

# Third Quarter Report

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## 2012-2013 Crop Year

Monitoring the Canadian Grain  
Handling and Transportation System



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 nine months ended 30 April 2013, and focuses on the various events, issues and trends manifest in the movement of Western Canadian grain during the first three quarters of the 2012-13 crop year.

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

- 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 2012-13 crop year is largely gauged against that of the 2011-12 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 fourteen crop years. This data constitutes the backbone of the GMP, and is used widely to identify significant trends and changes in GHTS performance. It should also be noted that, as a result of the federal government's decision to repeal the Canadian Wheat Board's monopoly over the sale of wheat and barley, the measures pertaining to its tendering and advance-car-awards programs have now been discontinued.

Although the data tables presented in Appendix 4 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

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## Executive Summary

### PRODUCTION AND SUPPLY

Following two consecutive years of spring flooding, Western Canadian farmers, benefitting from generally favourable growing conditions, brought in the largest harvest since the 2009-10 crop year. Moreover, above-average yields and quality were reported across much of the prairies. As a result, overall grain production for the 2012-13 crop year increased by 3.8%, to 55.6 million tonnes from the previous crop year's 53.5 million tonnes. When combined with 6.1 million tonnes of carry-forward stocks, the grain supply reached 61.7 million tonnes. This reflected a 0.7% reduction from the previous crop year's 62.2 million tonnes.

### TRAFFIC AND MOVEMENT

Despite a minor decrease in the grain supply, the Grain Handling and Transportation System's (GHTS) total handlings actually increased in the first nine months of the 2012-13 crop year. Although a steady decline in country-elevator deliveries was witnessed through this period, the Grain Monitoring Program (GMP) saw record-setting volumes of grain 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, decreased by 3.1%, to 27.0 million tonnes from 27.9 million tonnes a year earlier. Progressively weaker second- and third-quarter shipments effectively undermined the record-setting pace that had been set in the opening quarter of the crop year. This result was largely shaped by reduced shipments from Saskatchewan and Alberta in the second and third quarters, with their total shipments for the nine-month period falling by 10.3% and 0.5% respectively. A 17.3% increase in shipments from Manitoba helped to partially offsetting these losses.
  - The amount of grain moved by rail to western Canadian ports increased by 3.7%, to a GMP record of 23.9 million tonnes, from 23.0 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 22.9 million tonnes, moved in covered hopper cars. The remaining 952,100 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, with covered-hopper-car shipments increasing by 5.7%, to a GMP record of 13.8 million tonnes, from 13.0 million tonnes. Complementing this was Prince Rupert, which posted a 4.4% increase, with volume climbing to 4.1 million tonnes from 3.9 million tonnes. In contrast, rail shipments to Thunder Bay fell by 2.1%, with volume falling to 4.6 million tonnes from 4.7 million tonnes. Rail deliveries to Churchill also declined, albeit by a more substantive 16.2%, to 412,300 tonnes from 491,800 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 21.0 million tonnes in the first nine months of the 2012-13 crop year. This represented a new GMP record and a 1.7% increase over the 20.7 million tonnes handled in the same period a year earlier. Vancouver accounted for 59.1% of this volume, with total marine shipments increasing by 4.0%, to 12.4 million tonnes from 12.0 million tonnes. This was supported by a somewhat lesser 3.0% increase in volume for Prince Rupert, which rose to 3.9 million tonnes from 3.8 million tonnes a year earlier. Thunder Bay witnessed a 3.1% decrease in volume, with throughput falling to 4.3 million tonnes from 4.4 million tonnes. Churchill reported an 18.0% decrease in its handlings, which fell to 422,600 tonnes from 515,100 tonnes.

## INFRASTRUCTURE

The infrastructure that defines the GHTS in western Canada has undergone significant change in the last 13 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). Even so, the evolution continues, with the following changes being noted in the first nine months of the 2012-13 crop year.

- The total number of country elevators increased by one, to 387 at the close of the previous crop year. This served to reduce the accumulated loss since the beginning of the GMP to 617 facilities, or 61.5%. Corresponding changes in the number of delivery points (up one to 272) and in the storage capacity (up 33,000 tonnes)
  - With the reduction of 230.1 route-miles of track in Saskatchewan and British Columbia, the western Canadian railway network shrank by 1.3% in the first nine months of the 2012-13 crop year, leaving 17,600.2 route-miles in place. Although this denotes a reduction of 9.6% from the 19,468.2 route-miles in place at the beginning of the GMP, the relative decline remains less than that of the elevator system it serves. There was also a shift in the balance between the Class 1 and non-Class-1 carriers as a result of the creation of two new shortline railways: the Lake Line Railroad; and the Long Creek Railroad. This served to reduce the infrastructure under Class 1 management to 14,907.3 route-miles, or 84.7%, and that under the non-Class-1 carriers to 2,692.9 route-miles, or 15.3%.
  - With no changes to the terminal elevator network recorded in the first nine months of the 2012-13 crop year, the system remained comprised of 16 licensed facilities with 2.2 million tonnes of storage capacity: Thunder Bay with seven elevators (43.6% of the storage capacity), Vancouver with seven facilities (40.9% of the storage capacity) and Prince Rupert and Churchill with one terminal elevator each (storage capacity of 9.5% and 6.4% respectively).
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## COMMERCIAL RELATIONS

The 2012-13 crop year brought the most significant change to the functioning of the GHTS in three generations: repeal of the CWB's monopoly over the sale of western Canadian wheat and barley. While there was little substantive change in the cost of many of the commercial services used to move grain through the GHTS during this period, railway freight rates moved substantially higher.

- Slumping oil prices did much to contain the commercial trucking rates associated with moving grain in the 2012-13 crop year. As a result, the composite price index for short-haul trucking remained unchanged at 162.2.
- Railway freight rates moved substantially higher in the first nine months of the 2012-13 crop year. Once again, these increases varied according to the corridor and carrier involved. Westbound movements saw the largest increases, with CN's single-car rates into both Vancouver and Prince Rupert rising by 15.6% while CP's rates into Vancouver rose by a slightly greater 17.5%. Eastbound pricing provided a greater degree of contrast between the carriers, with CN posting net increases on its single-car rates into Thunder Bay and Churchill of 1.9% and 1.5% respectively, while CP oversaw an 11.0% escalation on its movements into Thunder Bay.
- Only modest changes were noted in the per-tonne rates assessed by grain companies for a variety of primary elevator handling activities in the first nine months of the 2012-13 crop year. These ranged from a 0.1% increase in the rates they assessed for the removal of dockage to a 1.1% increase in those tied to the storage of grain.
- There was little real change to the rates assessed by the GHTS's terminal elevators for the receiving, elevating and loading out of grain in the first nine months of the 2012-13 crop year, with generally modest tariff adjustments leading the way to a 0.1% increase in the composite price index. The escalation applied to wheat and durum handled through Churchill proved to be the principal exception, with a third-quarter hike of 17.1% effectively raising the year-over-year rise to 48.5%. Modest adjustments were also true of storage charges, which showed a 0.4% gain.

### Commercial Developments

There were a number of significant developments in the commercial activities surrounding the movement of grain in the first nine months of the 2012-13 crop year. Moreover, a number of these would have a significant bearing on the workings of the GHTS in the years ahead.

- Following passage of the *Marketing Freedom for Grain Farmers Act* in December 2011, the Canadian Wheat Board (CWB) lost its long-held monopoly over the sale of western Canadian wheat and barley with the commencement of the 2012-13 crop year. This meant that producers were no longer obligated to sell wheat and barley intended for domestic human consumption or export solely to the CWB. Many in the grain industry had long argued for this change and had been preparing for open-market operations since the federal government announced its plans to introduce the enabling legislation. By most standards, this

transition to open-market operations appeared largely problem free. The new marketing environment also brought increased competition between grain companies, with price often being the key consideration in the producers' delivery choice. The new environment also appeared to have given farmers better flexibility in terms of grades, delivery options and predictable cash flow. In comparison to the grain companies, the revamped CWB appeared to face a number of transitional challenges. Since it possessed no grain-handling assets of its own, the CWB signed a variety of agreements with individual grain companies that would see these firms handling grain on its behalf. Even so, there were reported instances where elevator managers were reluctant to accept farmer deliveries on behalf of the CWB without a clear plan for outward shipping. Concerns that Canada's grain pipeline would struggle in the wake of the ending of the CWB's monopoly subsided fairly quickly in the opening months of the crop year as the GHTS moved record or near-record volumes.

- In March 2012 it was revealed that Viterra Inc. (Viterra), Canada's largest grain company, had agreed to be acquired by Glencore International PLC (Glencore) in an all-cash transaction valued at approximately \$6.1 billion. Regina-based Viterra controlled a domestic network encompassing 96 licensed primary and process elevators, along with seven port terminals handling about 45% of all the grain delivered by producers in western Canada. The sale included separate agreements with Agrium Inc. (Agrium) and Richardson International Limited (Richardson International) for the sale of specific Viterra assets. It is important to note that the proposed divestiture of assets to Richardson International would alter the competitive balance that had existed between the two largest grain handlers in western Canada. Although subject to various court, shareholder and regulatory approvals, by the close of the 2011-12 crop year, only the endorsement of China's Ministry of Commerce remained outstanding which ultimately came five months later. Glencore moved quickly to finalize its acquisition of Viterra, completing the transaction on 18 December 2012. Concurrent with this, the Competition Bureau gave its approval to the sale of over \$800 million in Viterra's existing grain-handling assets to Richardson International. The sale was expected to be finalized before the close of the 2012-13 crop year. This was not, however, the case for those assets slated for sale to Agrium, which had yet to receive approval from the Competition Bureau.
- The 2011-12 crop year saw the first significant investment in the terminal elevator network in several years. The most noteworthy of these involved an expansion of the Richardson International facility in North Vancouver. The \$120-million investment, which received a project permit from Port Metro Vancouver in mid April 2013, would increase the facility's storage capacity by 64.8%, to 178,000 tonnes from its current 108,000 tonnes. Already handling some 3 million tonnes of grain and oilseeds annually, this expansion would enable the company to boost its yearly throughput to over 5 million tonnes. This expansion also comes atop other anticipated changes in the makeup of Richardson International's terminal-elevator network, much of which stems from Glencore's takeover of Viterra, and which provided for the sale of certain commercial interests and assets to Richardson International. Although the company had yet to take formal title of these assets, the transfer was widely expected to enhance its grain-handling abilities in both the Canadian and international marketplace.
- In December 2012 the federal government enacted a number of amendments to the *Canada Grain Act*. These amendments, which marked the first substantive changes to the Act in more than forty years, were aimed at modernizing and streamlining the

operations of the Canadian Grain Commission (CGC), eliminating any unnecessary or redundant services, and reducing the regulatory burden on the grain industry. Among the more noteworthy provisions of the legislation was the transfer of responsibility for inward weighing and inspection at terminal elevators from the CGC to the private sector. Similarly, the responsibility for the weighing and inspecting of domestic laker shipments was also to be transferred to the private sector. Other changes included: the elimination of the Grain Appeal Tribunal, along with the registration and cancellation of receipts, and weighovers at local elevators; the combination of existing terminal and transfer elevator licenses into a single terminal elevator class; and the replacement of the current Payment Protection Program with an insurance-based producer payment protection mechanism.

- In response to the Rail Freight Service Review panel's final report which was submitted to the Minister of State (Transport) in late December 2010, the federal government announced a four-point course of action that would ultimately lead to legislation giving shippers the right to railway service agreements. These efforts culminated in the introduction of Bill C-52, the *Fair Rail Freight Service Act*, in the House of Commons on 11 December 2012. The bill's primary thrust is directly aimed at incentivizing shippers and railways alike to commercially negotiate their own service agreements. However, the bill also contains provisions for arbitration should such negotiations prove unsuccessful, and monetary penalties of up to \$100,000 for each violation of an arbitrated service level agreement. Passage of Bill C-52 was not expected much in advance of the 2013-14 crop year.

## SYSTEM EFFICIENCY AND PERFORMANCE

Despite a modest decrease in the grain supply, which declined to 61.7 million tonnes from 62.2 million tonnes a year earlier, the amount of grain shipped in the first nine months of the 2012-13 crop year reached a GMP record of 23.9 million tonnes. This meant that the demand pressures brought to bear on the GHTS proved to be the greatest yet observed for this period under the GMP.

- The overall amount of time involved in moving grain through the supply chain rose by 0.8% in the first nine months of the 2012-13 crop year, to an average of 47.5 days from the previous crop year's overall 47.1-day average. This was due primarily to the additional time spent by grain in storage at a terminal elevator, which rose by an average of 0.4 days. A further 0.1 days was gained from an increase in the amount of time grain spent in inventory in the country elevator system but this was countered by a 0.1-day reduction in the railways' loaded transit time. Despite this elongation, the overall average still ranks among the lowest yet observed under the GMP.
- While the measures gathered under the GMP suggest that the GHTS bore these pressures reasonably well, there were signs that the system might also have begun to bend under the stress. These indications, which largely began to manifest themselves towards the end of October 2012, centred on some emergent problems with railcar supply in the country. In the second quarter, this shifted to a sharp rise in the number of ships waiting to load, particularly at the port of Vancouver. By the third quarter a hard winter was beginning to undermine railway operations, producing longer car cycles that only aggravated these earlier problems. The operational problems that began to appear in the last two quarters suggest that the demands placed on the supply chain might well have exceeded what the GHTS was capable of meeting on a consistent basis.

## 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. The GMP only includes the producer netback in the Monitor's annual reports since certain elements integral to the calculation are not available until after the close of the crop year itself. Nevertheless, relevant pricing and handling-cost data is collected for both wheat and canola as a means of providing some insight into their probable impact on the per-tonne financial return arising to producers. Some of the changes observed during the first nine months of the 2012-13 crop year are summarized below.

- After moving steadily higher in the first quarter, the CWB's Harvest Pool Return Outlook (Harvest PRO) for 1 CWRS wheat (13.5% protein) began to slip in the face of softening markets, with the decline continuing into the third quarter. By mid March 2013 the Harvest PRO had fallen to an average of \$321.00 per tonne. This proved to be 1.5% below the 2011-12 crop year's final realized price of \$326.04 per tonne. To a large extent this fall in price reflected the growing prospect of an increase in the global wheat

supply, with better-than-expected production expectations leading to still lower prices at the close of the third quarter. This erosion suggests that the financial returns accruing to producers will likely decline modestly in the 2012-13 crop year.

- The Vancouver cash price for 1 Canada canola increased through the first nine months of the crop year. By the close of the period the average price of \$653.33 per tonne reached 10.9% above the previous crop year's final average of \$589.21 per tonne. Much of this gain came from an expected tightening of oilseed supplies in the face of a continuing strong demand. This increase also suggests that producers of 1 Canada canola are likely to witness a moderate improvement in their per-tonne financial returns for the 2012-13 crop year.

Producer-car loading has increased substantially since the beginning of the GMP. This has come about as a result of many factors, not the least of which has been the formation of producer-car loading groups. Some of the more significant changes observed in the first nine months of the 2012-13 crop year are noted below.

- The number of producer-car loading sites situated throughout western Canada has been reduced by almost half since the beginning of the GMP, with only 366 of the original 709 left in service at the close of the 2011-12 crop year. The first nine months of the 2012-13 crop year saw the closure of four sites, which reduced the remainder to 362. In the process, the count for Class 1 carriers diminished by six sites while that of the Class 2 and 3 carriers rose by two. By the end of the period, the number of sites operated by the major railways had fallen to 228 while those tied to the shortlines had increased to 134.
- Despite a strong showing in the first quarter, producer-car shipments fell sharply in the second and third quarters. As a result, total producer-car shipments for the first nine months of the 2012-13 crop year decreased by 31.9%, to 7,076 carloads from 10,385 carloads in the same period a year earlier. This represented 2.8% of all covered hopper car movements; a substantive reduction from the 4.2% share garnered twelve months before. While the share accorded to producer-car shipments of wheat, durum and barley fell dramatically, there was a sharp rise in the movement of oilseeds and other commodities. Much of this latter gain was attributable to the CWB's newly-acquired ability to handle these commodities, and which provided producers with a much needed marketer for these shipments.

## Section 1: Production and Supply

Indicator Description	Table	1999-00	2010-11	2011-12	2012-13				YTD	% VAR
					Q1	Q2	Q3	Q4		
<b>Production and Supply</b>										
Crop Production (000 tonnes)	1A-1	55,141.7	50,071.2	53,543.9	55,596.8				55,596.8	3.8%
Carry Forward Stock (000 tonnes)	1A-2	7,418.2	11,200.1	8,627.9	6,108.9				6,108.9	-29.2%
Grain Supply (000 tonnes)		62,559.9	61,271.3	62,171.8	61,705.7				61,705.7	-0.7%
Crop Production (000 tonnes) - Special Crops	1A-3	3,936.7	5,617.4	4,474.6	4,946.9				4,946.9	10.6%

## PRODUCTION AND SUPPLY

Following two consecutive years of spring flooding, Western Canadian farmers, benefitting from generally favourable growing conditions, brought in the largest harvest since the 2009-10 crop year. Moreover, above-average yields and quality were reported across much of the prairies. As a result, overall grain production for the 2012-13 crop year increased by 3.8%, to 55.6 million tonnes from the previous crop year's 53.5 million tonnes. [Table 1A-1]

Despite the increase in domestic production, global grain supplies were tightening. Production problems in the Black Sea as well as the American Midwest were the primary factors in this but were supported by smaller harvests in South America as well as Australia, all of which served to bolster or maintain commodity prices.

### Provincial Distribution

The overall increase in prairie grain production was wholly derived from Manitoba's heightened output, which rose by 62.1%, to 9.2 million tonnes from 5.7 million tonnes a year earlier. This expansion, which resulted in a better-than-average harvest for Manitoba, was attributable in large measure to the absence of severe flooding, and effectively served to counter production declines in the other provinces.<sup>1</sup>

Alberta realized a 5.8% drop in production with a 1.2-million-tonne, or, falling to 19.6 million tonnes from the 20.8-million-tonne record set a year earlier. Saskatchewan had a modest decline of 235,500 tonnes, with the province's harvest slipping to 26.5 million tonnes from 26.7 million tonnes. Adding to this was a 13.7% decrease in British Columbia

<sup>1</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. This was aggravated by flooding of the Souris River, which also flows into the Assiniboine River.

Figure 1: Precipitation Compared to Historical Distribution (1 April to 27 August 2012)

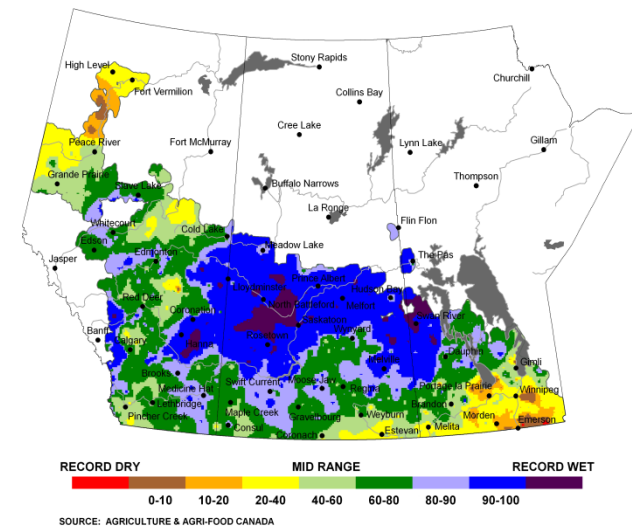
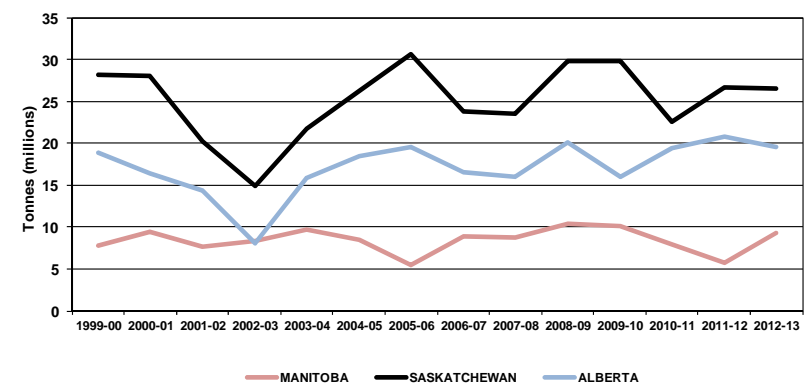


Figure 2: Provincial Grain Production



production, which fell to 283,200 tonnes from the previous crop year's 328,200 tonnes.

### Commodity Distribution

The 2012 growing season saw increased production for a number of crops. The most significant gain was made by wheat, durum and barley, which collectively rose by 8.1% against a 1.7% reduction in the output of oilseeds and other commodities. With total wheat, durum and barley production rising to 32.6 million tonnes from 30.1 million tonnes a year earlier, this sector accounted for 58.6% of total grain production. Oilseeds and other commodities fell to 23.0 million tonnes from 23.4 million tonnes, representing some 41.4% of the total output.

The 2.5-million-tonne increase in wheat, durum and barley production was led by a 10.5% increase in the amount of wheat harvested, which rose to 20.5 million tonnes from 18.5 million tonnes a year earlier. This was augmented by the effects of a 10.9% increase in durum production, which saw output rise to 4.6 million tonnes from 4.2 million tonnes the previous year. A 0.8% increase for barley saw production rise to 7.5 million tonnes from 7.4 million tonnes.

With 13.2 million tonnes of production, canola accounted for 57.4% of the 23.0 million tonnes of oilseeds and other commodities harvested in the 2012-13 crop year. Still, this represented a 1.3-million-tonne decrease from the 14.5 million tonnes of canola produced a year earlier, owing in large measure to the adverse effects of a poorer yield. Adding to this loss was a 466,400-tonne decrease in oat production, which fell to 2.4 million tonnes from 2.8 million a year earlier. These losses were tempered somewhat by a collective 1.3-million-tonne increase in the output of other commodities, chiefly dry peas and soybeans.

### Special Crops

Notwithstanding the broader production decline for oilseeds and other commodities, the output of special crops rebounded. Total production for

Figure 3: Grain Production - Major Commodity Groupings

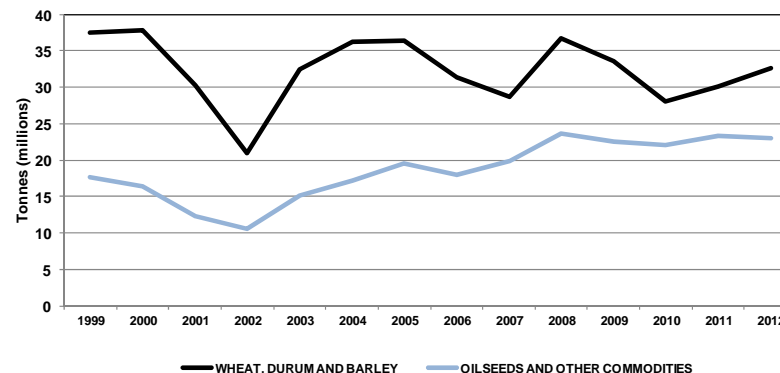
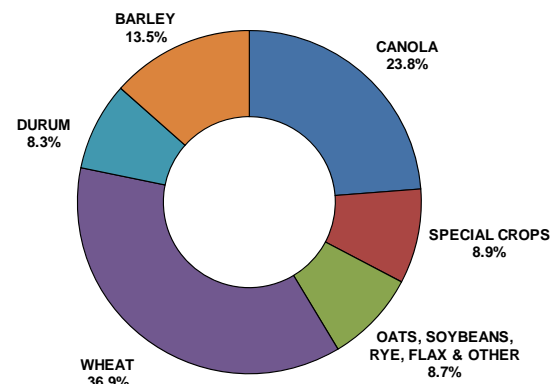


Figure 4: Major Grain Production - 2012-13 Crop Year





the sector amounted to 4.9 million tonnes, up 10.6% from the 4.5 million tonnes reported a year earlier.<sup>2</sup> This 472,300-tonne gain reflected a 13.1% increase in dry pea production - the sector's largest single crop - which rose to 2.8 million tonnes from 2.5 million tonnes a year earlier. This gain was augmented by a rise in the output of chickpeas, dry beans and sunflower seed. Detracting somewhat from these gains were modest reductions in the production of lentils, mustard seed and canary seed. [Table 1A-3]

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

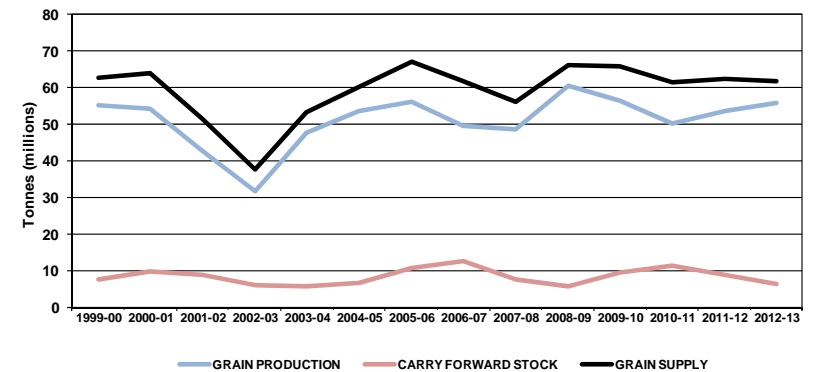
While grain production has the most immediate impact on the grain supply, it is also affected by the amount of grain held over in inventory from the previous crop year. In fact, carry-forward stocks typically account for about one-sixth of the overall grain supply.<sup>3</sup> These stocks tend to move in conjunction with changes in grain production, albeit on a lagging basis.

Totalling some 6.1 million tonnes, these stocks proved to be 29.2% less than the 8.6 million tonnes that had been carried forward a year earlier. Much of the impetus for this 2.5-million-tonne reduction came from the continuing strong demand for Canadian export grain in the previous crop year, which drew down year-end stock levels. When combined with 55.6 million tonnes of new production, the grain supply reached 61.7 million tonnes. This embodied a 0.7% reduction from the previous crop year's 62.2 million tonnes. [Table 1A-2]

<sup>2</sup> For the purposes of the GMP, special crops are defined as including the following: dry peas; lentils; mustard seed; canary seed; chickpeas; dry beans; sunflower seed; safflower seed; buckwheat; and fababeans. An often referenced subset of special crops, known as pulse crops, encompasses dry peas, lentils, chickpeas, dry beans and fababeans.

<sup>3</sup> Carry-forward stocks are defined as inventories on hand, be it on farms or at primary elevators, at the close of any given crop year (i.e., 31 July). As such, they are also deemed to be the stocks on hand as the new crop year begins (i.e., 1 August). The carry-forward stocks cited here are derived from data provided by Statistics Canada and the Canadian Grain Commission.

Figure 5: Western Canadian Grain Supply



With a 1.2-million-tonne reduction in its carry-forward stocks, Alberta posted the most substantive decline. This was enlarged by reductions of 918,100 tonnes and 424,000 tonnes for Saskatchewan and Manitoba respectively. Only British Columbia, which reported an increase of 42,200 tonnes, provided an offset to these reductions. With the exception of oats and rye, the carry-over for all major grain stocks moved sharply lower.

## Section 2: Traffic and Movement

Indicator Description	Table	2012-13								
		1999-00	2010-11	2011-12	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Throughput</b>										
Grain Throughput (000 tonnes) - Primary Elevators	2A-1	32,493.9	32,270.4	35,338.7	9,874.0	8,868.9	8,278.1	-	27,021.0	-3.1%
<b>Railway Traffic</b>										
Railway Shipments (000 tonnes) - All Grains	2B-1	26,439.2	28,007.8	29,261.9	8,728.3	7,789.1	7,339.8	-	23,857.2	3.7%
Railway Shipments (000 tonnes) - Hopper Cars	2B-1	25,664.6	27,096.7	28,152.9	8,433.0	7,494.2	6,977.9	-	22,905.1	3.3%
Railway Shipments (000 tonnes) - Non-Hopper Cars	2B-1	774.7	911.1	1,109.0	295.3	295.0	361.8	-	952.1	13.6%
Special Crop Shipments (000 tonnes) - All Grains	2B-2	2,102.9	3,524.7	2,623.4	1,165.4	627.5	1,124.3	-	2,917.3	37.9%
Special Crop Shipments (000 tonnes) - Hopper Cars	2B-2	1,844.1	3,480.6	2,476.5	1,128.7	585.1	1,067.3	-	2,781.1	38.7%
Special Crop Shipments (000 tonnes) - Non-Hopper Cars	2B-2	258.7	44.2	147.0	36.8	42.4	57.0	-	136.1	23.5%
Hopper Car Shipments (000 tonnes) - Origin Province	2B-3									
Hopper Car Shipments (000 tonnes) - Primary Commodities	2B-4	25,664.6	27,096.7	28,152.9	8,433.0	7,494.2	6,977.9	-	22,905.1	3.3%
Hopper Car Shipments (000 tonnes) - Detailed Breakdown	2B-5									
Hopper Car Shipments (000 tonnes) - Grain-Dependent Network	2B-6	8,685.9	7,672.8	8,490.9	2,554.3	2,116.8	1,955.3	-	6,626.4	-0.8%
Hopper Car Shipments (000 tonnes) - Non-Grain-Dependent Network	2B-6	16,978.7	19,423.8	19,662.0	5,878.7	5,377.3	5,022.7	-	16,278.7	5.1%
Hopper Car Shipments (000 tonnes) - Class 1 Carriers	2B-7	23,573.5	26,145.6	27,029.3	8,128.3	7,228.9	6,720.4	-	22,077.6	3.5%
Hopper Car Shipments (000 tonnes) - Non-Class-1 Carriers	2B-7	2,091.0	951.0	1,123.6	304.6	265.3	257.6	-	827.5	-2.2%
<b>Terminal Elevator Throughput</b>										
Grain Throughput (000 tonnes) - All Commodities	2C-1	23,555.5	25,428.1	26,896.9	7,570.3	7,376.6	6,098.1	-	21,045.0	1.7%
Hopper Cars Unloaded (number) - All Carriers	2C-2	278,255	283,101	295,397	92,740	81,978	65,609	-	240,327	1.9%
Hopper Cars Unloaded (number) - CN	2C-2	144,800	151,554	151,790	47,923	43,140	33,982	-	125,045	4.2%
Hopper Cars Unloaded (number) - CP	2C-2	133,455	131,547	143,607	44,817	38,838	31,627	-	115,282	-0.4%

### COUNTRY ELEVATOR THROUGHPUT

Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by 3.1% in the first nine months of the 2012-13 crop year. Progressively weaker second- and third-quarter shipments effectively undermined the record-setting pace that had been set in the opening quarter of the crop year. As a result of this downturn in volume, year-to-date shipments for the first nine months fell 869,100 tonnes short of the 27.9-million-tonne record set for the period just a year earlier, amounting to slightly more than 27.0 million tonnes instead.

This result was largely shaped by reduced shipments from Saskatchewan and Alberta in the second and third quarters. Primary-elevator shipments from Saskatchewan accounted for much of the decline, falling by 10.3%, to 12.4 million tonnes from 13.9 million tonnes a year earlier. Alberta followed with a 0.5% decrease in shipments, which fell to 10.3 million tonnes from 10.4 million tonnes. Partially offsetting these losses were heightened shipments from Manitoba and British Columbia. Manitoba provided the largest offset, with throughput rising by 17.3%, to 3.9 million tonnes from 3.4 million tonnes a year earlier. [Table 2A-1]

### RAILWAY TRAFFIC

The amount of regulated grain moved by rail to western Canadian ports in the first nine months of the 2012-13 crop year reached a new GMP record of 23.9 million tonnes, up 3.7% from the previous crop year's 23.0-million-tonne record. As in past years, the vast majority of this traffic, some 22.9 million tonnes, moved in covered hopper cars. The remaining 952,100 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 a comparatively small fraction of total railway shipments, although their share rose to 4.0% from 3.6% a year earlier. [Table 2B-1]

Figure 6: Primary Elevator Throughput

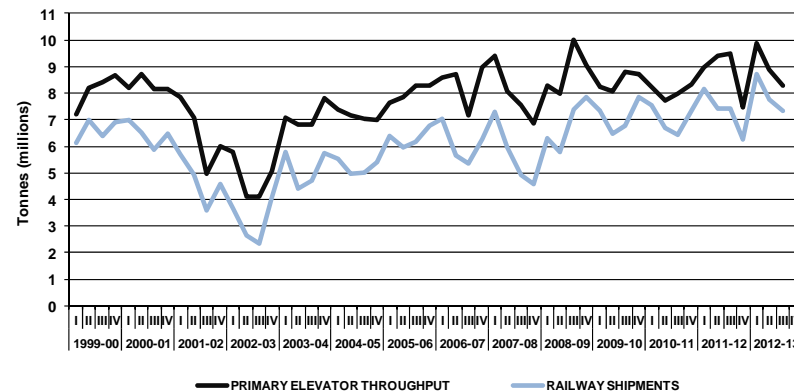
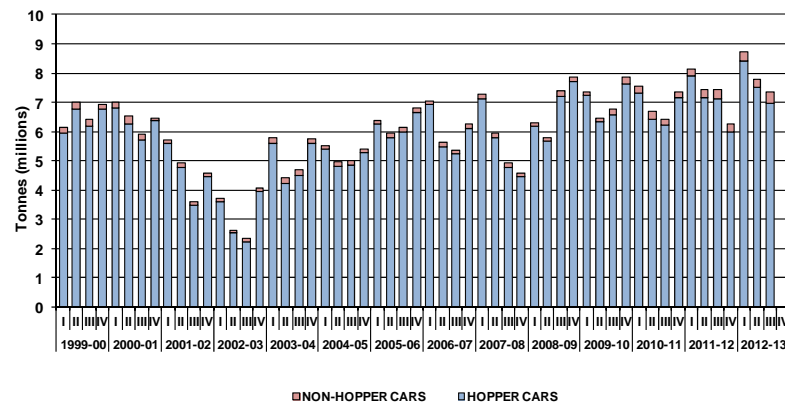


Figure 7: Railway Shipments - Hopper and Non-Hopper Cars



Compared to the grain movement in general, special-crop shipments proved particularly strong, increasing by 37.9% in the first nine months of the 2012-13 crop year. This led to the setting of a new GMP record for the period: 2.9 million tonnes against 2.1 million tonnes a year earlier. Hopper-car shipments accounted for 95.3% of this volume, rising by 38.7%, to almost 2.8 million tonnes from 2.0 million tonnes. A somewhat lesser 23.5% increase in non-hopper-car shipments (boxcars, containers and tankcars) resulted in its share of the overall movement falling to 4.7% from 5.2% a year earlier. [Table 2B-2]

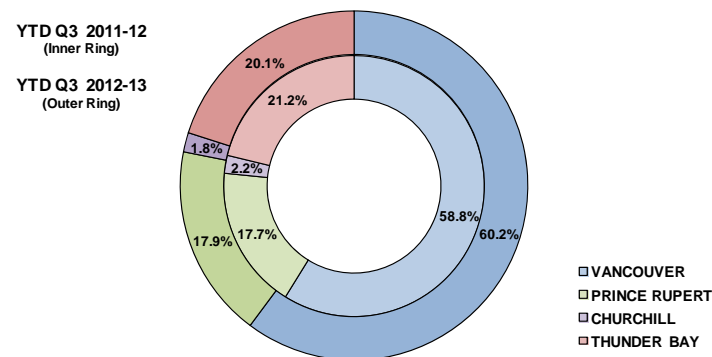
### Hopper Car Movements

Western Canadian hopper-car shipments reached a GMP record of 22.9 million tonnes in the first nine months of the 2012-13 crop year, a gain of 3.3% over the 22.2 million tonnes handled in the same period a year earlier. Although consistent with the 3.8% increase in grain production, the growth in hopper-car shipments easily bettered the downturn that had been anticipated from a 0.7% reduction in the grain supply.

This result was primarily shaped by an increase in traffic from Manitoba and Saskatchewan. Manitoba made the most substantive contribution, with total shipments rising by 27.7%, to 2.2 million tonnes from 1.7 million tonnes a year earlier. This was followed by Saskatchewan, which posted a 3.9% increase, with shipments rising to 10.7 million tonnes from 10.3 million tonnes. Complementing these increases was a 12.2% gain in BC volumes, with shipments rising to 210,100 tonnes from 187,200 tonnes. Partially countering these gains was a reduction in the amount of grain shipped from Alberta, which fell by 1.6%, to 9.8 million tonnes from 10.0 million tonnes. [Tables 2B-3 through 2B-5]

While the volume of grain directed into the GHTS is largely based on grain supply, its movement is constrained by the railways’ available carrying capacity. This encompasses 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 efficiency with which these resources are employed. A large portion of the volume gains witnessed since the

Figure 8: Railway Hopper Car Shipments – Destination Port



beginning of the GMP stems from the added carrying capacity derived through a 30% reduction in the average car cycle. A moderate contribution has also come from a 3.5% increase in payload weights, much of which has been tied to the railway industry’s use of larger hopper cars and an upgrading of the government-owned fleet.<sup>4</sup>

### Destination Ports

The port of Vancouver remained the principal export destination for western Canadian grain in the first nine months of the 2012-13 crop year. Traffic to Vancouver increased by 5.7%, to a GMP record of 13.8 million tonnes from the 13.0 million tonnes directed there in the same period a

<sup>4</sup> 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 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. Over the span of the GMP, this has helped to raise the average payload for a carload of grain by some three tonnes, to about 89 tonnes from the 86 tonnes benchmarked in the base year.

year earlier. The port’s share of railway shipments also increased, rising to 60.2% from 58.8%. In comparison, Prince Rupert posted a 4.4% increase in railway shipments, with volume climbing to 4.1 million tonnes from 3.9 million tonnes. The port also took a marginally greater share of the overall movement, which rose to 17.9% from 17.7%. On a combined basis, these two west-coast ports handled 78.1% of the grain directed to export positions, earning them a slightly greater proportion of the total grain movement than the 76.6% share they secured a year earlier.

This shift towards westbound grain shipments became more pronounced in the third quarter, with eastbound movements slumping noticeably as a result. In fact, total shipments into Thunder Bay and Churchill declined by 178,500 tonnes, or 3.4%, through the first nine months of the crop year. Rail deliveries into Thunder Bay fell by 2.1%, to 4.6 million tonnes from 4.7 million tonnes a year earlier. Consequently, the port’s share of total railway hopper-car shipments also fell, to 20.1% from 21.2%. Adding to this erosion was the decline in railway shipments into Churchill, which fell to 412,300 tonnes from 491,800 tonnes a year earlier. This too resulted in a traffic-share reduction, which decreased to 1.8% from 2.2%.<sup>5</sup>

### 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 first nine months of the 2012-13 crop year, the tonnage originated by the non-grain-dependent network increased by 5.1%, to 16.3 million tonnes from 15.5 million tonnes a year earlier. At the same time, traffic originating at points on the grain-dependent network fell by 0.8%, to 6.6 million tonnes from 6.7 million tonnes.

<sup>5</sup> Through to the end of the 2011-12 crop year the port of Churchill had benefited from the support of the Canadian Wheat Board (CWB). In the transition to a marketing environment where the CWB no longer exercised its traditional monopoly, the trade was slow to program grain movement through the port. In Churchill’s already short shipping season, this resulted in the first vessels being loaded a full week later than the previous year.

Figure 9: Hopper Car Shipments – Grain-Dependent Originations

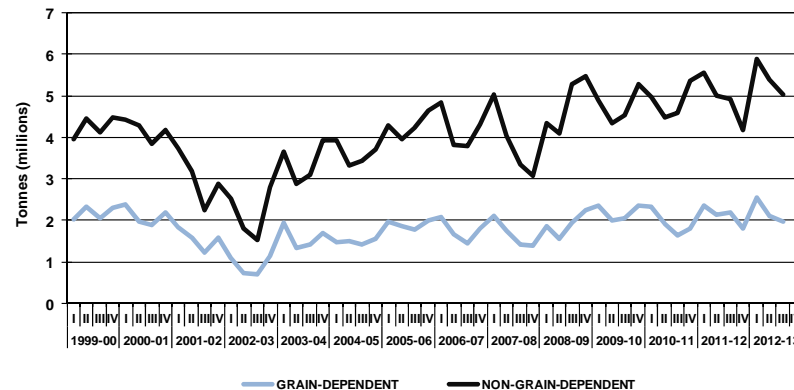
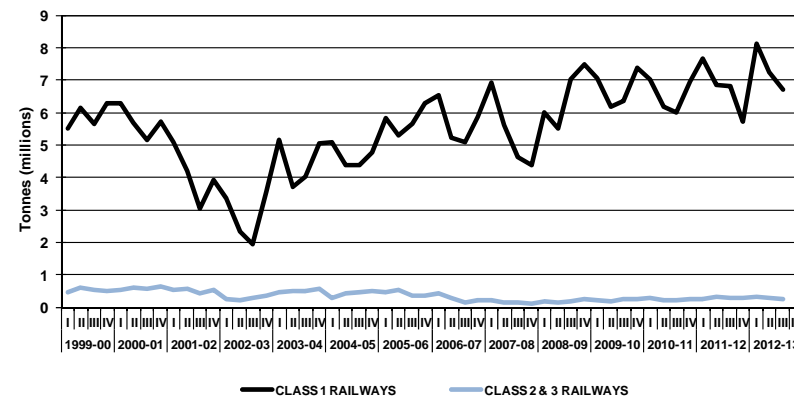


Figure 10: Hopper Car Shipments – Carrier Originations



As these results suggest, the non-grain-dependent network continues to garner a larger share of the overall traffic volume. In the first nine months of the 2012-13 crop year, 71.1% of all the grain originated in western Canada was forwarded from points on the non-grain-dependent network. This value stands noticeably 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 28.9% 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 3.5% in the first nine months of the 2012-13 crop year, to 22.1 million tonnes from 21.3 million tonnes. At the same time, the tonnage originated by non-Class-1 carriers fell by 2.2%, to 827,500 tonnes from 846,500 tonnes. However, it should be noted that even with the establishment of two new shortline railways in the first quarter, the Lake Line Railway and the Long Creek Railroad, a sharp decrease in producer-car loadings during both the second and third quarters effectively reversed the first-quarter gain that had been made by these smaller carriers.

Despite the recent emergence of several new shortline railways, the traffic originated by non-Class-1 carriers has declined fairly significantly over the course of the GMP. In the first nine months of the 2012-13 crop year their share of total originations amounted to just 3.6%, 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. This is because increased producer-car loading helped to replace a significant portion of the traffic that had been lost following the closure of these elevators. And while producer-car loading accounted for as much as two-thirds of their total grain shipments in recent years, that proportion slipped noticeably in the

second and third quarters of the 2012-13 crop year, falling to slightly less than half of the volume originated. While this was still more than three times the share garnered in the first year of the GMP, the decline in producer-car shipments may well signal a weakening of their competitive position in an evolving open-market environment.

### 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 21.0 million tonnes in the first nine months of the 2012-13 crop year. This denoted a new volume record for the period under the GMP, surpassing the former record of 20.7 million tonnes set just a year earlier by 1.7%. [Table 2C-1]

The result was driven by increased throughputs at the west-coast ports of Vancouver and Prince Rupert. For the largest of these, Vancouver, total marine shipments increased by 4.0%, to 12.4 million tonnes from 12.0 million tonnes a year earlier. This represented more than half, 59.1%, of the GHTS's total throughput. Complementing this was Prince Rupert, which reported a somewhat lesser expansion, with shipments rising by 3.0%, to 3.9 million tonnes from 3.8 million tonnes. In combination, the tonnage passing through these two ports represented 77.6% of the system's overall total, a gain over the 76.1% share they garnered in the same period of the previous crop year.

The gain made by the west coast ports was reflected in a loss for the GHTS's other two ports. The combined share secured by the ports of Thunder Bay and Churchill in the first nine months of the 2012-13 crop year fell to 22.4% from 23.9% a year earlier. Thunder Bay saw a modest reduction in volume, with throughput falling by 3.1%, to just under 4.3 million tonnes from 4.4 million tonnes. With throughput declining for a second consecutive year, Churchill fared somewhat worse. Shipments through the port fell by 18.0%, to 422,600 tonnes from 515,100 tonnes a year earlier, and a low not seen in seven years.

### Terminal Elevator Unloads

Despite a 9.8% decline in third-quarter handlings, the number of covered hopper cars unloaded at terminal elevators in the first nine months of the 2012-13 crop year increased by 1.9%, rising to 240,327 cars from 235,794 cars a year earlier. Sustained by the gains made in the first and second quarters, the number of cars unloaded by the Canadian National Railway (CN) rose by 4.2%, to 125,045 cars from 120,034 cars a year earlier. In comparison, the Canadian Pacific Railway's (CP) handlings fell by 0.4%, falling to 115,282 cars from 115,760 cars. As a result, CN was the largest grain handling railway in western Canada, with a share of 52.0% against 48.0% for CP.

Much of the overall increase in volume was centred on the west coast ports of Vancouver and Prince Rupert. Traffic destined to Vancouver rose by 3.7%, with 140,681 cars unloaded versus 135,675 cars a year earlier. Of particular interest was the relative division between CN and CP, with the former carrier's handlings into the port rising by 7.9% against just 0.8% for CP. Prince Rupert's handlings grew by a slightly greater 4.4%, rising to 44,563 cars from 42,675 cars a year earlier.

Even with a comparatively strong first-quarter showing, reduced third-quarter volumes resulted in an overall decline in traffic destined to Thunder Bay, with year-to-date handlings for the period falling by 3.6%, to 50,033 cars from 51,900 cars a year earlier. This decline was largely shaped by an 11.5% reduction in CN's handlings at the port, which unloaded 16,351 cars against 18,471 cars the year previous. For CP, the impact arising from a 25.0% decline in third-quarter handlings did not prove as severe, with total shipments through the first nine months of the crop year rising by 0.8%, to 33,682 cars from 33,429 cars. Adding to this reduction in eastbound shipments was an 8.9% decline in volume for Churchill, where handlings fell to 5,050 cars from 5,544 cars a year earlier. [Table 2C-2]

Figure 11: Terminal Elevator Throughput

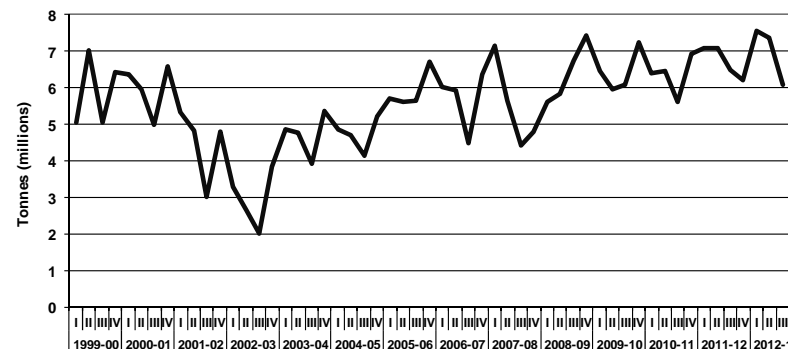
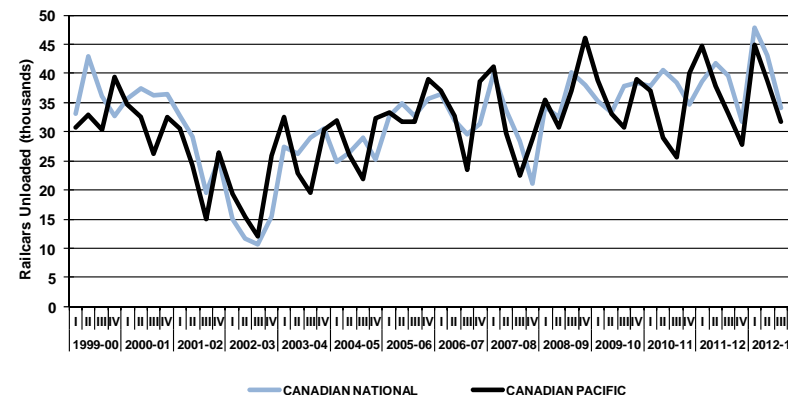


Figure 12: Terminal Elevator Unloads - Delivering Carrier



## Section 3: Infrastructure

Indicator Description	Table	2012-13								
		1999-00	2010 -11	2011-12	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Infrastructure</b>										
Delivery Points (number)	3A-1	626	273	271	272	272	272	-	272	0.4%
Elevator Capacity (000 tonnes)	3A-1	7,443.9	6,369.4	6,739.7	6,772.7	6,772.7	6,772.7	-	6,772.7	0.5%
Elevators (number) - Province	3A-1	917	366	386	387	387	387	-	387	0.3%
Elevators (number) - Railway Class	3A-2									
Elevators (number) - Grain Company	3A-3									
Elevators Capable of MCB Loading (number) - Province	3A-4	317	241	246	246	246	246	-	246	0.0%
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	13	39	1	1	1	-	1	-97.4%
Elevator Openings (number)	3A-8	43	13	59	2	2	2	-	2	-96.6%
Delivery Points (number) - Accounting for 80% of Deliveries	3A-9	217	85	82	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	17,830.3	17,830.3	17,616.3	17,600.2	17,600.2	-	17,600.2	-1.3%
Railway Infrastructure (route-miles) - Class 1 Network	3B-1	14,503.0	15,249.5	15,029.0	14,923.4	14,907.3	14,907.3	-	14,907.3	-0.8%
Railway Infrastructure (route-miles) - Non-Class-1 Network	3B-1	4,887.1	2,580.8	2,801.3	2,692.9	2,692.9	2,692.9	-	2,692.9	-3.9%
Railway Infrastructure (route-miles) - Non-Grain-Dependent Network	3B-1	14,513.5	14,245.1	14,245.1	14,151.7	14,135.6	14,135.6	-	14,135.6	-0.8%
Railway Infrastructure (route-miles) - Grain-Dependent Network	3B-1	4,876.6	3,585.2	3,585.2	3,464.6	3,464.6	3,464.6	-	3,464.6	-3.4%
Served Elevators (number)	3B-3	884	349	358	358	358	358	-	358	0.0%
Served Elevators (number) - Class 1 Carriers	3B-3	797	320	334	334	334	334	-	334	0.0%
Served Elevators (number) - Non-Class-1 Carriers	3B-3	87	29	24	24	24	24	-	24	0.0%
Served Elevators (number) - Grain-Dependent Network	3B-3	371	117	115	114	114	114	-	114	-0.9%
Served Elevators (number) - Non-Grain-Dependent Network	3B-3	513	232	243	244	244	244	-	244	0.4%
Served Elevator Capacity (000 tonnes)	3B-3	7,323.0	6,290.7	6,602.4	6,625.3	6,625.3	6,625.3	-	6,625.3	3.5%
Served Elevator Capacity (000 tonnes) - Class 1 Carriers	3B-3	6,823.2	6,119.0	6,428.0	6,443.8	6,443.8	6,443.8	-	6,443.8	2.5%
Served Elevator Capacity (000 tonnes) - Non-Class-1 Carriers	3B-3	499.7	171.7	174.4	181.6	181.6	181.6	-	181.6	4.1%
Served Elevator Capacity (000 tonnes) - Grain-Dependent Network	3B-3	2,475.4	1,755.6	1,868.2	1,863.3	1,863.3	1,863.3	-	1,863.3	-0.3%
Served Elevator Capacity (000 tonnes) - Non-Grain-Dependent Network	3B-3	4,847.6	4,535.1	4,734.2	4,762.0	4,762.0	4,762.0	-	4,762.0	5.9%
<b>Terminal Elevator Infrastructure</b>										
Terminal Elevators (number)	3C-1	15	15	16	16	16	16	-	16	0.0%
Terminal Elevator Storage Capacity (000 tonnes)	3C-1	2,678.6	2,475.6	2,213.8	2,213.8	2,213.8	2,213.8	-	2,213.8	0.0%



### COUNTRY ELEVATOR INFRASTRUCTURE

At the outset of the 1999-2000 crop year, there were 1,004 licensed primary and process elevators on the prairies. By the end of the 2011-12 crop year, that number had fallen by 61.6% to 386, making this decline one of the most visible facets of the changes brought to the GHTS since the beginning of the GMP.<sup>6</sup> [Table 3A-1]

The first nine months of the 2012-13 crop year saw little meaningful change, with the elevator network increasing by one as a result of the opening of a new 43,000-tonne Paterson Grain facility at Long Plain, Alberta. This raised the total number of elevators in western Canada to 387, and reduced the accumulated loss since the beginning of the GMP to 617 facilities, or 61.5%. The marginal scope of the changes witnessed over the course of the last several years continues to suggest that grain-elevator rationalization has largely concluded, and that the network's overall size has largely stabilized.

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 2011-12 crop year the scope of this network had been reduced by 60.4%, to 271 delivery points from the 685 that had been in place at the beginning of the GMP. This count increased marginally in the first nine months of the 2012-13 crop year, with the overall number rising by one to 272. This served to trim the net reduction in delivery points during the GMP to 60.3%.

#### Provincial Distribution

At the close of the third quarter, 197 of western Canada's licensed elevators were situated in Saskatchewan. These facilities constituted 50.9% 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

<sup>6</sup> The reduction in licensed elevators cited here reflects the net change arising from elevator openings and closures over a given period.

Figure 13: Licensed Grain Elevators and Delivery Points

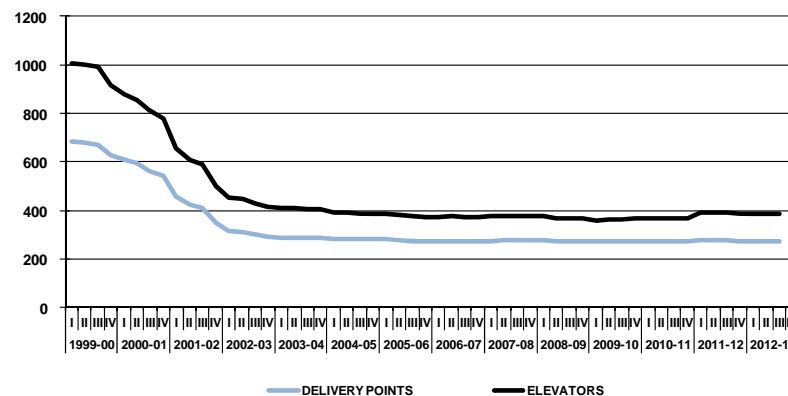
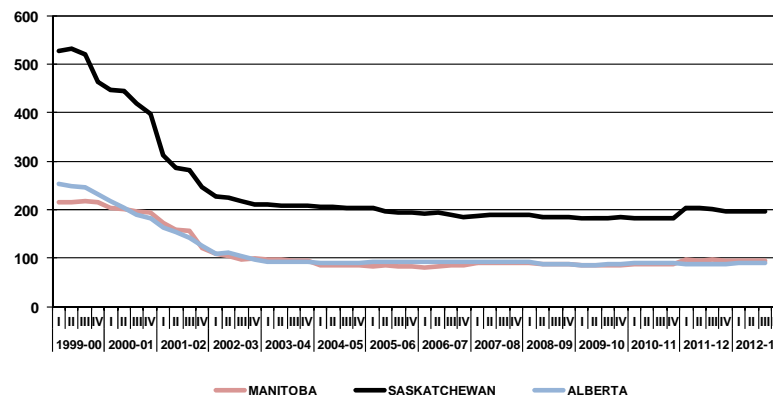


Figure 14: Licensed Grain Elevators - Provincial Distribution



Alberta, whose corresponding 95 and 89 elevators accounted for shares of 24.5% and 23.0% 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 163-elevator reduction in Alberta represented a slightly greater 64.7%. 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 61.5% decline in the overall number of elevators, the network's storage capacity stands only 3.6% 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 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 2011-12 crop year, it had risen to slightly more than 6.7 million tonnes. The first nine months of the 2012-13 crop year saw another 33,000 tonnes of storage capacity added to the system. This modest 0.5% gain effectively raised total storage capacity to slightly under 6.8 million tonnes, a value not seen since the close of the 2000-01 crop year.

Figure 15: Change in Licensed Elevators and Storage Capacity

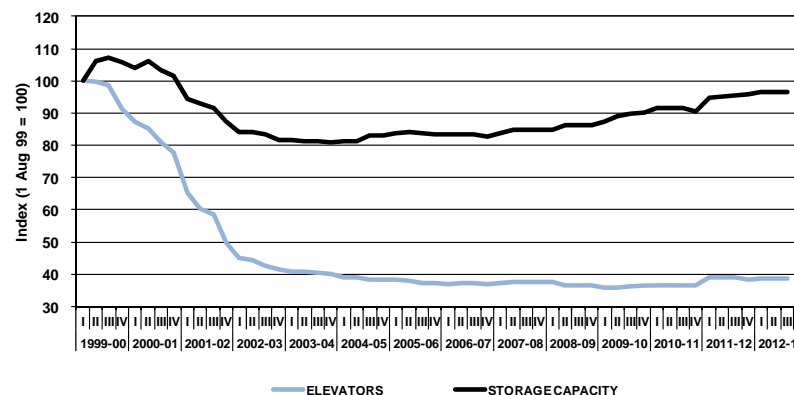
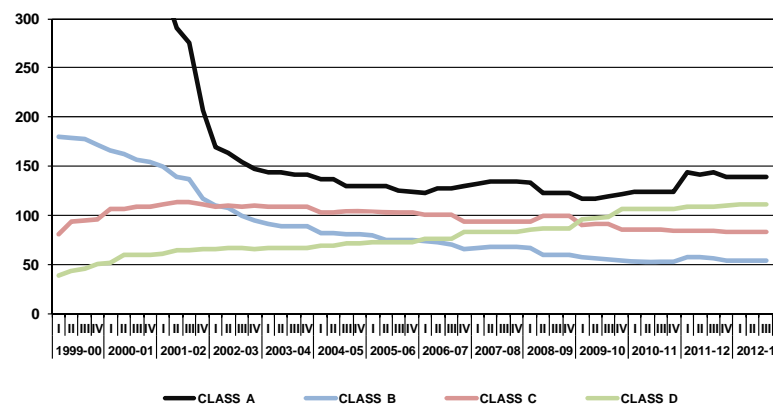


Figure 16: Licensed Elevators - Facility Class



## Facility Class

For comparative purposes, the GMP groups elevators into four classes. These classes are based on the loading capability of each facility, which is in turn defined by the number of 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>7</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 111 from 38.

These statistics illustrate that the prime target in elevator rationalization has been the conventional wood-crib facility. Of the 951 elevators closed since the beginning of the GMP, 724 related to the shutdown of Class A facilities.<sup>8</sup> To a large extent, this was because the economic efficiency of the high-throughput elevator had rendered these facilities obsolete. They had also been undermined by the financial incentives that the railways

<sup>7</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>8</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.

used to encourage grain to move in blocks of 25 or more railcars at a time.

These same forces also disfavoured the Class B facilities, albeit not to the same degree. More particularly, even though grain movements from these facilities were eligible to receive discounted freight rates, they were not as generous as those accorded shipments from high-throughput elevators. These small-block discounts were later reduced and ultimately eliminated.<sup>9</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 92.4% of all recorded elevator closures. [Table 3A-7]

In contrast to their share of closures, 211 of the 334 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, 36.8% versus 7.6% respectively. Class C and D elevators were the only ones to have posted net increases since the 1999-2000 crop year. [Table 3A-8]

Since the close of the 2008-09 crop year, 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 given over to high-throughput facilities remained effectively unchanged in the first nine months of the 2012-13 crop year, with 50.1% of system elevators and 78.9% of its storage capacity, they continued to stand well above their respective base-year values of 11.9% and 39.4%.

<sup>9</sup> With the commencement of the 2003-04 crop year, CN eliminated the \$1.00-per-tonne discount that had been given to movements from Class B facilities since the beginning of the GMP, while CP reduced it to \$0.50 per tonne. By the close of the 2005-06 crop year, CP had also eliminated its discount on movements in blocks of 25-49 cars.

### Grain Companies

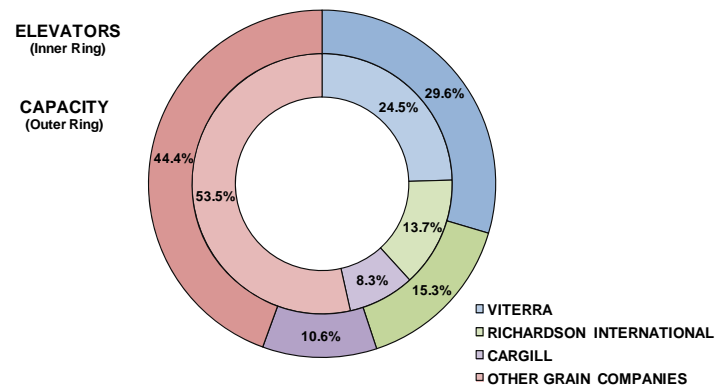
For a number of grain companies, the key to improving the economic efficiency of their grain-gathering networks has been to rationalize their elevator assets. With the cornerstone of this strategy being the replacement of smaller elevators by larger high-throughput facilities, it follows that this would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

The predecessors of today’s Viterra Inc. posted what amounts to the deepest overall reduction, with a net decrease of 605 facilities, or 86.4%, through the close of the first nine months of the 2012-13 crop year.<sup>10</sup> Richardson International and Cargill posted the next deepest cuts, with elevator reductions of 49.5% and 45.8% respectively. This was complemented by Paterson Grain, with a 30.0% decrease, as well as Parrish and Heimbecker, with a reduction of 23.1%. [Table 3A-3]

Elevator closures have abated significantly since the creation of Viterra in 2007. Moreover, the total number of facilities actually began to rise after reaching a GMP low of 360 elevators in the first quarter of the 2009-10 crop year. However, much of the subsequent increase is misleading, since it largely reflects changes in the licensing requirements of the 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.

<sup>10</sup> Viterra Inc. was formed in 2007 following Saskatchewan Wheat Pool’s purchase of Agricore United, which was itself the product of a merger between Agricore Cooperative Ltd. and United Grain Growers Limited in 2001. Given this heritage, Viterra Inc. is the corporate successor to the three largest grain companies in existence at the beginning of the GMP. The 605 closures cited here represent the net reduction posted by Viterra’s predecessor companies, which had a combined total of 700 elevators at the outset of the GMP.

Figure 17: Licensed Elevators and Capacity – Q3 2012-13 Crop Year



The acquisition of Viterra by Glencore International PLC in December 2012 harboured the potential for further changes in elevator ownership. At the heart of this was a pre-acquisition agreement wherein Glencore International agreed to sell Viterra’s interest in 19 country and two terminal elevators to Richardson International. Although such an asset transfer would reduce the size differential between the two largest grain companies in western Canada, it would not meaningfully alter the fact that, along with Cargill, these three entities would still control the bulk of the GHTS’s elevators and storage capacity. Moreover, these companies would still remain the dominant handlers of grain in western Canada, accounting for approximately 75% of the annual export grain movement.

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 2011-12 crop year – the last for which statistics are available – 82 of the GHTS’s 222 active delivery points took in 80% of the grain delivered. Although this 36.9% share is marginally 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

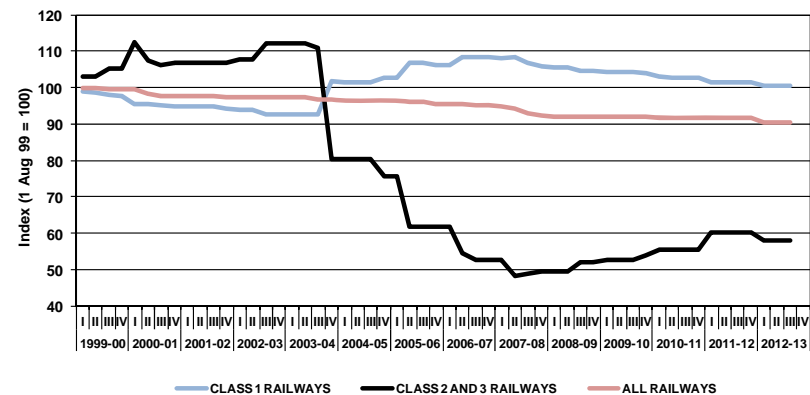
At the outset of the 1999-2000 crop year, the railway network in western Canada encompassed 19,468.2 route-miles of track. Of this, Class 1 carriers operated 76.2%, or 14,827.9 route-miles, while the smaller Class 2 and 3 carriers operated the remaining 23.8%, or 4,640.3 route-miles.<sup>11</sup> Although the railway network has contracted, the reduction has proven substantially less than that of the elevator system it serves. By the end of the 2011-12 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>12</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.

11 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.

12 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.

Figure 18: Change in Route-Miles - Railway Class



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>13</sup> By the close of the 2011-12 crop year, the network operated by the Class 1 carriers had actually increased 1.4%, to 15,029.0 route-miles, whereas that of the Class 2 and 3 carriers had declined by 39.6%, to 2,801.3 route miles.

Still, many of these shortlines had been established with an eye towards preserving railway service on what the Class 1 carriers had come to

13 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.

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>14</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 2011-12 crop year, another seven shortline railways had been established across the prairies.<sup>15</sup> Five of these were based in Saskatchewan, where the provincial government proved more receptive to providing financial assistance.<sup>16</sup>

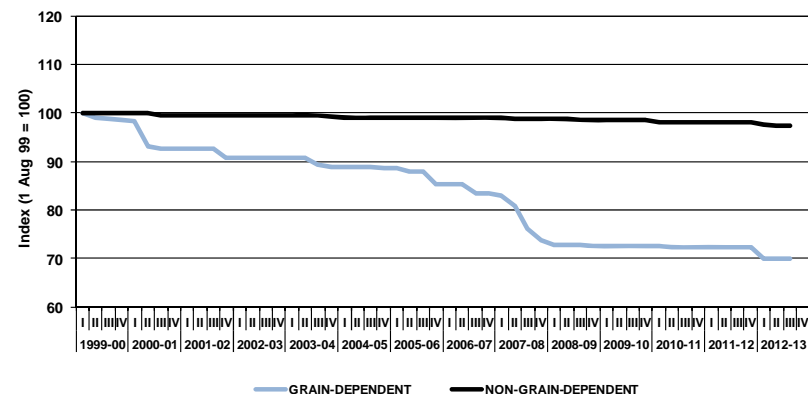
Although the creation of these new entities had a comparatively modest impact on the division between Class 1 and non-Class-1 infrastructure,

14 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.

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

16 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 19: Change in Route-Miles – Railway Network



the prairie shortline system was again expanding. At the close of the 2011-12 crop year, the shortline network had increased by a factor of 60%, to encompass 1,606.1 route-miles of track under the management of 15 separate carriers.

The 2012-13 crop year brought still other examples of this expansion with the formation of two new shortlines in the first quarter: the Lake Line Railroad (LLR) and the Long Creek Railroad (LCR). The LLR assumed operation of 41.0-route-miles of former CP track in Manitoba.<sup>17</sup> The LCR also took over the operation of a long-dormant section of CP track situated in southern Saskatchewan at about the same time.<sup>18</sup> As with

17 The Lake Line Railroad initially assumed operation of CP's Winnipeg Beach Subdivision, a 31.9-route-mile section of track extending from Selkirk to Gimli. Another 9.1 route-miles was added when the carrier assumed operation of CP's Lac du Bonnet Subdivision, which extends from Beausejour to Molson.

18 The Long Creek Railroad assumed operation of CP's Bromhead Subdivision, a 42.0-route-mile section of track extending from Estevan to Tribune, and which had been lying dormant since about 2005.

many of the shortlines created before it, the establishment of these railways represented yet other steps in the broader effort to preserve local railway service.

Even so, the first nine months of the 2012-13 crop year saw the discontinuance of another 230.1 route-miles of railway infrastructure. The vast majority of this, encompassing some 191.4 route-miles, was situated in northwestern Saskatchewan and had been sold by CN to the Carlton Trail Railway (CTR) in 1997.<sup>19</sup> Declining traffic volumes in the face of mounting maintenance costs had led the CTR to suspend service on these lines in 2009. Following their subsequently listing as discontinuance candidates, local interests tried to put forward a purchase offer but ultimately were unable to come to terms with the carrier. With the collapse of a negotiated sale, the CTR moved to finalize the abandonment of these lines altogether. This action was coupled with CN's decision to abandon its connecting 22.6-route-mile section of the Blaine Lake Subdivision at the same time, thereby raising the first-quarter reduction to 214.0 route-miles.

The second quarter brought a much smaller loss, with the discontinuance of 16.1 route-miles of CP infrastructure in British Columbia. This section constituted about one-third of the carrier's 46.3-route-mile Okanagan Subdivision, which CP had leased to the Okanagan Valley Railway (OVR) in late 1998.<sup>20</sup> However, erosion of the OVR's traffic base led to cessation of operations in 2009, with the line subsequently returned to CP control.

19 The infrastructure cited here as having been operated by the Carlton Trail Railway included a 93.4-route-mile section of CN's former Meadow Lake Subdivision; a 31.5-route-mile section of its Big River Subdivision; and a 66.5-route-mile section of its Blaine Lake Subdivision. Traffic originating and terminating on this western branch of the CTR's operations was exchanged with CN, which still retained ownership of the last 22.6-route-mile section of the Blaine Lake Subdivision, at Speers Junction.

20 CP's Okanagan Subdivision encompassed 46.3 route-miles of track between Sicamous and Vernon. The northern section, with 31.6 route-miles between Sicamous and Armstrong, was operated solely by the Okanagan Valley Railway (OVR). While the southern section, with 14.7 route-miles between Armstrong and Vernon, was operated jointly by the OVR and the Kelowna Pacific Railway.

Figure 20: Change in Local Elevators - Railway Class

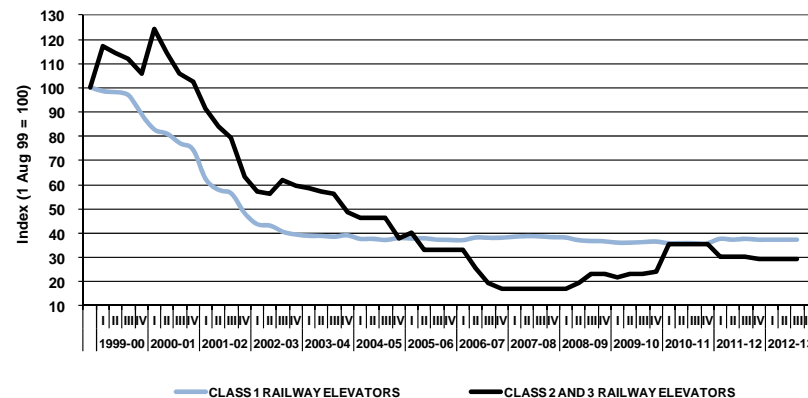
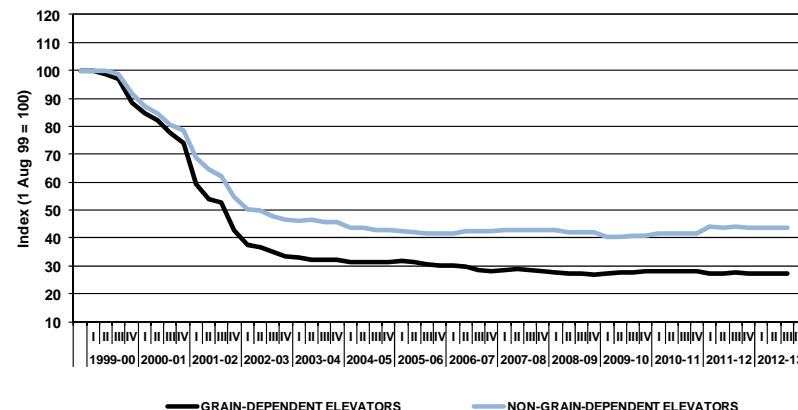


Figure 21: Change in Local Elevators - Railway Network



With the northern section between Sicamous and Armstrong rendered dormant, CP moved to discontinue operations, ultimately abandoning the northernmost section between Sicamous and Grindrod in November 2012.

By the close of the third quarter these discontinuances had effectively reduced the span of the railway network in western Canada by another 1.3%, to 17,600.2 route-miles. Combined with transferences to new shortline carriers, this resulted in the number of route-miles accorded to the Class 1 railways being reduced by another 0.8%, to 14,907.3 route-miles from 15,029.0 route-miles. Similarly, the infrastructure tied to non-Class-1-carrier operations decreased by 3.9%, to 2,692.9 route-miles from 2,801.3 route-miles.

### Local Elevators

As previously outlined, the GHTS's elevator infrastructure has been transformed more substantively over the course of the last thirteen 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>21</sup>

These reductions have manifest themselves in noticeably different ways for the Class 1 and non-Class 1 railways. Although the relative number of elevators served by both carrier groups had fallen by analogous amounts through to the end of the third quarter, 62.8% in the case of the former and 70.7% in the case of the latter, there was a more pronounced decline in the associated storage capacity. For elevators local to Class 1 carriers, this amounted to a reduction of just 0.4%, whereas for those tied to the non-Class 1 carriers the reduction was a much steeper 63.5%. [Table 3B-3]

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>22</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 72.9% since the beginning of the GMP, to 114 from 420. For those situated along the non-grain-dependent network, the decline was 56.4%, with the number of elevators having fallen to 244 from 559. The change in associated storage capacity shows an even greater contrast, with that of the grain-dependent network falling by 25.1%, to 1.9 million tonnes, while that of the non-grain-dependent network actually increased by 7.1%, to almost 4.8 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

With no change to the makeup of the terminal elevator network in the first nine months of the 2012-13 crop year, it remained comprised of 16 licensed terminal elevators with an associated storage capacity of 2.2 million tonnes. These values differ somewhat from the 14 elevators and 2.6 million tonnes of storage benchmarked in the GMP's base year.<sup>23</sup> [Table 3C-1]

<sup>22</sup> As at 30 April 2013 there were 193 high-throughput elevators served by rail. Of these, 185 were served by CN and CP, with only eight being served by shortlines.

<sup>23</sup> Beyond the changes in its physical scope, there were also some significant changes in the ownership of these terminal elevators. Much of this stemmed from the various corporate mergers and acquisitions that have taken place since the beginning of the GMP. The most noteworthy of those involving a transfer of terminal ownership came out of the merger of Agricore Cooperative Ltd. and United Grain Growers Limited, which combined to form Agricore United in 2001. This entity was subsequently bought out by Saskatchewan Wheat Pool in 2007, with the company rebranded as Viterra Inc. In December 2012 Viterra itself was itself taken over by Glencore International PLC.

<sup>21</sup> The reductions cited here relate only to the facilities directly served by rail.

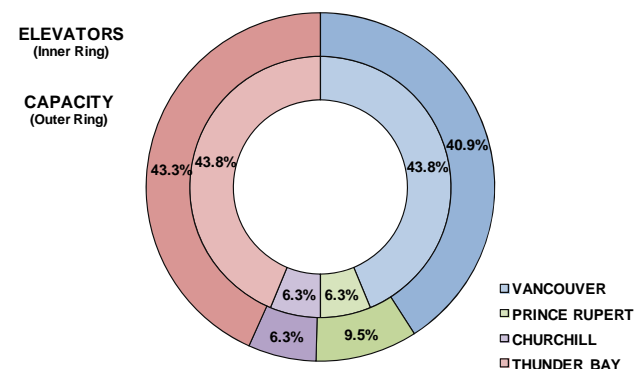


While Thunder Bay continues to account for the majority of the GHTS's terminal-elevator assets, a decade's worth of incremental change has served to erode its position. Although unchanged in the first nine months of the 2012-13 crop year, Thunder Bay claimed 43.8% of the system's elevators and 43.3% of its licensed storage capacity; both reduced from the 50.0% shares noted thirteen years before.

A portion of Thunder Bay's relative loss came from the expansion of terminal operations in the greater Vancouver area. As a result, Vancouver now accounts for 43.8% of the system's terminal elevators and 40.9% of its licensed storage capacity. These values mark significant gains over their corresponding base-year benchmarks of 35.7% and 36.3%.

While neither Prince Rupert nor Churchill saw changes to their terminal assets during this same period, both gained relatively higher standing as a result of the evolution at Thunder Bay and Vancouver. Both still registered one terminal elevator apiece, and storage capacity shares of 9.5% and 6.3% respectively.

Figure 22: Terminal Elevators – Q3 2012-13 Crop Year



## Section 4: Commercial Relations

Indicator Description	Table	2012-13								
		1999-00	2010-11	2011-12	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Trucking Rates</b>										
Composite Freight Rate Index - Short-haul Trucking	4A-1	100.0	162.2	162.2	162.2	162.2	162.2	-	162.2	0.0%
<b>Country Elevators Handling Charges</b>										
Composite Rate Index - Receiving, Elevating and Loading Out	4B-1	100.0	122.8	122.9	123.1	123.3	123.5	-	123.5	0.4%
Composite Rate Index - Dockage	4B-1	100.0	151.7	154.1	154.1	154.1	154.2	-	154.2	0.1%
Composite Rate Index - Storage	4B-1	100.0	184.8	187.8	187.8	189.9	189.9	-	189.9	1.1%
<b>Railway Freight Rates</b>										
Composite Freight Rate Index - CN Vancouver	4C-1	100.0	104.8	112.4	124.7	128.4	129.9	-	129.9	15.6%
Composite Freight Rate Index - CP Vancouver	4C-1	100.0	112.8	114.8	129.8	132.5	134.9	-	134.9	17.5%
Composite Freight Rate Index - CN Thunder Bay	4C-1	100.0	120.2	136.0	134.5	129.4	138.6	-	138.6	1.9%
Composite Freight Rate Index - CP Thunder Bay	4C-1	100.0	117.4	123.5	135.2	135.3	137.1	-	137.1	11.0%
Effective Freight Rates (\$ per tonne) - CTA Revenue Cap	4C-3	n/a	\$30.59	\$31.37	n/a	n/a	n/a	-	n/a	n/a
<b>Terminal Elevator Handling Charges</b>										
Composite Rate Index - Receiving, Elevating and Loading Out	4D-1	100.0	135.2	146.5	145.9	145.9	146.6	-	146.6	0.1%
Composite Rate Index - Storage	4D-1	100.0	146.9	178.7	178.9	179.4	179.4	-	179.4	0.4%

## 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>

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 2010-11 crop year. Although fuel prices remained volatile throughout the ensuing 2011-12 crop year, trucking rates did not waver. Much the same was observed through the first nine months of the 2012-13 crop year, with trucking rates holding fast in the face of undulating fuel and crude oil prices. As a result, the composite price index stood unchanged at 162.2 through the first three quarters of the crop year. [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.

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

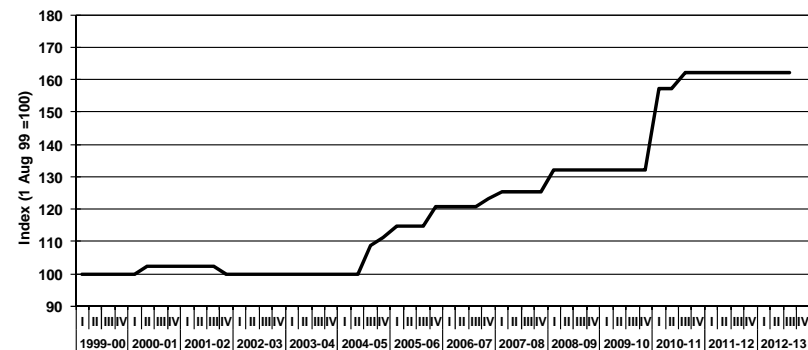
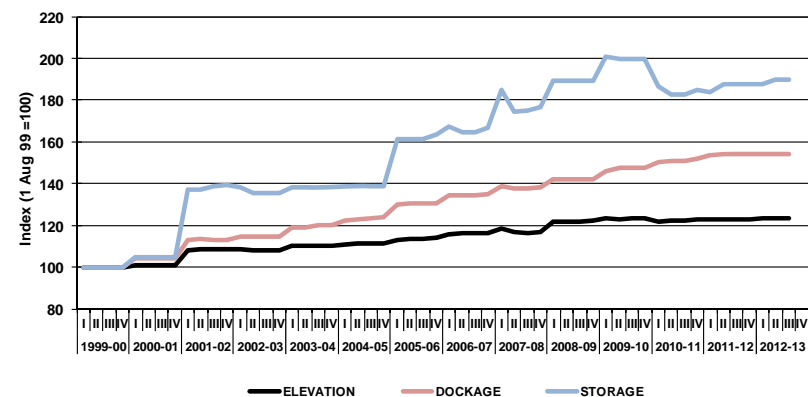


Figure 24: Change in Primary Elevator Handling Charges



<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.

Given the wide variety of tariff rates, the GMP necessarily uses a composite price index to track changes in them. Since the beginning of the GMP, the rates for all of these services have risen considerably. The smallest increases have been in those tied to the receiving, elevating and loading out of grain. Through to the end of the 2011-12 crop year, these costs had risen by 22.9%. The first nine months of the 2012-13 crop year brought little change to these rates, with the overall composite price index rising by just 0.4%, to 123.5.

The rates associated with the removal of dockage have increased at a somewhat faster pace. Through to the end of the 2011-12 crop year, these rates had already increased by 54.1%. With only minor variations in the third quarter, the composite price index rose by a marginal 0.1%, to 154.2.

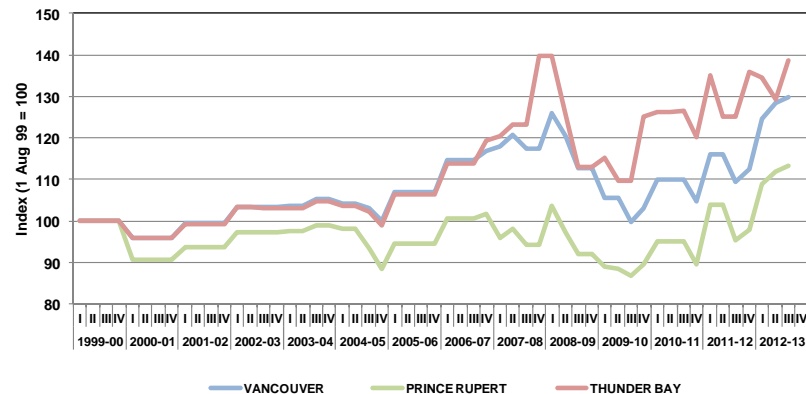
The most substantive rate escalations observed thus far have related to elevator storage. Much of the initial price shock came towards the end of the 2000-01 crop year, when these rates were raised by a factor of almost one-third. Since then they have continued to climb, rising by 87.8% through to the end of the 2011-12 crop year.<sup>25</sup> Modest rate escalations in the second quarter served to raise the composite price index a further 1.1%, to 189.9. [Table 4B-1]

### RAILWAY FREIGHT RATES

The single-car freight rates charged 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

<sup>25</sup> 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 25: 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.

In the wake of the Canadian Transportation Agency's decision to raise the Volume-Related Composite Price Index by 9.5%, both CN and CP moved to increase their single-car freight rates rather substantially during the first

nine months of the 2012-13 crop year.<sup>26</sup> The initial pricing actions taken by CN came rather late in the first quarter, with escalations on its westbound rates into Vancouver and Prince Rupert averaging 10.9% and 11.1% respectively. This was coupled with selective decreases on the carrier's single-car rates into Thunder Bay and Churchill, which produced average reductions of 1.1% and 1.5% respectively.<sup>27</sup> In comparison, CP increased its single-car rates at the beginning of the crop year, with the average escalation on movements into Vancouver and Thunder Bay amounting to 13.1% and 9.5% respectively.

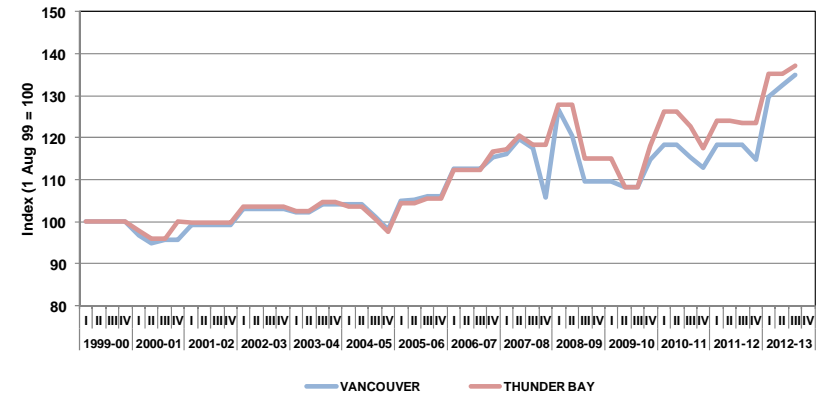
The second quarter saw CN bring increases of about 3.0% on movements into both Vancouver and Prince Rupert along with a further 3.8% cut on its rates into Thunder Bay. The third quarter brought yet additional increases, with the rates on westbound movements into Vancouver and Prince Rupert rising by another 1.2% while a more substantive 7.1% increase was affixed against those into Thunder Bay. The single-car rates applicable on movements into Churchill were also increased during this period, rising by an average of 3.0%. The year-to-date impact of these pricing actions was to produce net rate increases of 15.6% in the carrier's principle westbound corridors against a much lesser 1.9% increase on its eastbound shipments into Thunder Bay.

CP followed suit with somewhat similar increases in the Vancouver corridor during the second and third quarters, escalating its single-car rates by an average of 2.1% and 1.8% respectively. However, its single-car rates into Thunder Bay were held largely unchanged into the third quarter, when these too were increased by an average of 1.3%. The compound effect of these pricing actions over the preceding nine months saw CP's westbound rates raised by 17.5% and its eastbound rates by a somewhat lesser 11.0%.

<sup>26</sup> See Canadian Transportation Decision Number 149-R-2012 dated 30 April 2012.

<sup>27</sup> CN's single-car rates to Churchill are published in accordance with the port's shipping season. The 1.5% reduction cited here relates to the rates that were in place at the close of the 2011-12 crop year.

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



An examination of the pricing changes enacted since the beginning of the GMP provides some insight into the evolution of today's single-car freight rates. With the close of the third quarter, the single-car rates applicable on the movement of grain to the jointly served ports of Vancouver and Thunder Bay have increased by moderately different amounts: 32.4% and 37.9% respectively. The overall gain for Churchill marginally exceeded that of Thunder Bay, with an increase of 38.7%. However, Prince Rupert, which benefited from a change to the rate structure more than a decade ago, posted an overall increase of just 13.2%.

Taken altogether, these increases reflect the 29.0% escalation in revenues allowed by the Canadian Transportation Agency since the Revenue Cap came into effect thirteen years earlier. Moreover, they also suggest that the railways are more favourably disposed towards the handling of westbound grain, and continue 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.

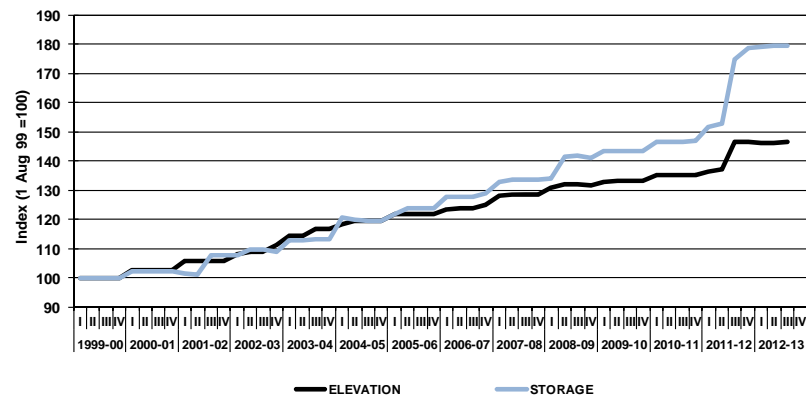
These freight discounts remained unchanged in the first nine months of the 2012-13 crop year. CN continued to offer discounts on movements in blocks of 50-99 cars that equated to \$4.00 per tonne, and to \$8.00 per tonne on movements of 100 or more cars. The corresponding discounts for CP remained at \$4.00 per tonne for shipments in blocks of 56-111 cars, and at \$8.00 per tonne for shipments in blocks of 112 cars. [Table 4C-2]

### TERMINAL ELEVATOR HANDLING CHARGES

The rates posted 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 2011-12 crop year these ranged from a low of about \$9.77 per tonne on wheat delivered at Vancouver, to a high of \$16.50 per tonne on oats shipped to Churchill.

A number of adjustments to these rates were noted during the first nine months of the 2012-13 crop year. For Vancouver, these ranged from a 3.5% reduction on barley to increases of 0.7% on wheat and durum. The story was much the same at Prince Rupert, where a rate reduction of 13.3% on canola stood against a 4.0% increase on wheat and durum. In

Figure 27: Change in Terminal Elevator Handling Charges



comparison, the reductions posted by Thunder Bay appeared more modest, ranging from a 2.7% cut back on barley to a 0.2% trim on wheat and durum. Only the terminal elevator at Churchill reported a significant escalation in its tariff rates, raising those applicable on wheat and durum by 17.1% in the third quarter. Given the previous shipping season's 26.9% escalation, this meant that Churchill's tariff rate had risen by a factor of 48.5% - from \$8.08 per tonne to \$12.00 per tonne - in the span of just twelve months. Despite such irregularities, these various pricing actions served to raise the composite price index by only 0.1%, to 146.6 from 146.5. [Table 4D-1]

As with the cost of elevation, the daily charge for storage also varied widely, ranging from a common low of about \$0.08 per tonne on most wheat held at port to a high of \$0.16 per tonne on oats maintained in inventory at Churchill. Here again, rate adjustments in the first nine months of the 2012-13 crop year proved comparatively modest. Prince Rupert posted the largest increase, with the overall average rising by 3.1%. This was followed by Vancouver with an average increase of 1.6%,

while Churchill posted no changes at all. Running counter to all of this was Thunder Bay, which owing to reductions in the rates for wheat, barley and oats saw its overall average decline by 1.2%. Together, these actions served to raise the composite price index on storage by 0.4% during the first nine months of the crop year, to 179.4 from 178.7.

## COMMERCIAL DEVELOPMENTS

### Repeal of CWB Monopoly Heralds New Era of Marketing Freedom

Following passage of *The Marketing Freedom for Grain Farmers Act* in December 2011, the Canadian Wheat Board (CWB) lost its long-held monopoly over the sale of western Canadian wheat and barley with the commencement of the 2012-13 crop year. This meant that producers were no longer obligated to sell wheat and barley intended for export or domestic human consumption solely to the CWB. In fact, the right to forward contract for the delivery of their grain, on or after 1 August 2012, to any grain company a producer chose had already been in place since the Act received Royal Assent.

Repeal of the CWB's monopoly marked the most significant change to the functioning of the GHTS in three generations. Although the Act 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, pockets of opposition still remained within the producer community.<sup>28</sup> Nevertheless, many in the grain industry had long argued for this change and had been preparing for open-market operations since the federal government announced its plans to introduce the enabling legislation.

By most standards, this transition to open-market operations appeared largely problem free. The new marketing environment also brought

<sup>28</sup> Opposition to the government's actions was not only manifest in producer sentiment, but in the launching of various legal challenges as well. Although a class action suit against the federal government remained, by the close of the third quarter all other challenges had failed.

increased competition between grain companies, with price often being the key consideration in the producers' delivery choice. Much of this was visible in their response to the merchandizing efforts of the grain companies themselves, which were actively pursuing farmer deliveries. The new environment appeared to have given farmers better flexibility in terms of grades, delivery options and predictable cash flow.

In comparison to the grain companies, the revamped CWB appeared to face a number of transitional challenges. Since it possessed no grain-handling assets of its own, the CWB signed a variety of agreements with individual grain companies that would see these firms handling grain on its behalf.<sup>29</sup> Although the details surrounding these agreements remain confidential, producers who contract with the CWB are not locked into delivering their grain to a specific location or grain company.<sup>30</sup> Rather, they retain the right to seek the best options open to them for trucking, elevator handling and freight. In addition, the CWB no longer issues delivery calls, with the grain companies now obligated to provide producers with practical delivery opportunities in accordance with their handling agreements. Even so, there were reported instances where elevator managers were reluctant to accept farmer deliveries on behalf of the CWB without a clear plan for outward shipping.

Concerns that Canada's grain pipeline would struggle in the wake of the ending of the CWB's monopoly subsided fairly quickly in the opening months of the 2012-13 crop year as the GHTS moved record or near-

<sup>29</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>30</sup> In accordance with the Act, the CWB is now able to market canola and other commodities, with deliveries accepted at selected locations across the prairies.

record volumes. There can be no doubt that this was, in part, due to almost ideal conditions surrounding a change of this magnitude: an early, dry harvest; good grain yields and consistent quality; higher grain prices in the face of tighter global supplies; and ocean freight rates at near record low levels. Still, the arrival of winter brought its share of operational challenges, including the typical tightening of railway carrying capacity. Delays in fulfilling empty railcar orders at country elevators were symptomatic of other issues as well. Not the least of which may have been the heightened competitive environment that shaped the future sales expectations of some grain companies during this period. This may well have led to the speculative chartering of vessels along the west coast, and a resultant buildup in vessels waiting to load.

Such operational shortcomings underscored concerns about the system's ability to accept grain according to pricing signals alone. The early surge in volume again served to highlight the need to balance the influx of grain with the system's available capacity. This was initially reflected in strained storage capacity at country elevators, with farmers unable to deliver all of the grain they may have wanted. This later devolved into problems with moving all the grain on hand as a result of a reduction in railway car supply, and the amassing number of ships waiting for loads at west coast ports.

#### Acquisition of Viterra Inc. Finalized

In March 2012 it was revealed that Viterra Inc. (Viterra), Canada's largest grain company, had agreed to be acquired by Glencore International PLC (Glencore) in an all-cash transaction valued at approximately \$6.1 billion.<sup>31</sup> This marked the first major acquisition within the grain industry since the federal government announced its plan to change the

mandate of the Canadian Wheat Board commencing with the start of the 2012-13 crop year.

Formed through the takeover of Agricare United by Saskatchewan Wheat Pool in 2007, Regina-based Viterra controlled a domestic 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 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.

<sup>31</sup> 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.



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 (CFL) production facility in Medicine Hat, Alberta.<sup>32</sup> 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.

32 Canadian Fertilizer Limited's (CFL) Medicine Hat facility was the largest producer of nitrogen fertilizers in Canada, and jointly owned by Illinois-based CF Industries Holdings Inc. (CF Industries), which held a majority interest, and Viterra Inc., which held a minority interest. The scope of the original asset-sale agreement between Glencore and Agrium was revised in August 2012 when Agrium concurred to a proposed buyout of Viterra's minority interest in CFL by the company's majority shareholder, CF industries. This transaction, valued at \$915 million, was finalized on 30 April 2013 and made CF Industries the sole owner of CFL.

By the close of the 2011-12 crop year, however, China's Ministry of Commerce had still not weighed in with its regulatory approval. In the absence of this last regulatory requirement, the transaction could not be closed in advance of the 2012-13 crop year as initially hoped. Ultimately, China's approval did not come for another five months. When it did, Glencore moved quickly to complete the transaction, finalizing its acquisition of Viterra on 18 December 2012.<sup>33</sup>

Concurrent with this, the Competition Bureau gave its approval to the planned sale of over \$800 million in Viterra's existing grain-handling assets to Richardson International. Although not concluded by the end of the third quarter, the sale was expected to be finalized before the close of the 2012-13 crop year. This was not, however, the case for those assets slated for sale to Agrium, which had yet to receive approval for its pending transaction from the Competition Bureau.

#### Richardson International Plans Expansion of Vancouver Terminal

The 2011-12 crop year saw the first significant changes in the makeup of the terminal elevator network in several years. Although no further changes were reported in the first nine months of the 2012-13 crop year, there were indications that others were pending. The most noteworthy of these involved the planned addition of an 80,000-tonne concrete annex to the Richardson International facility in North Vancouver.

The \$120-million investment, which received a project permit from Port Metro Vancouver in mid April 2013, would increase the facility's storage capacity by 64.8%, to 178,000 tonnes from its current 108,000 tonnes.<sup>34</sup> Already handling some 3 million tonnes of grain and oilseeds annually, this expansion would enable the company to boost its yearly throughput

33 Although the acquisition resulted in Viterra becoming a wholly-owned subsidiary of Glencore, the company continued to operate under the Viterra name.

34 Although its plans call for the construction of an 80,000-tonne annex, the net increase in storage capacity will be a somewhat lesser 70,000 tonnes owing to the elimination of 10,000 tonnes in existing steel-bin storage.

to over 5 million tonnes. This expansion comes on the heels of the \$20-million investment Richardson International already made in the facility's railcar-receiving abilities, which coupled with other improvements, were aimed at doubling its unloading capacity, from 150 cars per day to 300 cars per day.

This expansion also comes atop other anticipated changes in the makeup of Richardson International's terminal-elevator network. Much of this stems from Glencore's takeover of Viterra, which provided for the sale of certain commercial interests and assets to Richardson International. Beyond some 19 primary Viterra elevators situated across the prairies, this included a 25% ownership interest in Viterra's Cascadia Terminal, situated almost directly across the Burrard Inlet from the Richardson International facility, on Vancouver's south shore. The arrangement also entailed the takeover of one of the two Viterra-owned terminal elevators found in Thunder Bay.

Although Richardson International had yet to take formal title of these assets at the close of the third quarter, it was clear that the company would soon have outright ownership of three terminal elevators along with a commercial interest in two others. This expanded presence was widely expected to enhance the company's grain-handling abilities in both the Canadian and international marketplace.

#### **Federal Government Amends the Canada Grain Act**

In October 2012 the federal government moved to implement a number of its budgetary measures with the introduction of Bill C-45, the *Jobs and Growth Act, 2012*, in the House of Commons. The bill, which received Royal Assent on 14 December 2012, also included revisions to the *Canada Grain Act*. These amendments marked the first substantive changes to the Act in more than forty years, and were aimed at modernizing and streamlining the operations of the Canadian Grain Commission (CGC), eliminating any unnecessary or redundant services, and reducing the regulatory burden on the grain industry.

Among the more noteworthy provisions of the legislation was the transfer of responsibility for inward weighing and inspection at terminal elevators from the CGC to the private sector. Even so, shippers, including those farmers choosing to load producer cars, would still have access to CGC-authorized third-party inspectors. At the same time the legislation also affirmed the oversight role of the CGC in the collection of inward weighing and inspection data. Moreover, in the event of a disagreement, shippers would also have the right to appeal the grading and dockage decisions of third-party inspectors to the CGC, which would then render a binding determination.

Similarly, the responsibility for the weighing and inspecting of domestic laker shipments was also to be transferred to the private sector. Other changes included: the elimination of the Grain Appeal Tribunal, along with the registration and cancellation of receipts, and weighovers at local elevators; the combination of existing terminal and transfer elevator licenses into a single terminal elevator class; and the replacement of the current Payment Protection Program with an insurance-based producer payment protection mechanism.

#### **Federal Government Introduces Fair Rail Freight Service Act**

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.

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 that would ultimately lead to legislation giving shippers the right to railway service agreements. These efforts culminated in the introduction of Bill C-52, the *Fair Rail Freight Service Act*, in the House of Commons on 11 December 2012. While broadly aimed at enhancing the effectiveness, efficiency and reliability of railway service, the bill sought to strike a balance between the service needs of shippers and the latitude required by carriers in operating their networks efficiently.

The bill also carries through on a key recommendation made by the Rail Freight Service Review Panel in 2011, which encouraged the use of bilateral service agreements between shippers and railways as an effective mechanism in bringing more clarity, predictability and reliability to rail service. Although most shippers acknowledge that there has been an improvement in rail service since the Review was undertaken, many believed that the bill's legislative provisions did not offer sufficient protections. Notwithstanding these concerns, the bill's primary thrust was directly aimed at incentivizing shippers and railways alike to commercially negotiate their own service agreements.

However, in the event that these negotiations should prove unsuccessful, shippers would have the ability to trigger a fast and efficient arbitration process under the auspices of the Canadian Transportation Agency, which would have the power to define the conditions of service that would apply. Strong enforcement mechanisms could also be employed to hold the railways to account for obligations imposed by an arbitrator, including a monetary penalty of up to \$100,000 for each violation of an arbitrated service level agreement.

By the close of the third quarter Bill C-52 had received second reading in the House of Commons, and was referred to committee for further

consideration. Passage of the bill was not expected much in advance of the approaching 2013-14 crop year.

## Section 5: System Efficiency and Performance

Indicator Description	Table	2012-13								
		1999-00	2010-11	2011-12	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Country Elevator Operations</b>										
Average Elevator Capacity Turnover Ratio	5A-1	4.8	5.7	6.0	1.7	1.5	1.4	-	4.6	-2.1%
Average Weekly Elevator Stock Level (000 tonnes)	5A-2	3,699.3	2,722.9	2,660.8	2,678.3	2,598.0	3,017.8	-	2,762.3	-4.4%
Average Days-in-Store (days)	5A-3	41.7	30.8	27.6	26.0	26.7	30.6	-	27.7	-2.1%
Average Weekly Stock-to-Shipment Ratio - Grain	5A-4	6.2	4.5	4.1	3.6	3.8	4.7	-	4.0	-4.8%
<b>Railway Operations</b>										
Railway Car Cycle (days) - Empty Movement	5B-1	10.7	7.2	7.2	7.5	6.8	7.6	-	7.3	6.0%
Railway Car Cycle (days) - Loaded Movement	5B-1	9.2	7.1	6.7	5.9	7.1	6.8	-	6.6	-2.5%
Railway Car Cycle (days) - Total Movement	5B-1	19.9	14.3	13.9	13.4	13.9	14.4	-	13.8	1.7%
Railway Car Cycle (days) - Non-Special Crops	5B-2	19.3	14.2	13.8	13.2	13.7	14.3	-	13.7	1.7%
Railway Car Cycle (days) - Special Crops	5B-3	25.8	15.3	16.3	15.4	17.0	15.0	-	15.6	-0.6%
Railway Transit Times (days)	5B-4	7.8	6.0	5.6	4.8	6.0	5.7	-	5.5	-2.5%
Hopper Car Grain Volumes (000 tonnes) - Non-Incentive	5B-5	12,718.7	5,500.2	5,427.9	2,112.0	1,464.2	1,456.8	-	5,032.9	22.9%
Hopper Car Grain Volumes (000 tonnes) - Incentive	5B-5	12,945.9	21,596.5	22,725.0	6,321.0	6,030.0	5,521.2	-	17,872.2	-1.1%
Hopper Car Grain Volumes (\$ millions) - Incentive Discount Value	5B-6	\$31.1	\$145.5	\$154.6	\$44.9	\$42.8	\$22.1	-	\$109.9	-11.7%
Traffic Density (tonnes per route mile) - Grain-Dependent Network	5B-7	442.5	534.8	592.1	737.3	611.0	564.4	-	637.5	2.6%
Traffic Density (tonnes per route mile) - Non-Grain-Dependent Network	5B-7	292.5	340.9	345.1	415.4	380.4	355.3	-	383.7	5.9%
Traffic Density (tonnes per route mile) - Total Network	5B-7	330.4	379.9	394.7	478.7	425.8	396.5	-	433.7	4.6%
<b>Terminal Elevator Operations</b>										
Average Terminal Elevator Capacity Turnover Ratio	5C-1	9.1	9.9	11.1	n/a	n/a	n/a	-	n/a	n/a
Average Weekly Terminal Elevator Stock Level (000 tonnes)	5C-2	1,216.2	1,197.8	1,091.6	1,106.5	1,216.9	1,302.6	-	1,205.9	3.1%
Average Days-in-Store - Operating Season (days)	5C-3	18.6	15.5	13.9	14.3	13.3	15.4	-	14.3	0.0%
<b>Port Operations</b>										
Average Vessel Time in Port (days)	5D-1	4.3	9.9	6.6	6.2	11.3	14.3	-	10.3	56.1%
Annual Demurrage Costs (\$millions)	5D-4	\$7.6	\$50.1	n/a	n/a	n/a	n/a	-	n/a	n/a
Annual Dispatch Earnings (\$millions)	5D-4	\$14.5	\$9.4	n/a	n/a	n/a	n/a	-	n/a	n/a
Avg. Weekly Stock-to-Shipment Ratio - VCR - Wheat, Durum and Barley	5D-7	3.5	3.7	3.5	3.5	3.2	4.1	-	3.6	4.2%
Avg. Weekly Stock-to-Shipment Ratio - VCR - Other Grains	5D-7	3.6	1.0	1.7	1.7	2.5	3.4	-	2.5	40.9%
Avg. Weekly Stock-to-Shipment Ratio - TBY - Wheat, Durum and Barley	5D-7	4.6	4.6	3.1	4.9	6.1	4.3	-	5.2	64.8%
Avg. Weekly Stock-to-Shipment Ratio - TBY - Other Grains	5D-7	3.3	5.1	4.5	1.7	4.6	2.3	-	3.3	-24.6%
Terminal Handling Revenue (\$millions)	5D-8	\$274.8	\$416.2	\$458.6	n/a	n/a	n/a	-	n/a	n/a
<b>System Performance</b>										
Total Time in Supply Chain (days)	5E-1	68.1	52.3	47.1	45.1	46.0	51.7	-	47.5	-1.5%

## 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 3.1% decrease in throughput, the turnover ratio for the first nine months of the 2012-13 crop year fell by 2.1%, to 4.6 turns from 4.7 turns a year earlier. [Table 5A-1]

This overall reduction in the turnover ratio was driven by comparatively lower throughputs in Saskatchewan and Alberta, both of which saw sharp volume reductions in the third quarter. Saskatchewan reported the most substantive decline, with its ratio falling by 13.3%, to 3.9 turns from 4.5 turns. This was followed by Alberta, which posted a decrease of 1.5%, with its ratio slipping to 6.5 turns from 6.6 turns a year earlier. Providing some counterweight to this was Manitoba, which saw its ratio rise by 13.3%, to 3.4 from 3.0. Supporting this was British Columbia, which posted a gain of 6.9%, with its turnover ratio increasing to 6.2 from 5.8 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 grain inventories. What is more, with the system's associated storage capacity having contracted by some 6.3%, 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. Primary elevator inventories in the first nine months of the 2012-13 crop year were again reported well beneath this threshold, declining by 4.4%, to 2.8 million tonnes from 2.9 million tonnes. [Table 5A-2]

Figure 28: Primary Elevator Capacity Turnover Ratio

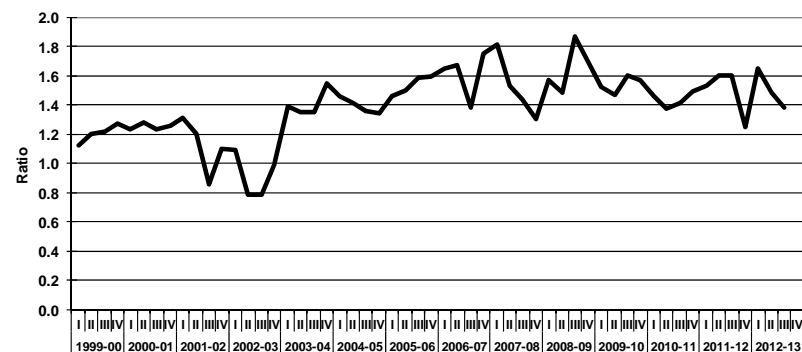
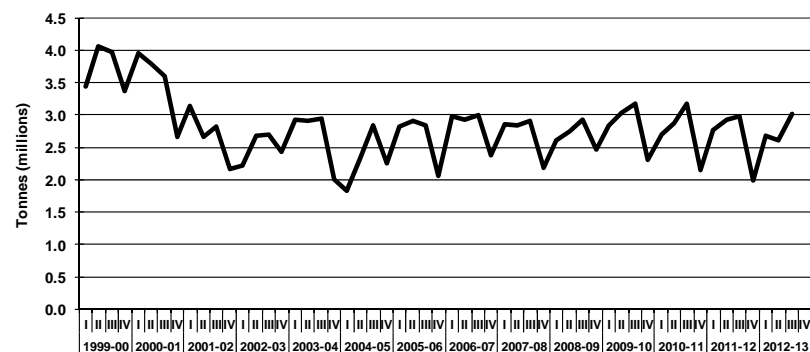


Figure 29: Average Weekly Stocks



Just as the average stock level has moved generally lower, so too has the average amount of time spent by grain in inventory. 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 27.7-day average posted for the first nine months of the 2012-13 crop year proved consistent with this, falling 2.1% below the 28.3-day average reported in the same period a year earlier. This result was largely driven by reduced storage times for wheat and durum. [Table 5A-3]

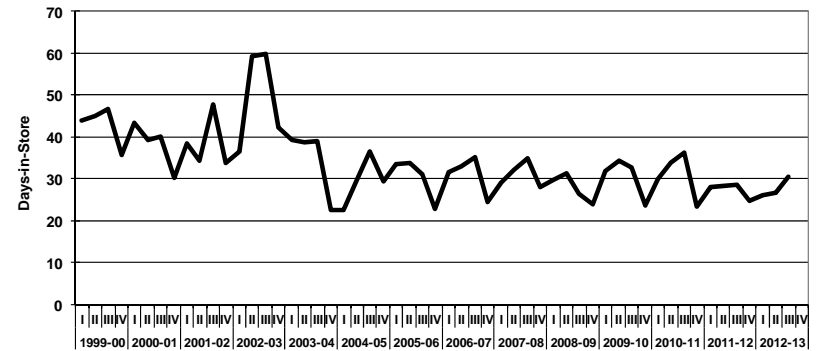
**Stock-to-Shipment Ratios**

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>35</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]

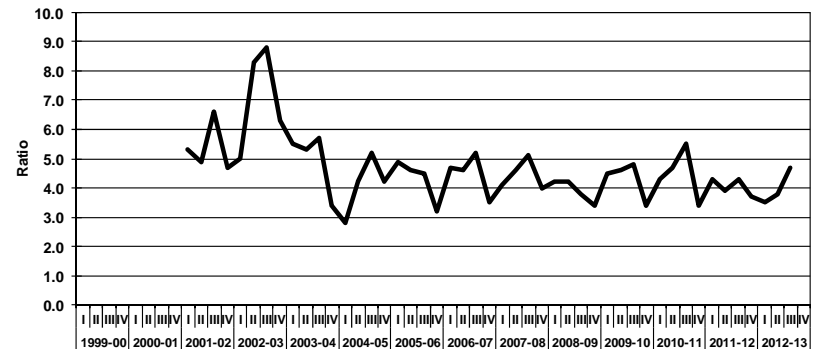
Although declining shipments coupled with rising inventories helped to lift the third quarter’s stock-to-shipment ratio to a height of 4.7, the increase only tempered the reductions that had been posted in the first and second quarters. The overall ratio fell by 4.8% in the first nine months of the 2012-13 crop year, to 4.0 from 4.2 a year earlier. This reduction in coverage largely reflects the lingering effects of heightened wheat, durum and barley shipments during the first half of the crop year.

<sup>35</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 30: Average Days in Store**



**Figure 31: Primary Elevators – Stock-to-Shipment Ratio**



## 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. During the first nine months of the 2012-13 crop year this task required an average of 13.8 days to complete, a 1.7% increase over the 13.6-day average recorded in the same period a year earlier.

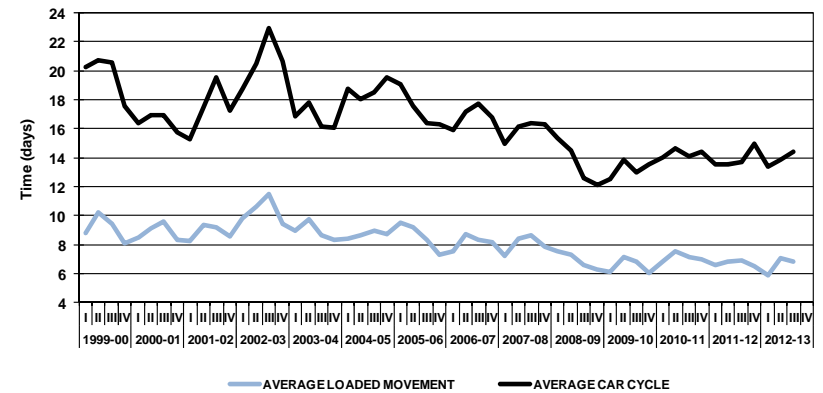
Much of the force behind this rise came from increases in the car cycles associated with movements to the west coast. The Prince Rupert corridor saw the most substantive escalation, with a sharp spike in the third-quarter average helping to fuel a 6.7% increase in the nine-month average, which rose to 12.9 days from 12.0 days a year earlier. A lesser increase of 2.4% was noted for movements in the Vancouver corridor, where the average car cycle rose to 14.5 days from 14.1 days. The only reduction came in the Thunder Bay corridor, where a 1.4% decrease resulted in the average cycle falling to 13.7 days from 13.9 days twelve months earlier. [Table 5B-1]

The overall increase in the average car cycle was heavily influenced by an elongation in the empty portion of the movement, which rose by 6.0%, to an average of 7.3 days from 6.9 days a year earlier. This was partially offset by a 2.5% reduction for the loaded portion of the movement, with the average falling to 6.6 days from 6.7 days.

These contrasts were also evident in the results posted by CN and CP, where CN reported a 3.9% increase in its average cycle against just a 0.1% increase for CP. Much of CP's advantage stemmed from an improvement in the loaded portion of its car cycle. Whereas CP saw a reduction of 7.8% in its loaded movement an increase of 6.4% in its empty movement, CN posted increases of 1.5% and 6.9% respectively.

An increase in the car cycle for the movement of non-special crops was also observed, with the average rising 1.7%, to 13.7 days from 13.5 days a

Figure 32: Average Railway Car Cycle



year earlier. Special crops saw the opposite, with its average falling by a marginal 0.6%, to 15.6 days from 15.7 days. Comparatively, the average for special crops proved to be 13.9% 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 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 drifted gradually lower since the beginning of the GMP. With the close of the 2011-12 crop year, 2.2 days had been shed from the 7.8-day average

benchmarked in the base year. Notwithstanding the aforementioned increase in the overall car cycle, the railways' average loaded transit time declined moderately in the first nine months of the 2012-13 crop year, falling by 2.5%, to 5.5 days from 5.6 days a year earlier. This was supported by a modest narrowing in the variability of the underlying distributions, with the coefficient of variation declining to 31.2% from 31.6%.<sup>36</sup> Despite this improvement, these values continue to indicate that the time taken in moving a loaded hopper car between any two points is highly erratic. [Table 5B-4]

### Multiple-Car Blocks

In the first nine months of the 2012-13 crop year, 17.9 million tonnes of grain moved in the multiple-car blocks that offered discounted freight rates. This represented a decrease of 1.1% from the 18.1 million tonnes handled a year earlier.

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>37</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 2011-12 crop year,

<sup>36</sup> 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.

<sup>37</sup> CN eliminated its \$1.00-per-tonne discount on shipments in blocks of 25-49 railcars at the beginning of the 2003-04 crop year. Although CP reduced its discount to \$0.50 per tonne at that time, the carrier only did away with them at the commencement of the 2006-07 crop year.

Figure 33: Average Loaded Transit Time

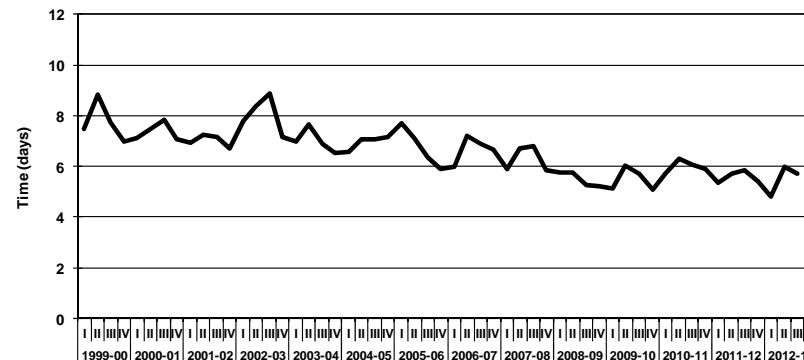
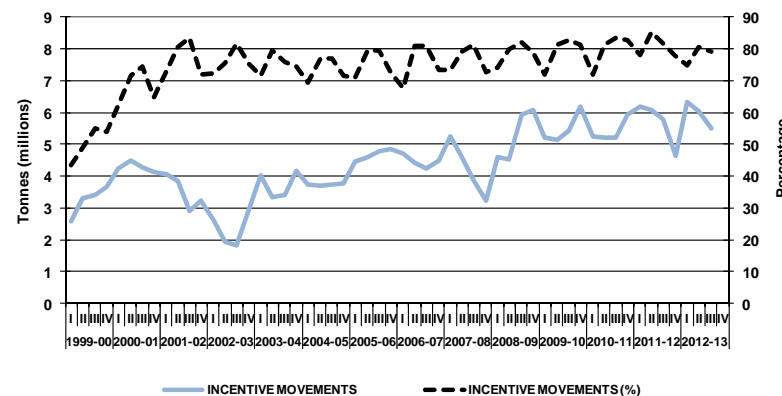


Figure 34: Railway Traffic Moving Under Incentive





80.7% 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 19.3% 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 - increased fivefold, climbing to an estimated \$154.6 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.

Despite a 1.1% decrease in the tonnage moving under these discounted freight rates in the first nine months of the 2012-13 crop year, the earned value of these discounts rose by 2.8%, to an estimated \$127.9 million from \$124.4 million a year earlier. This was also reflected in a greater average earned discount, which is estimated to have risen to \$7.15 per tonne from \$6.88 per tonne. [Table 5B-6]

### TERMINAL ELEVATOR OPERATIONS

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, typically encompassing from 20% to 25% of the quarterly throughput. In the face of a 1.7% increase in terminal throughput for the first nine months of the 2012-13 crop year, the average weekly stock level rose by 3.1%, but remained effectively unchanged from the 1.2-million-tonne average posted in the same period a year earlier.

This modest gain was consistent with the increases posted by the principal ports in western Canada. Vancouver, which accounted for 44.4% of total terminal stocks, saw its inventories increase by 5.4%, to an average of 534,900 tonnes from 507,700 tonnes a year earlier. Prince Rupert's gain amounted to a lesser 1.8%, with average stocks rising to 169,000 tonnes from 166,000 tonnes. Proportionately smaller gains were noted for the ports of Thunder Bay and Churchill. Churchill posted the larger relative gain, with stocks rising by 2.3%, to an average of 39,400

Figure 35: Composition of Multiple-Car-Block Movements

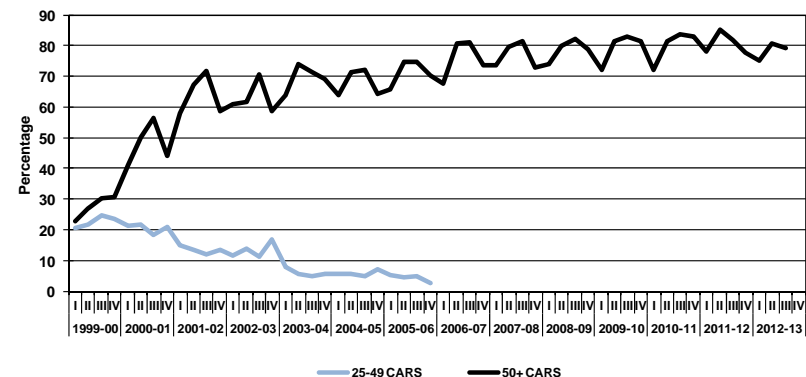
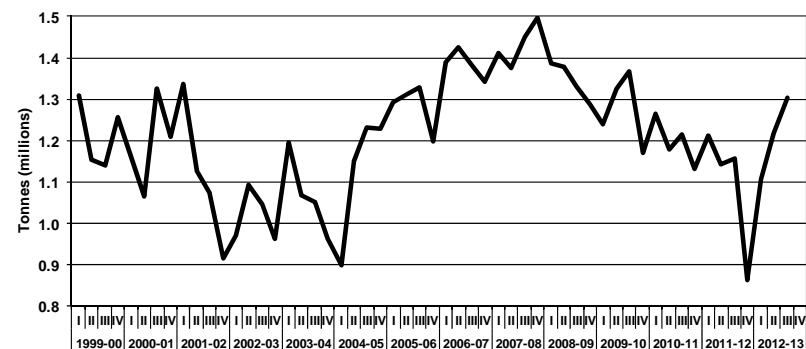


Figure 36: Terminal Elevators - Average Weekly Stocks



tonnes from 38,500 tonnes. For Thunder Bay, the increase amounted to just 1.0%, with stocks rising to an average of 462,600 tonnes from 458,000 tonnes a year earlier.

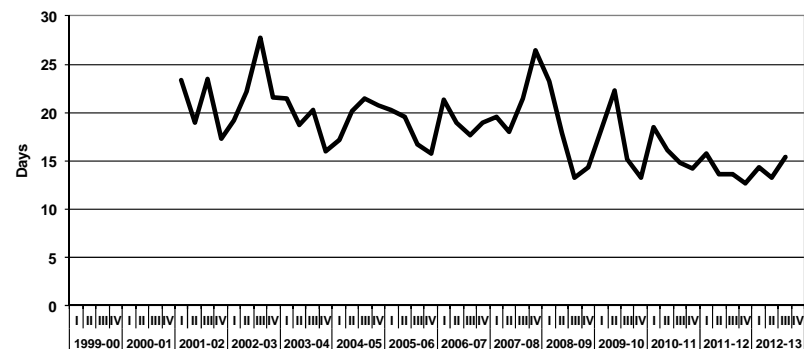
As in past years, wheat stocks again constituted the largest single commodity held in inventory. Total wheat inventories increased by 16.5% in the first nine months of the crop year, to an average of 547,200 tonnes from 469,700 tonnes a year earlier. This was complemented by substantive increases in both durum and barley stocks, which rose by 18.6% and 8.0% respectively. However, these increases were contained by a drawdown in the inventory of oilseeds and other commodities. Canola inventories alone fell by an average of 80,600 tonnes, or 28.6%. Equally significant declines were noted for oats, peas and rye. [Table 5C-2]

### Days in Store

Despite an increase in terminal stocks in the first nine months of the 2012-13 crop year, the amount of time grain spent in inventory remained unchanged at an average of 14.3 days. This result was largely shaped by a sharp rise in the third-quarter average, which effectively countered the lower values posted in the first and second quarters. While a third-quarter upturn was true of all ports, Vancouver was the only port to register an increase in its nine-month average, which rose by 4.2%, to 12.3 days from 11.8 days a year earlier. This was partially blunted by a 3.3% reduction at Prince Rupert, which saw its average during this period fall to 11.7 days from 12.1 days. Assisting in this containment were improvements at Churchill and Thunder Bay, which reported reductions amounting to 9.6% and 1.5% respectively. [Table 5C-3]

These reductions extended to most commodities as well. The chief exceptions were wheat and durum, which posted increases of 4.5% and 11.1% respectively, with corresponding averages of 14.0 days and 21.1 days. Despite the overall sway given to wheat and durum, steep declines in the average storage times of other commodities did much to contain the impact arising from their increase. These included decreases of

Figure 37: Terminal Elevators - Average Days-in-Store



10.0% on barley, 13.3% on canola, 32.1% on oats, 26.4% on peas, 40.9% on rye, and 14.9% on flaxseed.

### Stock-to-Shipment Ratios

Whether sufficient stocks were on hand to meet demand can best be gauged by the average weekly stock-to-shipment ratios. This measure provides an indication of how terminal stock levels related to the volume of grain loaded onto ships during the course of any particular week.<sup>38</sup>

For Vancouver, the average ratio on most grains stood comfortably above a value of 2.0. The exceptions to this proved to be wheat, canola and

<sup>38</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.

peas, which posted average ratios of 1.7, 1.4 and 1.9 respectively. In addition, the ratios associated with wheat, barley and peas also moved lower in the face of brisk grain shipments earlier in the crop year, while those tied to others commodities climbed. Increases in the ratios for Prince Rupert were generally noted as well, with that of wheat rising by 52.7% to 2.6. [Table 5C-4]

For the most part, the ratios posted by Thunder Bay stood well above a value of 2.0. The lowest ratio was tied to canola, which fell by 44.3% to 2.2. Most of the other ratios showed substantive increases from those posted a year earlier: wheat, 76.6%; durum, 22.4%; and flaxseed, 66.8%. Churchill reported lower ratio values than did Thunder Bay, with its ratios for wheat and durum falling by 8.4% and 25.2% respectively.

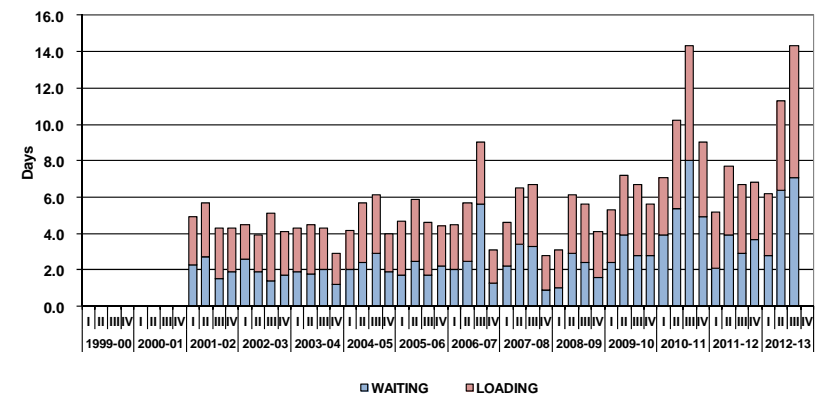
On the whole, these measures suggest that terminal stocks remained largely adequate in relation to the prevailing demand for specific commodities. Nevertheless, periodic stock shortages continued to arise. While grade-based stock-to-shipment ratios showed a greater degree of variability, they suggest much the same. [Table 5C-5]

## PORT OPERATIONS

A total of 614 vessels called for grain at western Canadian ports during the first nine months of the 2012-13 crop year. This represented an increase of 1.8% over the 603 ships that arrived for loading during the same period a year earlier. While this reflected the 1.7% increase in terminal-elevator throughput, it also signalled that there was no change in the average load taken on by the vessels calling at these ports.<sup>39</sup> Vancouver posted the largest nominal gain in arriving ships, with 305 vessels calling at the port against 295 a year earlier. An additional nine

<sup>39</sup> The Canadian Wheat Board was often able to consolidate grain shipments, which allowed it to charter larger vessels for export movements. Some speculated that individual grain companies might not be able to exercise the same leverage in the transition to open-market operations, and that average vessel loading could well diminish. However, vessel loading through the first nine months of the 2012-13 crop year remained unchanged from the previous year at an average of 34,300 tonnes.

Figure 38: Average Vessel Time in Port



ships called at Prince Rupert, with total arrivals rising by 11.7%, to 86 vessels from 77. In contrast, Thunder Bay and Churchill both reported reductions. For Thunder Bay this amounted to a decline of 2.8%, with 208 vessels calling at the port versus 214 the previous year. Churchill saw a deeper 11.8% reduction, receiving 15 vessels compared to 17 twelve months before.

## Average Vessel Time in Port

The amount of time spent by vessels in port increased by 56.1% in the first nine months of the 2012-13 crop year, climbing to an average of 10.3 days from the 6.6-day average reported for the same period a year earlier. A 76.7% increase in the amount of time vessels spent waiting to load, which rose to an average of 5.3 days from 3.0 days a year earlier, was the chief driver in the overall escalation.<sup>40</sup> This was supported by a

<sup>40</sup> 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.

38.9% increase in the amount of time vessels spent loading, which rose to an average of 5.0 days from 3.6 days.

While the ports of Vancouver, Prince Rupert and Thunder Bay all reported year-over-year increases, much of the underlying force in the overall rise came from the unusual lengthening of the times spent in port by vessels at Vancouver and Prince Rupert in both the second and third quarters. Vancouver, which posted a record-setting 19.3-day average under the GMP in the second quarter, saw its nine-month average rise by 74.7%, to 15.9 days from 9.1 days a year earlier. Prince Rupert, which saw its third-quarter average rise to a near-record high of 17.2 days, posted a more moderate increase, with its year-to-date average rising by 11.7%, to 11.5 days from 10.3 days. Adding to this upward pressure was Thunder Bay, where the nine-month average rose by 16.7%, to 2.1 days from 1.8 days.<sup>41</sup> Providing some counterweight to these increases was the 34.5% reduction posted by Churchill, which saw its average fall to 3.4 days from 5.2 days a year earlier. [Table 5D-1]

#### Distribution of Vessel Time in Port

In keeping with the added time taken by ships in port, the proportion of ships spending more than five days in port also rose, to 55.8% from 46.4% a year earlier. Moreover, there was a significant rise 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 effectively tripling to 26.1% from 8.5% a year earlier. All of these delays were associated with ships calling at Vancouver and Prince Rupert.

These statistics suggest that, while the GHTS was moving substantial volumes of grain through the first nine months of the 2012-13 crop year, this flow was not keeping pace with the demand for carrying capacity.

<sup>41</sup> Despite the increase noted here, Thunder Bay generally posts the lowest average for time spent by vessels in port. This lower average stems 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.

This was especially evident at Vancouver, where the proportion of time ships spent waiting grew from an average of 42.0% in August 2012 to 60.6% in January 2013. An even greater spiking was observed at Prince Rupert in March 2013, with 80.8% of the average time spent by ships in port being tied to waiting. [Table 5D-2]

#### SYSTEM PERFORMANCE

The supply chain model provides a useful framework by which to examine the speed with which grain moves through the GHTS. For the 2011-12 crop year, it was observed that this process required an average of 47.1 days; the lowest annualized value yet 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 21.0-day improvement over the base-year average of 68.1 days.

The overall average rose to 47.5 days in the first nine months of the 2012-13 crop year. This result was largely the product of a 0.4-day increase in the amount of time spent by grain in storage at a terminal elevator, which rose to 14.3 days from 13.9 days. An additional 0.1 days was derived from an increase in the amount of time grain spent in inventory in the country elevator system, which rose to an average of 27.7 days from 27.6 days. This was countered by a 0.1-day reduction in the railways' loaded transit time, which fell to an average of 5.5 days from 5.6 days. [Table 5E-1]

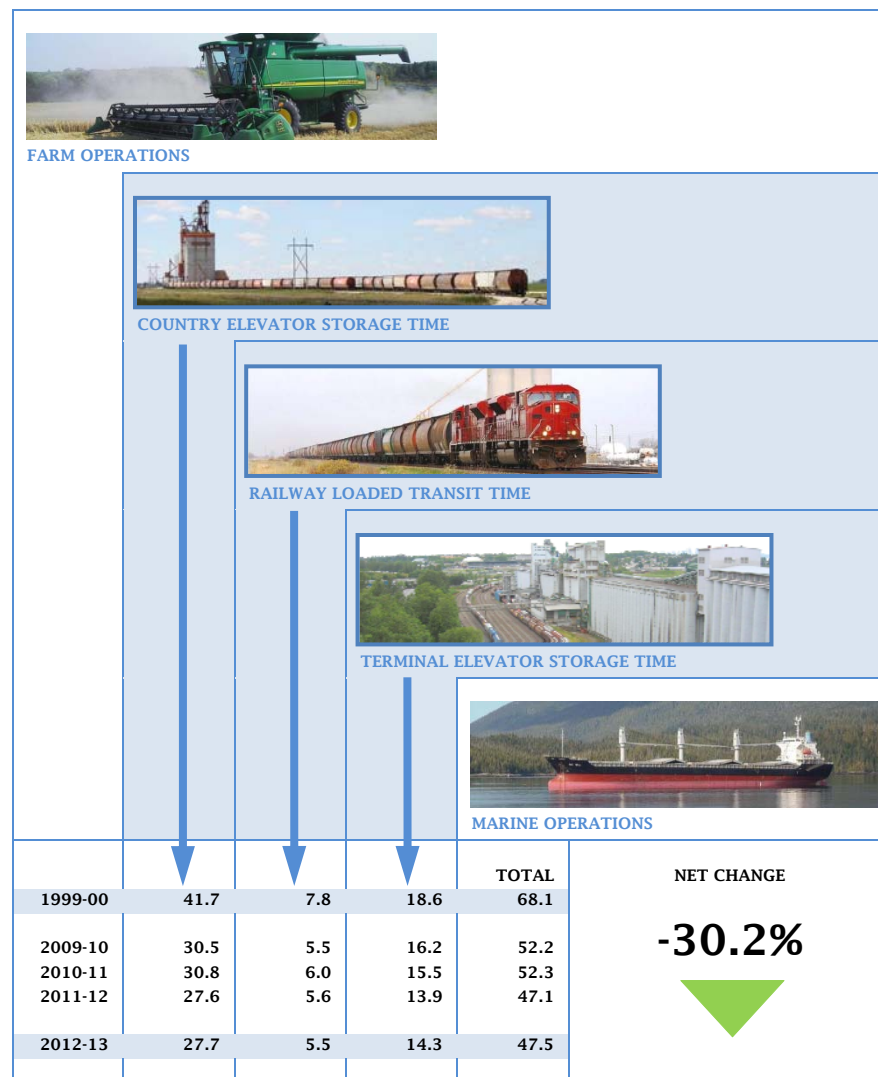
Despite this elongation, the overall average still ranks among the lowest observed under the GMP. A few observations relating to the system's overall performance during the first nine months of the 2012-13 crop year follows:

- First, despite a modest decrease in the grain supply, which fell to 61.7 million tonnes from the previous crop year's 62.2 million tonnes, railway shipments in both of the crop year's first two quarters broke previous GMP records. Even with a slump in third-

quarter movements, total grain shipments for the first nine months of the 2012-13 crop year reached a new GMP record of 23.9 million tonnes. This meant that the demand pressures brought to bear on the GHTS proved to be the greatest yet observed for this period under the GMP.

- Second, while the measures gathered under the GMP suggest that the GHTS bore these pressures reasonably well, there were signs that the system might also have begun to bend under the stress. These indications, which largely began to manifest themselves towards the end of October 2012, centred on some emergent problems with railcar supply in the country. In the second quarter, this shifted to a sharp rise in the number of ships waiting to load, particularly at the port of Vancouver. By the third quarter a hard winter was beginning to undermine railway operations, producing longer car cycles that only aggravated these earlier problems.
- Finally, and as demonstrated during other highly productive periods in the GMP's history, the GHTS's performance in the opening months of the 2012-13 crop year highlighted how effective the system can be when all of its elements are working in close harmony. While the grain industry could take pride in moving record volumes during its transition to an open-market environment, it could not ignore the vulnerabilities that still endangered the supply chain's ability to efficiently gather grain in the country, move it to port by rail, or load it onto ships. The operational problems that began to appear in the second and third quarters suggest that the demands placed on the supply chain might well have exceeded what the GHTS was capable of meeting on a consistent basis.

Figure 39: Days Spent Moving Through the GHTS Supply Chain



## Section 6: Producer Impact

Indicator Description	Table	2012-13								
		1999-00	2010-11	2011-12	Q1	Q2	Q3	Q4	YTD	% VAR
<b>Export Basis</b>										
1CWRS Wheat (\$ per tonne)	6A-10A	\$54.58	\$73.35	\$74.75						
1CWA Durum (\$ per tonne)	6A-10B	\$67.63	\$89.36	\$97.24						
1 Canada Canola (\$ per tonne)	6A-10C	\$52.51	\$53.14	\$54.16						
Canadian Large Yellow Peas - No. 2 or Better (\$ per tonne)	6A-10D	\$54.76	\$84.86	\$92.64						
<b>Producer Cars</b>										
Producer-Car-Loading Sites (number) - Class 1 Carriers	6B-1	415	250	234	231	231	228	-	228	-2.6%
Producer-Car-Loading Sites (number) - Class 2 and 3 Carriers	6B-1	122	115	132	134	134	134	-	134	1.5%
Producer-Car-Loading Sites (number) - All Carriers	6B-1	537	365	366	365	365	362	-	362	-1.1%
Producer-Car Shipments (number) - Covered Hopper Cars	6B-2	3,441	13,041	14,341	2,053	2,670	2,353	-	7,076	-31.9%

## PRODUCER NETBACK

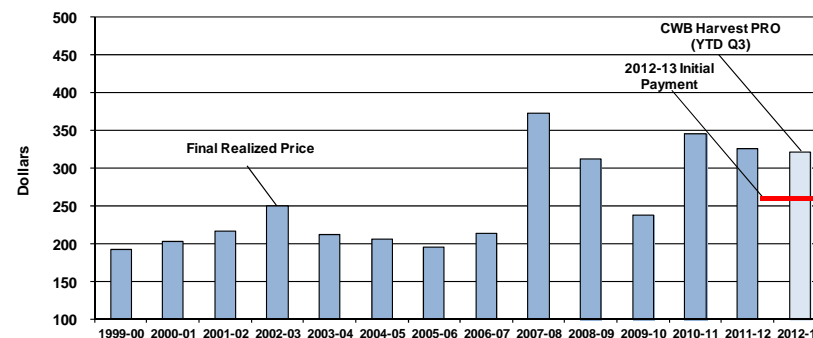
One of the GMP's key objectives is to determine the financial impact on producers arising from changes in the GHTS. The principal measure in this regard is the producer netback, an estimation of the per-tonne financial return to producers after the various logistics costs, collectively known as the export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

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

In the first four years of the GMP, grain prices moved steadily higher. This, however, was followed by a three-year decline beginning in the 2003-04 crop year. Prices began to rally yet again in the 2006-07 crop year, with the ensuing appreciation lifting producer returns to their highest levels the following year. This age-old rise and fall in prices would be repeated yet again, although with greater severity owing to the financial crisis that gripped the world, over the course of the next four years. Nevertheless, by the close of the 2011-12 crop year, grain prices had rebounded substantially.

The GMP only includes the producer netback in the Monitor's annual reports since certain elements integral to the calculation are not available until after the close of the crop year itself. Nevertheless, relevant pricing and handling-cost data is collected for both wheat and canola as a means of providing some insight into their probable impact on the per-tonne financial return arising to producers. Some of the changes observed during the first nine months of the 2012-13 crop year are presented here.

Figure 40: Price Changes - 1CWRS Wheat (dollars per tonne)



## Wheat

The GMP uses the CWB's Harvest Pool Return Outlook (Harvest PRO) for 1 CWRS wheat (13.5% protein) as the principal barometer of changing prices.<sup>42</sup> In the first months of the 2012-13 crop year the CWB's Harvest PRO for 1 CWRS wheat moved steadily higher, ultimately attaining an average of \$366.00 per tonne by the close of the first quarter. But the second quarter saw prices slip in the face of softening markets, with the decline continuing into the third quarter. By mid March 2013 the Harvest PRO - and the last issued during the third quarter - had fallen to an average of \$321.00 per tonne. This proved to be 1.5% below the 2011-12

<sup>42</sup> Prior to the change in the mandate of the Canadian Wheat Board, the GMP used the Pool Return Outlook as its primary price indicator for 1 CWRS wheat. In the face of the mandate change that became effective 1 August 2012, the GMP has adopted the CWB's Harvest Pool Return Outlook. While not perfectly aligned with the measure that preceded it, the Harvest PRO still provides a reasonable bridge for the comparison of wheat prices in an open market environment.

crop year's final realized price of \$326.04 per tonne but still well above the farmer's initial payment of \$261.20 per tonne.

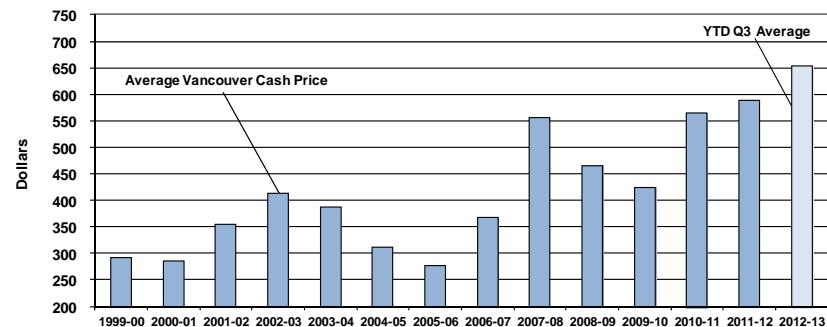
The early price gain reflected a tightening of international supplies, with global wheat production then anticipated to decline by about 6%. Much of this was tied to weather-related production problems in the Black Sea region but was also fuelled by the broader impact on commodity prices arising from a severe drought in the American Midwest. Dryness in parts of Australia, coupled with a smaller seeded area in Argentina, also proved supportive of prices. Futures prices began to slip in the latter weeks of 2012 on word of better-than-expected supplies. As these projections began to firm in the third quarter, prices continued to slide. This erosion in price suggests that the financial returns accruing to producers will likely decline modestly in the 2012-13 crop year.

### Canola

As with wheat, the Vancouver cash price for 1 Canada Canola also moved higher during the initial months of the 2012-13 crop year, albeit to a much lesser degree. Here too, the expected tightening of oilseed supplies in the face of strong demand did much to sustain prices. A key driver in this was the drought-induced impact on American soybean production, which left the marketplace looking to other producing countries to cover the shortfall. Similarly, Canadian canola production fell by almost 9% as a result of disappointing yields.

However, after hitting an average of \$601.66 per tonne in September 2012, canola prices also began to slip, ultimately shedding almost 4% before reclaiming this lost ground and moving even higher. By the close of the third quarter the average Vancouver cash price for 1 Canada Canola had risen by 10.9%, to \$653.33 per tonne from the previous crop year's final average of \$589.21 per tonne. This increase suggests that producers of 1 Canada canola will witness a moderate improvement in their per-tonne financial returns for the 2012-13 crop year. Still, these returns are likely to rank among the best yet posted under the GMP.

Figure 41: Price Changes - 1 Canada Canola (dollars per tonne)



Although the gains derived from rising prices boded well for a further increase in the producer's financial returns, rising input costs also suggested that these would be tempered. The largest of these were tied to increased railway freight rates, particularly on movements to the west coast, which at the close of the third quarter had risen by a factor of 17%. Lesser impacts arose from the handling charges for various elevator activities. In the case of country elevators, these ranged from a marginal 0.1% increase in the rates assessed for the removal of dockage, to a 1.1% increase in those tied to the storage of grain. Adjustments to the rates for terminal elevator activities also proved modest, with selective changes leading the way to a 0.1% increase in those associated with the receiving, elevating and loading out of grain, and a 0.4% increase in those for storage.



## 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>43</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 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]

The first nine months of the 2012-13 crop year saw a further shift in this balance, with the Class 1 carriers' count diminishing by six sites while that of the Class 2 and 3 carriers rose by two. The reduction in the former was tied to the closure of various CP sites in Manitoba and Saskatchewan, while the latter's gain arose from the creation of the Lake Line Railroad, which assumed operation of the former CP sites at Gimli and Beausejour, Manitoba. By the end of the period, the number of sites

operated by the major railways had fallen to 228 while those tied to the shortlines had increased to 134.

### Producer Car Shipments

Despite the general reduction in 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. However, this growth proved somewhat sluggish in the face of periodic downturns in volume. Even so, the 2011-12 crop year saw the setting of a record 14,341 carloads being shipped under the GMP.

With the loss of the CWB's monopoly over the marketing of wheat and barley, many in the grain industry had begun to wonder what would become of producer-car loading. However, shipments in the first quarter proved strong, increasing by 14.2%. A 35.6% reduction during the second quarter undercut these early gains. This was followed by an even steeper 47.0% decline in the third quarter. As a result, total producer-car shipments for the first nine months of the 2012-13 crop year fell by 31.9%, to 7,076 carloads from 10,385 carloads in the same period a year earlier. This represented 2.8% of all covered hopper car movements; a substantive reduction from the 4.2% share garnered twelve months before. The share accorded to producer-car shipments of wheat, durum and barley fell even more, to 4.1% from 7.3% a year earlier. [Table 6B-2]

Even within this broader decline, there was a dramatic rise in producer-car shipments of oilseeds and other commodities, with the nine-month total reaching a GMP record of 1,208 carloads against 705 a year earlier. This gain was almost entirely attributable to the CWB's newly-acquired authority in handling these commodities, and which provided producers with a much needed marketer for their shipments.

<sup>43</sup> 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.

## 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.

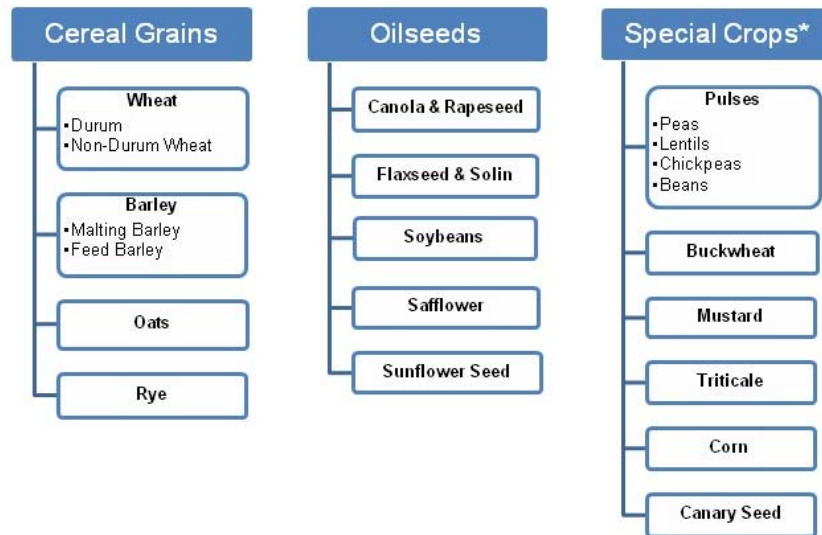
In a larger sense, these reforms were expected to alter the commercial relations that have traditionally existed between the primary participants in the GHTS: producers; the Canadian Wheat Board; grain companies; railway companies; and port terminal operators. Using a broad series of indicators, the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



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

**Cereal Grains:** Cereal grains are any grain or edible seed of the grass family which may be used as food.

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