dealer's closing price and the grower's bid closing price is calculated as an approximation for the cost of freight as well as other handling, cleaning, and storage activities.

### Direct Costs

Over the course of the last thirteen years the direct costs associated with large yellow peas has risen by 69.1%, to \$92.88 per tonne in the 2011-12 crop year from \$54.94 in the base year. The majority of this increase was derived from a 65.4% increase in the price differential, which climbed to \$79.75 per tonne from \$48.23 per tonne over the same period. But this escalation was also characterized by significant fluctuations as a result of

Figure 82: Price Differential - Large Yellow Peas

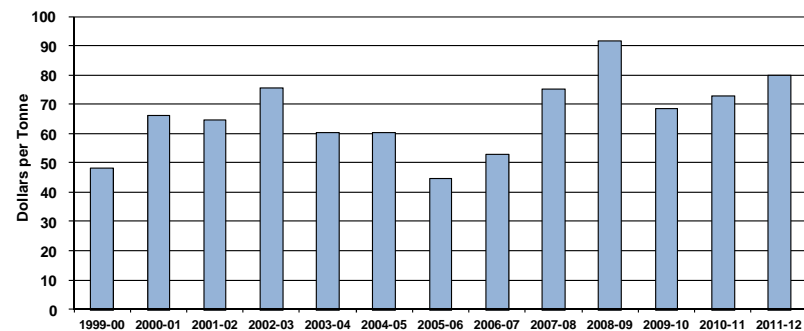
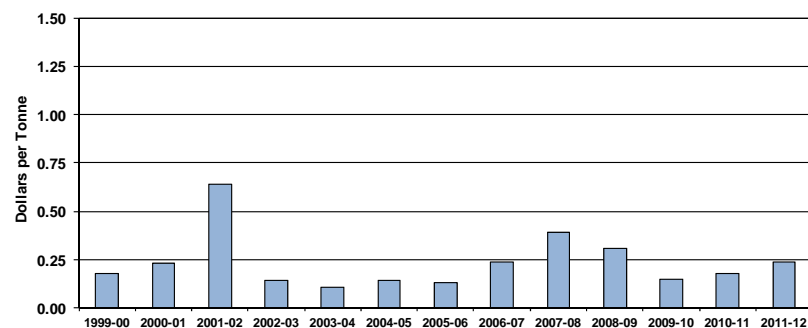


Figure 83: Financial Benefits - Large Yellow Peas



prevailing market conditions, taking values that ranged from as little as \$44.56 per tonne in the 2005-06 crop year to as much as \$91.46 per tonne in the 2008-09 crop year. These same forces were responsible for its subsequent pullback. Even so, these gyrations did very little to alter its relationship with direct costs, with the price differential falling only marginally, to 85.9% of these costs from 87.8% in the base year.

The second largest component in the direct costs of large yellow peas is trucking. As elsewhere, these costs are estimated using an average haul distance of 40 miles, and are deemed to have amounted to \$9.82 per tonne in the 2011-12 crop year. On a comparative basis, this element accounted for 10.6% of total direct costs against 10.8% at the outset of the GMP. The remaining 3.5% was derived from a levy assessed by the provincial Pulse Growers Association at the time of delivery, more than double the 1.4% it represented in the base year.

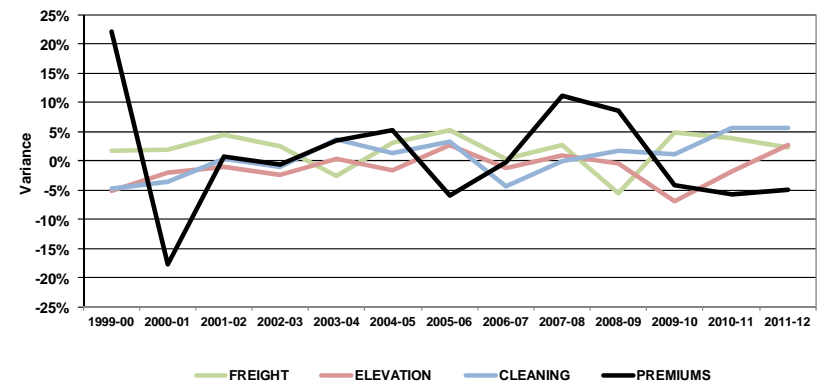
### Financial Benefits

Trucking premiums are even less commonly used to encourage the delivery of large yellow peas than they are for canola. From the outset of the GMP these premiums amounted to an average of just \$0.18 per tonne, and provided an offset value of just 0.3% to total direct costs. Although premium payments spiked periodically, reaching as much as \$0.64 per tonne in the 2001-02 crop year, its use remains largely limited. In the 2011-12 crop year, these premiums averaged \$0.24 per tonne, and shielded less than 0.3% of the producer's direct costs.

### CASH TICKET ANALYSIS

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

Figure 84: Cash Ticket Variances



examination.<sup>61</sup> In some instances, the grain companies provided larger samples.

The deductions on these cash tickets were then gauged against the averages developed for the export basis. The values obtained from this sampling yielded variances that all stood within 6% of the averages calculated by the Monitor for the movement of wheat in the 2011-12 crop year. These ranged from a low of 2.2% on rail freight, to a high of 5.7% on cleaning. Within this band were the sample variances for elevation and trucking premiums, which amounted to 2.6% and 4.9% respectively.

These variances were consistent with those observed a year earlier, although the variances for rail freight and trucking premiums narrowed while those associated with elevation and cleaning widened. Moreover,

<sup>61</sup> The sample of cash tickets used is based on three percent of the number of tickets actually issued, and does not necessarily correspond to three percent of volume delivered. The average freight charges presented in the data tables are, however, weighted by volume.

these variances stand easily within the mainstream of those observed since the beginning of the GMP.

Still, the focus of this analysis rests largely in gauging the accuracy of the trucking premiums reportedly paid by the grain companies. In this regard, although there has been a significant narrowing in the variability witnessed in the first years of the GMP, the variability in the premium data has remained generally greater than that of other cash ticket items.<sup>62</sup> And while data quality remains a factor in the calculation of these variances, the analysis provides reasonable corroboration for the premiums reported by the grain companies. In light of this, the Monitor is satisfied that the methodology used to determine both the export basis and the producer's netback provides a fair portrait of the financial returns arising to western Canadian producers.

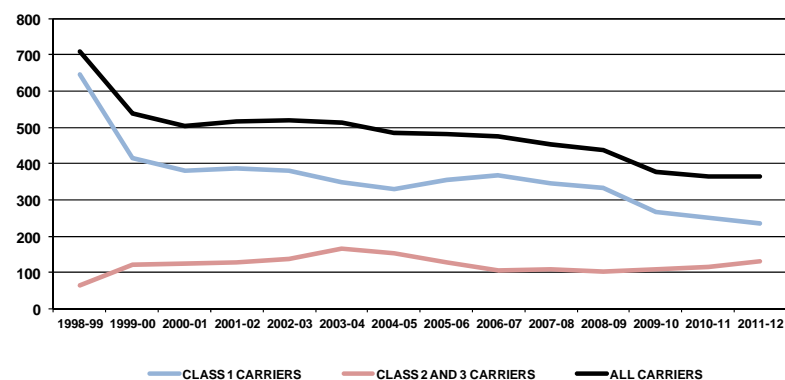
## PRODUCER CARS

Producer-car loading has increased substantially since the beginning of the GMP. This has come about as a result of many factors, not the least of which has been the formation of producer-car loading groups. These range from small groups loading cars with mobile augers on a designated siding, to more sophisticated organizations with significant investments in fixed trackside storage and carloading facilities.<sup>63</sup> 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

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

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

Figure 85: Producer-Car Loading Sites



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 2011-12 crop year, only 366 out of 709 remained. Much of the overall decline can be traced back to the closures made by the larger Class 1 carriers, which reduced its serviced sites by 63.7%, to 234 from 644. Conversely, those operated by the smaller Class 2 and 3 carriers increased by 103.1%, to 132 from 65. [Table 6B-1]

Regionally, Manitoba and Alberta posted the largest attrition rates, with the number of producer loading sites declining by 66.5% and 61.8% respectively. The rate of decline in Saskatchewan was substantially less, with the number of sites having fallen by only 28.7% during the same interval. And while the overall number of producer loading sites has

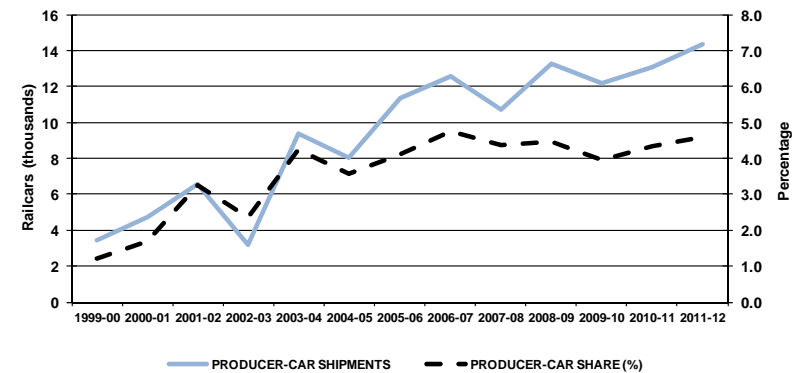
declined sharply, the reduction has also been somewhat irregular, with the largest cuts having come in the first few years of the GMP. A significant secondary reduction came in the 2009-10 crop year after CN closed 53 sites, with another six being closed by other carriers. This was followed by the closure of 13 producer-car-loading sites in the 2010-11 crop year. However, the 2011-12 crop year saw little real change with the addition of but one site. Even so, the establishment of a new shortline, Big Sky Rail, saw the count associated with the Class 1 carriers decreased by 17 while raising that of the Class 2 and 3 carriers correspondingly.

### Producer Car Shipments

Even in the face of the reduction in producer-car-loading sites, producer-car shipments have risen significantly. Through the first decade of the GMP these shipments almost quadrupled, increasing to a high of 13,243 carloads in the 2008-09 crop year from 3,441 carloads in the base year. To be sure this growth in volume has not been altogether continual, but somewhat sluggish. Following a 1,045-carload slide in the 2009-10 crop year, producer-car loading rebounded by 6.9%, with 13,041 carloads shipped in the 2010-11 crop year. The 2011-12 crop year saw a further 10.0% gain, with a GMP record of 14,341 carloads being attained.

As producer-car volumes have increased, so too has its share of all covered hopper car movements. From an estimated 1.2% in the 1999-2000 crop year, producer-car shipments climbed to a GMP record of 4.7% in the 2006-07 crop year. Although this proportion fell back to as little as 4.0% three years later, by the close of the 2011-12 crop year producer cars were again accounting for 4.6% of all hopper-car shipments. When gauged against the movement of CWB grains alone, the share accorded to producer-car shipments rises, with a GMP record of 7.8% set in the year just ended.

Figure 86: Producer-Car Shipments



Despite this record, many producers had begun to wonder if the growth in producer-car loading can be sustained. More specifically, they had begun to consider the ramifications for producer-car loading in the face of the federal government's decision to eliminate the Canadian Wheat Board's monopoly in the marketing of wheat and barley beginning with the 2012-13 crop year. Much of this concern centred on the role that had traditionally been played by the CWB in shepherding and marketing these grain shipments. [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.

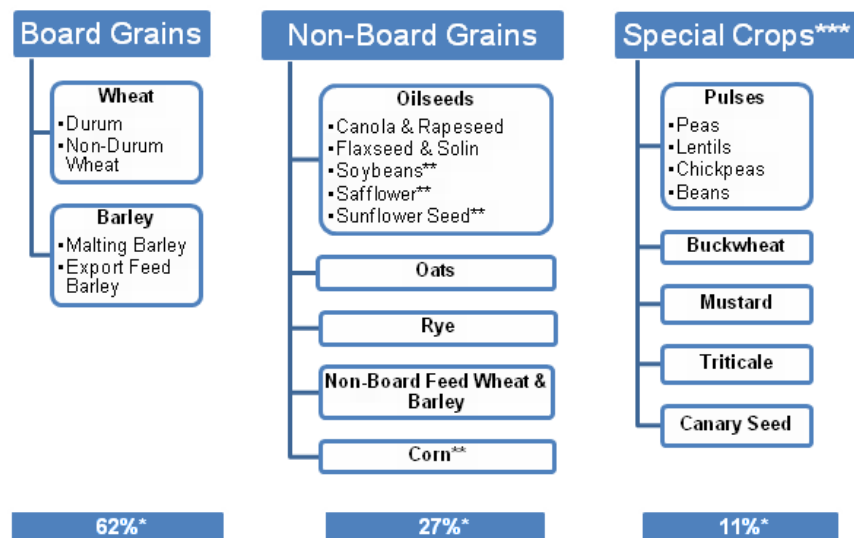
To this end, the GMP provides for a number of specific performance indicators grouped under six broad series, namely:

- 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. 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. Moreover, Quorum Corporation does not publish or share any of the data 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 is recorded and made accessible to the producer through a "history" listing. It is through this screen that producers are given the ability to create comparative reports that can present these estimates - or those they wish to see - in summary or detail. These reports can also be printed or presented as a computer spreadsheet. This is also the section of the system where the producer identifies estimates that subsequently resulted in actual grain movements.

Input	Results	Binned		Paid	
		Tonne	Bushel	Tonne	Bushel
Origin Point: SW 18X 12 X 20X W1	<b>CWB Pool Return Outlook</b>	\$192.00	\$9.23	\$196.00	\$5.33
Delivery Point: BRANDON	(Adj.) Freight To Vancouver		\$43.87		
Grain Company: Pioneer Grain Company, Limited	(Adj.) Freight To Thunder Bay		\$22.94		
4	Freight Adjustment Factor		\$9.83		
Commodity: Wheat	<b>Applicable Freight</b>		\$32.77		
Binned Grade: #2 CWRS 13.5	Trucking		\$5.05		
Paid At Grade: #1 CWRS 13.5	Primary Elevation		\$12.12		
Estimated Dockage (%): 1.0	Dockage Cleaning		\$4.04		
Trucking Mode: Commercial	<b>Sub-Total Other Costs</b>		\$21.21		
Truck Type: Tridom (tri-axle)	Trucking Premiums		\$(3.50)		
Number of Trips: 2	Other Premiums		\$(0.00)		
Gross Tonnes To Deliver: 60	<b>Sub-Total Producer Premiums</b>		\$(3.50)		
Distance To Elevator (Miles): 23	<b>Total Export Basis</b>	\$50.48		\$50.48	
Trucking Premiums: \$3.50	<b>Producer Netback</b>	\$141.52	\$3.85	\$145.52	\$3.96
Other Premiums: \$0.00					

The output screen for Quorum Corporation's Netback Calculator.

## Appendix 4: Acknowledgements

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

Agricultural Producers Association of Saskatchewan  
 Agriculture and Agri-Food Canada  
 Alberta Agriculture, Food and Rural Development  
 Alberta Infrastructure and Transportation  
 Alliance Grain Terminal Ltd.  
 Alliance Pulse Processors Inc.  
 Battle River Railway  
 Big Sky Rail Corp.  
 Boundary Trail Railway Company Inc.  
 Canadian Canola Growers Association  
 Canadian Grain Commission  
 Canadian Maritime Chamber of Commerce  
 Canadian National Railway  
 Canadian Pacific Railway  
 Canadian Ports Clearance Association  
 Canadian Ship Owners Association  
 Canadian Special Crops Association  
 Canadian Transportation Agency  
 Canadian Wheat Board  
 Cando Contracting Ltd.  
 Canola Council of Canada  
 Cargill Limited  
 CMI Terminal

Fife Lake Railway Ltd.  
 Gardiner Dam Terminal  
 Government of British Columbia  
 Grain Growers of Canada  
 Great Sandhills Terminal  
 Great Western Railway Ltd.  
 ICE Futures Canada, Inc.  
 Inland Terminal Association of Canada  
 Keystone Agricultural Producers  
 Kinder Morgan Canada  
 Lethbridge Inland Terminal Ltd.  
 Louis Dreyfus Canada Ltd.  
 Manitoba Agriculture, Food and Rural Initiatives  
 Manitoba Infrastructure and Transportation  
 Mission Terminal Inc.  
 Mobile Grain Ltd.  
 National Farmers Union  
 North West Terminal Ltd.  
 OmniTRAX Canada, Inc.  
 Parrish & Heimbecker Ltd.  
 Paterson Grain  
 Port of Churchill  
 Port of Prince Rupert

Port of Thunder Bay  
 Port of Vancouver  
 Prairie West Terminal  
 Prince Rupert Grain Ltd.  
 Red Coat Road and Rail Ltd.  
 Richardson Pioneer Ltd.  
 Saskatchewan Agriculture and Food  
 Saskatchewan Highways and Transportation  
 Saskatchewan Association of Rural Municipalities  
 South West Terminal  
 Statistics Canada  
 Stewart Southern Railway  
 Transport Canada  
 Viterra Inc.  
 West Central Road and Rail Ltd.  
 Western Barley Growers Association  
 Western Canadian Wheat Growers Association  
 Western Grain By-Products Storage Ltd.  
 Western Grain Elevator Association  
 Weyburn Inland Terminal Ltd.  
 Wild Rose Agricultural Producers

## Appendix 5: Data Tables

### PREFACE

The material presented in the accompanying tables is drawn from data supplied by the various stakeholders in Canada's Grain Handling and Transportation System. These include the Canadian Wheat Board, the Canadian Grain Commission, the Canadian Ports Clearance Association, Statistics Canada, various grain companies, and individual railway companies. The majority of this data is of a secondary nature and reflects the internal data collection practices as well as informational needs of the individual stakeholders. Moreover, the data also comes in a variety of mediums, structures and levels of detail that require considerable transformation and manipulation in order to be rendered usable.

With this in mind, the reader is cautioned regarding the limitations that must be taken into account when considering the material presented. Firstly, although every reasonable effort has been made to ensure that the data used accurately reflects the activity being reported upon, it is largely drawn from un-audited sources. As such, errors in the data collected - whether by way of inclusion or omission - will also be reflected in the statistics presented. As a result, periodic corrections may result in the restatement of previously calculated measurement values. Where such differences arise, the values presented here should be considered to supersede those found in earlier reports.

Secondly, the point in time at which individual stakeholders collect data often differs, and generally makes exact matches in any direct comparison impossible. These differences, however, do not detract from the relative comparisons and general observations that may be drawn from the statistics. Thirdly, inconsistent or incomplete reporting makes some estimation necessary. Where such estimations are made, an accompanying footnote will generally detail the specific nature of the approximation. Finally, not all of the data requested of stakeholders has been made available to the Monitor. As a result, the Monitor is unable to calculate or present a number of the measures originally contemplated under the Grain Monitoring Program.

QUORUM CORPORATION  
Edmonton, Alberta

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Section	Table No.	Table Name	Previous Table No
<b>1. PRODUCTION AND SUPPLY</b>			
<b>1A Production and Supply</b>			
	1A-1	Crop Production: Major Grains (000 tonnes) - Province / Commodity	-
	1A-2	Carry Forward Stock: Major Grains (000 tonnes) - Province / Commodity	-
	1A-3	Crop Production: Special Crops (000 tonnes) - Province / Commodity	-
<b>2. TRAFFIC AND MOVEMENT</b>			
<b>2A Country Elevator Throughput</b>			
	2A-1	Grain Throughput (000 tonnes) - Origin Province / Grain	<i>(Formerly 3B-1)</i>
<b>2B Railway Traffic</b>			
	2B-1	Railway Shipments (000 tonnes) - Destination Port / Car Type / Origin Province	-
	2B-2	Special Crop Shipments (000 tonnes) - Destination Port / Car Type / Commodity	<i>(Formerly 1B-4)</i>
	2B-3	Hopper Car Shipments (000 tonnes) - Destination Port / Origin Province	<i>(Formerly 3C-1)</i>
	2B-4	Hopper Car Shipments (000 tonnes) - Destination Port / Commodity	<i>(Formerly 3C-2)</i>
	2B-5	Hopper Car Shipments (000 tonnes) - Destination Port / Origin Province / Commodity	<i>(Formerly 3C-3)</i>
	2B-6	Hopper Car Shipments (000 tonnes) - Railway Line Class / Commodity	<i>(Formerly 1D-2)</i>
	2B-7	Hopper Car Shipments (000 tonnes) - Railway Class / Commodity	<i>(Formerly 1D-5)</i>
<b>2C Terminal Elevator Throughput</b>			
	2C-1	Grain Throughput (000 tonnes) - Destination Port / Grain	<i>(Formerly 3D-1)</i>
	2C-2	Hopper Cars Unloaded (number) - Destination Port / Railway Carrier	<i>(Formerly 1E-2)</i>
<b>3. INFRASTRUCTURE</b>			
<b>3A Country Elevator Infrastructure</b>			
	3A-1	Primary and Process Grain Elevators - Province	<i>(Formerly 1C-1)</i>
	3A-2	Primary and Process Grain Elevators - Railway Class	<i>(Formerly 1C-2)</i>
	3A-3	Primary and Process Grain Elevators - Grain Company	<i>(Formerly 1C-3)</i>
	3A-4	Elevators Capable of Multiple-Car Block Loading - Province / Facility Class	<i>(Formerly 1C-4)</i>
	3A-5	Elevators Capable of Multiple-Car Block Loading - Railway Class / Facility Class	<i>(Formerly 1C-5)</i>
	3A-6	Elevators Capable of Multiple-Car Block Loading - Railway Line Class / Facility Class	<i>(Formerly 1C-6)</i>
	3A-7	Elevator Closures (number) - Facility Class	-
	3A-8	Elevator Openings (number) - Facility Class	-
	3A-9	Locations Accounting for 80% of Deliveries (number)	<i>(Formerly 1C-13)</i>

Section	Table No.	Table Name	Previous Table No
<b>3B Railway Infrastructure</b>			
	3B-1	Railway Infrastructure (route-miles) - Province / Railway Class / Railway Line Class	(Formerly 1D-1)
	3B-2	INSUFFICIENT DATA - Fleet size for mainline carriers	(Formerly 1D-4)
	3B-3	Primary and Process Grain Elevators - Railway Line Class / Railway Class	(Formerly 1D-6)
<b>3C Terminal Elevator Infrastructure</b>			
	3C-1	Terminal Elevators - Port / Facility Class	(Formerly 1E-1)
<b>4. Commercial Relations</b>			
<b>4A Trucking Rates</b>			
	4A-1	Composite Freight Rates (dollars per tonne) - Short-Haul Trucking	(Formerly 3A-1)
<b>4B Country Elevator Handling Charges</b>			
	4B-1	Average Handling Charges - Province / Grain	(Formerly 3B-6)
<b>4C Railway Freight Rates</b>			
	4C-1	Composite Freight Rates (dollars per tonne) - Destination Port / Origin Province / Railway Carrier	(Formerly 3C-11)
	4C-2	Multiple-Car Shipment Incentives (dollars per tonne) - Destination Port / Origin Province / Railway Carrier	(Formerly 3C-12)
	4C-3	Effective Freight Rates under CTA Revenue Cap (dollars per tonne) - Railway Carrier	(Formerly 3C-13)
<b>4D Terminal Elevator Handling Charges</b>			
	4D-1	Average Handling Charges - Destination Port / Grain	(Formerly 3D-11)
<b>4E Tendering Program</b>			
	4E-1	Tenders Called (tonnes) - Destination Port / Grain	(Formerly 2A-1)
	4E-2	Tenders Called (tonnes) - Destination Port / Grain / Grade	(Formerly 2A-2)
	4E-3	Tender Bids (tonnes) - Destination Port / Grain	(Formerly 2A-3)
	4E-4	Tender Bids (tonnes) - Destination Port / Grain / Grade	(Formerly 2A-4)
	4E-5	Tendered Movements (tonnes) - Destination Port / Grain	(Formerly 2A-5)
	4E-6	Tendered Movements (tonnes) - Destination Port / Grain / Grade	(Formerly 2A-6)
	4E-7	Tendered Volumes Not Filled (tonnes) - Destination Port / Grain / Category	(Formerly 2A-7)
	4E-8	Tendered Volumes Not Awarded to Lowest Bidder (tonnes) - Destination Port / Grain	(Formerly 2A-8)
	4E-9	Tendered Movements (tonnes) - Sales Class	(Formerly 2A-9)
	4E-10	Tendered Movements (tonnes) - Destination Port	(Formerly 2A-10)
	4E-11	Tendered Movements (tonnes) - Railway Carrier	(Formerly 2A-11)
	4E-12	Tendered Movements (tonnes) - Destination Port / MCB Class	(Formerly 2A-12)
	4E-13	Tendered Movements: Penalized Shipments (railcars) - Destination Port / Penalty Class	(Formerly 2A-13)
	4E-14	Tendered Movements: Elevator Class (tonnes) - Origin Province / Destination Port / Grain	(Formerly 2A-14)

Section	Table No.	Table Name	Previous Table No
	4E-15	Tendered Movements (tonnes) - Month	<i>(Formerly 2A-15)</i>
	4E-16	Tendered Movements: Delivery Points (number) - Contract Size	<i>(Formerly 2A-16)</i>
	4E-17	Tendered Movements: Average Multiple-Car Block (railcars) - Destination Port	<i>(Formerly 2A-17)</i>
	4E-18	Railway Car Cycle: CWB Grains (days) - Destination Corridor / Tender Class	<i>(Formerly 2A-18)</i>
	4E-19	Tendered Movements: Accepted Bids (dollars per tonne) - Destination Port / Grain	<i>(Formerly 2A-19)</i>
	4E-20	Market Share (tonnes) - Tender Class / Grain / Grain Company Class	<i>(Formerly 2A-20)</i>
<b>4F Advance Car Awards Program</b>			
	4F-1	Advance Award Movements (tonnes) - Destination Port / Grain	<i>(Formerly 2B-1)</i>
	4F-2	Advance Award Movements (tonnes) - Destination Port	<i>(Formerly 2B-2)</i>
	4F-3	Advance Award Movements (tonnes) - Railway Carrier	<i>(Formerly 2B-3)</i>
	4F-4	Advance Award Movements: Elevator Class (tonnes) - Origin Province / Destination Port / Grain	<i>(Formerly 2B-4)</i>
	4F-5	Advance Award Movements (tonnes) - Month	<i>(Formerly 2B-5)</i>
	4F-6	Railway Car Cycle: Advance Award Movements (days) - Destination Corridor	<i>(Formerly 2B-6)</i>
	4F-7	Advance Award Movements (tonnes) - Destination Port / MCB Class	<i>(Formerly 2B-7)</i>
	4F-8	Advance Award Movements: Average Multiple-Car Block (railcars) - Destination Port	<i>(Formerly 2B-8)</i>
<b>5. SYSTEM EFFICIENCY AND PERFORMANCE</b>			
<b>5A Country Elevator Operations</b>			
	5A-1	Capacity Turnover Ratio - Origin Province	<i>(Formerly 3B-2)</i>
	5A-2	Weekly Elevator Stock Level (000 tonnes) - Origin Province	<i>(Formerly 3B-3)</i>
	5A-3	Days-in-Store - Origin Province / Grain	<i>(Formerly 3B-4)</i>
	5A-4	Weekly Stock-to-Shipment Ratio - Grain	<i>(Formerly 3B-5)</i>
<b>5B Railway Operations</b>			
	5B-1	Railway Car Cycle: All Commodities (days) - Destination Corridor	<i>(Formerly 3C-4)</i>
	5B-2	Railway Car Cycle: Non-Special Crops (days) - Destination Corridor	<i>(Formerly 3C-5)</i>
	5B-3	Railway Car Cycle: Special Crops (days) - Destination Corridor	<i>(Formerly 3C-6)</i>
<b>New!</b>	5B-4	Railway Loaded Transit Time: All Commodities (days) - Destination Corridor / Originating District	-
	5B-5	Hopper Car Shipments (000 tonnes) - Incentive Class / MCB Class	<i>(Formerly 3C-8)</i>
	5B-6	Hopper Car Shipments: Earned Incentives (\$ millions) - MCB Class	<i>(Formerly 3C-9)</i>
	5B-7	Railway Traffic Density (tonnes per route-mile) - Railway Line Class / Railway Class	<i>(Formerly 3C-10)</i>
<b>5C Terminal Elevator Operations</b>			
	5C-1	Capacity Turnover Ratio - Destination Port	<i>(Formerly 3D-2)</i>
	5C-2	Weekly Elevator Stock Level (000 tonnes) - Destination Port / Grain	<i>(Formerly 3D-3)</i>
	5C-3	Days-in-Store: Operating Season - Destination Port / Grain	<i>(Formerly 3D-4)</i>
	5C-4	Weekly Stock-to-Shipment Ratio - Destination Port / Grain	<i>(Formerly 3D-5)</i>
	5C-5	Weekly Stock-to-Shipment Ratio - Destination Port / Grain / Grade	<i>(Formerly 3D-6)</i>

Section	Table No.	Table Name	Previous Table No.
<b>5D Port Operations</b>			
	5D-1	Vessel Time in Port (days) - Time Class / Destination Port	(Formerly 3D-7)
	5D-2	Vessel Time in Port (frequency) - Destination Port / Time Class	(Formerly 3D-8)
	5D-3	Berths per Vessel (frequency) - Destination Port	(Formerly 3D-9)
	5D-4	Annual Demurrage Costs and Dispatch Earnings (\$ millions) - Gateway	(Formerly 3D-10)
	5D-5	Weekly Stock-to-Vessel Requirement Ratio - Destination Port / Grain	(Formerly 4A-1)
	5D-6	Weekly Stock-to-Vessel Requirement Ratio - Gateway / Grain / Grade	(Formerly 4A-2)
	5D-7	Weekly Stock-to-Shipment Ratio - Destination Port / Commodity Group	(Formerly 4A-3)
	5D-8	Terminal Handling Revenues and CWB Carrying Costs (\$ millions) - Destination Port	(Formerly 4A-4)
<b>5E System Performance</b>			
	5E-1	Total Time in the Supply Chain (days)	-
<b>6. PRODUCER IMPACT</b>			
<b>6A Export Basis and Netback Calculation</b>			
	6A-1A	Manitoba East - 1CWRS Wheat	(Formerly 5A-1A)
	6A-1B	Manitoba East - 1CWA Durum	(Formerly 5A-1B)
	6A-1C	Manitoba East - 1Canada Canola	(Formerly 5A-1C)
	6A-1D	Manitoba East - Canadian Large Yellow Peas - No. 2 or Better	(Formerly 5A-1D)
	6A-2A	Manitoba West - 1CWRS Wheat	(Formerly 5A-2A)
	6A-2B	Manitoba West - 1CWA Durum	(Formerly 5A-2B)
	6A-2C	Manitoba West - 1Canada Canola	(Formerly 5A-2C)
	6A-2D	Manitoba West - Canadian Large Yellow Peas - No. 2 or Better	(Formerly 5A-2D)
	6A-3A	Saskatchewan Northeast - 1CWRS Wheat	(Formerly 5A-3A)
	6A-3B	Saskatchewan Northeast - 1CWA Durum	(Formerly 5A-3B)
	6A-3C	Saskatchewan Northeast - 1Canada Canola	(Formerly 5A-3C)
	6A-3D	Saskatchewan Northeast - Canadian Large Yellow Peas - No. 2 or Better	(Formerly 5A-3D)
	6A-4A	Saskatchewan Northwest - 1CWRS Wheat	(Formerly 5A-4A)
	6A-4B	Saskatchewan Northwest - 1CWA Durum	(Formerly 5A-4B)
	6A-4C	Saskatchewan Northwest - 1Canada Canola	(Formerly 5A-4C)
	6A-4D	Saskatchewan Northwest - Canadian Large Yellow Peas - No. 2 or Better	(Formerly 5A-4D)
	6A-5A	Saskatchewan Southeast - 1CWRS Wheat	(Formerly 5A-5A)
	6A-5B	Saskatchewan Southeast - 1CWA Durum	(Formerly 5A-5B)
	6A-5C	Saskatchewan Southeast - 1Canada Canola	(Formerly 5A-5C)
	6A-5D	Saskatchewan Southeast - Canadian Large Yellow Peas - No. 2 or Better	(Formerly 5A-5D)
	6A-6A	Saskatchewan Southwest - 1CWRS Wheat	(Formerly 5A-6A)
	6A-6B	Saskatchewan Southwest - 1CWA Durum	(Formerly 5A-6B)
	6A-6C	Saskatchewan Southwest - 1Canada Canola	(Formerly 5A-6C)
	6A-6D	Saskatchewan Southwest - Canadian Large Yellow Peas - No. 2 or Better	(Formerly 5A-6D)



Section	Table No.	Table Name	Previous Table No.
	6A-7A	Alberta North - 1CWRS Wheat	<i>(Formerly 5A-7A)</i>
	6A-7B	Alberta North - 1CWA Durum	<i>(Formerly 5A-7B)</i>
	6A-7C	Alberta North - 1Canada Canola	<i>(Formerly 5A-7C)</i>
	6A-7D	Alberta North - Canadian Large Yellow Peas - No. 2 or Better	<i>(Formerly 5A-7D)</i>
	6A-8A	Alberta South - 1CWRS Wheat	<i>(Formerly 5A-8A)</i>
	6A-8B	Alberta South - 1CWA Durum	<i>(Formerly 5A-8B)</i>
	6A-8C	Alberta South - 1Canada Canola	<i>(Formerly 5A-8C)</i>
	6A-8D	Alberta South - Canadian Large Yellow Peas - No. 2 or Better	<i>(Formerly 5A-8D)</i>
	6A-9A	Peace River - 1CWRS Wheat	<i>(Formerly 5A-9A)</i>
	6A-9B	Peace River - 1CWA Durum	<i>(Formerly 5A-9B)</i>
	6A-9C	Peace River - 1Canada Canola	<i>(Formerly 5A-9C)</i>
	6A-9D	Peace River - Canadian Large Yellow Peas - No. 2 or Better	<i>(Formerly 5A-9D)</i>
	6A-10A	Western Canada - 1CWRS Wheat	<i>(Formerly 5A-10A)</i>
	6A-10B	Western Canada - 1CWA Durum	<i>(Formerly 5A-10B)</i>
	6A-10C	Western Canada - 1Canada Canola	<i>(Formerly 5A-10C)</i>
	6A-10D	Western Canada - Canadian Large Yellow Peas - No. 2 or Better	<i>(Formerly 5A-10D)</i>
<b>6B Producer Cars</b>			
	6B-1	Producer Car Loading Sites (number) - Province / Railway Class	<i>(Formerly 5B-1)</i>
	6B-2	Producer Car Shipments (railcars) - Origin Province / Grain	<i>(Formerly 5B-2)</i>