First Quarter Report

2013-2014 Crop Year

Monitoring the Canadian Grain Handling and Transportation System

Government of Canada / Gouvernement du Canada

Quorum Corporation

Quorum Corporation

Suite 701, 9707–110 Street
Edmonton, Alberta
T5K 2L9

Telephone: 780 / 447-2111
Fax: 780 / 451-8710

Website: www.quorumcorp.net
Email: info@quorumcorp.net

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

Foreword

The following report details the performance of Canada's Grain Handling and Transportation System (GHTS) for the three months ended 31 October 2013, and focuses on the various events, issues and trends manifest in the movement of Western Canadian grain during the first quarter of the 2013-14 crop year.

As with the Monitor's previous quarterly and annual reports, the report that follows is structured around a number of measurement indicators. The close of the 2009-10 crop year saw the traditional five-group subdivision of these indicators changed, with their reorganization into a new six-group series, comprising:

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

As in the past, each series builds on data collected by the Monitor from the industry's various stakeholders, and frames the discussion using year-over-year comparisons. To that end, activity in the 2013-14 crop year is largely gauged against that of the 2012-13 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 relatable quarterly data in a time series that extends through 15 crop years. This data constitutes the backbone of the GMP, and is used widely to identify significant trends and changes in GHTS performance.

Although the data tables presented in Appendix 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). Additional .PDF copies of this report, as well as all past reports, can also be downloaded from the Monitor's website.

QUORUM CORPORATION
Edmonton, Alberta

Table of Contents

Executive Summary

PRODUCTION AND SUPPLY

The 2013-14 crop year witnessed a record harvest, with western Canadian grain production increasing to 75.9 million tonnes. Not only did this mark a 33.4% gain over the previous crop year's 56.9-million-tonne crop, it also stood substantially above the previous GMP high of 60.4 million tonnes set just five years earlier. This unprecedented level of production was largely shaped by favourable weather conditions throughout the growing season, which allowed the crop to not only mature with minimal stress, but to also attain a good level of quality. When combined with 4.9 million tonnes of carry-forward stocks, the grain supply grew to an unprecedented 80.8 million tonnes. This embodied a 29.1% increase over the previous crop year's 62.6 million tonnes. The sheer size of the crop presented a number of challenges for the GHTS as a whole, not the least of which was its ability to effectively and efficiently provide for its movement.

TRAFFIC AND MOVEMENT

Despite the large increase in the grain supply, the Grain Handling and Transportation System's (GHTS) total handlings declined in the first quarter of the 2013-14 crop year.

- Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by 0.6%, to 9.8 million tonnes from 9.9 million tonnes a year earlier. This result was largely shaped by reduced shipments from Alberta, which fell by 5.0%; Manitoba, 3.3%; and British Columbia, 43.7%. A 4.6% increase in shipments from Saskatchewan helped to partially offset these losses.

- The amount of grain moved by rail to western Canadian ports decreased by 3.2%, falling to 8.4 million tonnes from 8.8 million tonnes a year earlier. As in past years, the vast majority of this traffic, some 8.2 million tonnes, moved in covered hopper cars. The remaining 234,300 tonnes moved in a combination of boxcars and containers for bulk and bagged grain shipments, as well as tankcars for export canola oil.

- The port of Vancouver remained the principal export destination for western Canadian grain, although covered-hopper-car shipments decreased by 1.0%, to 4.8 million tonnes, from 4.9 million tonnes. However, Prince Rupert posted a 9.3% increase, with volume climbing to 1.2 million tonnes from 1.1 million tonnes. With a 17.1% decline in volume, Thunder Bay reported the steepest traffic reduction, with total tonnage falling to 1.8 million tonnes from 2.1 million tonnes. Shipments to Churchill, which increased by 25.6%, to 481,200 tonnes from 383,300 tonnes, helped to counter some of this decline.

- Port throughput, as measured by the volume of grain shipped from terminal elevator and bulk loading facilities located at Canada's four western ports, fell by 8.6%, to 6.9 million tonnes from 7.6 million tonnes a year earlier. Vancouver accounted for 56.3% of this volume, with total marine shipments decreasing by 6.7%, to 3.9 million tonnes from 4.2 million tonnes. Prince Rupert saw a 7.5% reduction, with shipments falling to 1.0 million tonnes from 1.1 million tonnes a year earlier. Thunder Bay witnessed a 20.6% decrease in volume, with throughput falling to 1.5 million tonnes from 1.9 million tonnes. Churchill reported a 24.6% increase in its handlings, which rose to 524,500 tonnes from 421,000 tonnes.

INFRASTRUCTURE

The infrastructure that defines the GHTS in western Canada has undergone significant change since the beginning of the GMP. 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 three months of the 2013-14 crop year.

- The total number of country elevators decreased by 1.3%, to 386 from 391 at the close of the previous crop year. This brought the accumulated loss since the beginning of the GMP to 618 facilities, or 61.6%. Much the same was true of the network's grain delivery points, which decreased by 0.7%, to 272 from 274. This was complemented by the construction of 25,700 tonnes of added storage capacity (to existing facilities), with the overall total being raised to slightly under 6.9 million tonnes; a value not far removed from that benchmarked in the GMP's base year.

- The western Canadian railway network stood unchanged during the first quarter of the 2013-14 crop year, encompassing some 17,600.2 route-miles. Although this denotes a reduction of 9.6% from the 19,468.2 route-miles in place at the beginning of the GMP, the 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 failure of the Kelowna Pacific Railway. This served to increase the infrastructure under Class 1 management to 15,011.5 route-miles, or 85.3%, and reduce that under the non-Class-1 carriers to 2,588.7 route-miles, or 14.7%.

- The first quarter of the 2013-14 crop year brought still more changes to the composition of the licensed terminal elevator network at Thunder Bay. The first involved the relicensing of the 231,030-tonne facility acquired by Richardson International from Viterra in May 2013. The second involved an agreement between Parrish and Heimbecker Limited and Cargill Limited to jointly operate the latter's existing facility. These effectively left Thunder Bay with 40.0% of the system's facilities and a greater 47.7% of its storage capacity. Vancouver, which held the first-place ranking with seven facilities, saw its share of the network's storage capacity fell to 37.7%. Prince Rupert and Churchill both followed with one terminal elevator each and storage capacity shares that fell to 8.7% and 5.8% respectively.

COMMERCIAL RELATIONS

The first three months of the 2013-14 crop year brought little substantive change to the cost of many of the commercial services used to move grain through the GHTS.

- While oil prices remained volatile, the commercial trucking rates associated with moving grain varied little through the first quarter of the 2013-14 crop year. As a result, the composite price index for short-haul trucking remained unchanged at 162.2.

- Railway freight rates saw a mix of increases and decreases in the first quarter. Once again, these varied according to the corridor and carrier involved. Westbound movements saw general reductions, with CN's single-car rates falling by 3.7% while CP's rates fell by a slightly greater 4.0%. Eastbound pricing provided more contrast, with CN escalating its rates into Thunder Bay and Churchill by 1.9% and 4.1% respectively, while CP left its Thunder Bay rates unaltered during the period.

- Only modest changes were noted in the per-tonne rates assessed by grain companies for a variety of primary elevator handling activities during the first quarter of the 2013-14 crop year. These ranged from no change in the rates for storage to a 0.1% increase in the rates assessed for the removal of dockage, and a 1.2% increase in those tied to elevation.

- There were virtually no changes to the rates assessed by the GHTS's terminal elevators for the receiving, elevating and loading out of grain in the first quarter of the 2013-14 crop year, with the composite price index rising by just 0.2%, to 149.6 from 149.4. Storage charges for the period also remained unchanged, with the composite price index holding at 179.4.

Commercial Developments

Although the quantity and quality of the crop has always been a key factor in shaping the commercial activities surrounding the movement of grain, the sheer size of the crop harvested in the fall of 2013 was the dominant issue, and spotlighted renewed concerns over the inherent weaknesses of the existing supply chain.

- Western Canadian farmers began harvesting a crop of unprecedented size in August 2013. Even so, few within the grain industry could have anticipated that production would stand a full 25% above the previous record of 60.4 million tonnes. As the final estimate began to crystallize, the industry began to confront the realities attached to the marketing of a 75.9-million-tonne crop. But foremost among the growing list of concerns was the fear that the GHTS would be incapable of adequately providing for its movement. In fact, the majority of stakeholders hoped that the system would have sufficient capacity to handle a sizeable portion of the added production, thereby avoiding the buildup of an unwieldy level of carry-out stocks at year end. As the scope of the challenge confronting the industry became apparent the system quickly became inundated with grain. On-farm inventories were soon bulging with an unanticipated excess. Moreover, as elevator deliveries grew, the problem began to spread. Before long the country elevator system was beginning to congest, with many facilities forced to turn away producers for the simple lack of space. Central to the timely processing of any elevator's grain was the carrying capacity provided to it by the

railways; without an adequate supply of railcars the system would soon became backlogged. By mid September 2013 the demand for carrying capacity in the country was outpacing what was being supplied by a factor of 10%, leaving the equivalent of about 1,000 carloads of traffic going unmoved each week[1]. The effects of this were also beginning to spread, with terminal elevator stocks declining by as much as 20% from what had been observed during the same period a year earlier. More importantly, the number of vessels waiting to load at port was now beginning to climb. By the close of the first quarter the majority of these indicators had only worsened: country elevators stocks rose to 3.5 million tonnes; uncommitted railcar orders topped 15,000; and the number of ships waiting to load at west-coast ports was approaching 20. For its part, the carrying capacity supplied by the railways proved roughly equivalent to that supplied during the same period a year earlier. Moreover, the railways had been striving to enhance the productivity of their operations; increasing equipment velocity while reducing locomotives, railcars and human resources. The situation was made all the worse given the urgency to sell grain in a market already characterized by declining prices. The pressure exerted by farmers trying to effect delivery sooner rather than later only compounded the system's growing problem with congestion. To add to matters, a CN freight train derailed near Gainford, Alberta, on 19 October 2013, closing the carrier's principle artery to the west coast for four days and impacting the fluidity of railway operations still further.

- 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 revisions to the *Canada Grain Act* was the transfer of responsibility for inward weighing and inspection at terminal elevators from the CGC to the private sector. Although the CGC would no longer be the primary source of this data, the Act affirmed its oversight role in collecting this fundamental information regarding terminal elevator operations. To this end, the CGC convened an industry working group to develop the standards and information-gathering protocols that would be used in the future. This ultimately evolved into what the CGC called its Licensed Terminal Elevator Reporting Requirements, which was distributed to the industry in June 2013. The transfer of this responsibility, which resulted in terminal-elevator staff collecting and reporting on data previously collected by the CGC, led to various teething pains in the first quarter of the 2013-14 crop year. Regular users of the Monitor's reports need to be mindful that these changes in the approach to data collection had inevitable consequences for the measures assembled for terminal-elevator operations. While the data provided by the terminal-elevators is equivalent to that previously collected by the CGC, it is gathered by a variety of companies with equally diverse approaches to data collection. This, along with other changes in the data reporting, makes some direct comparisons with previously collected data under the GMP difficult.

[1] The number of railcars ordered serves as a proxy for the overall demand for carrying capacity. Those subsequently confirmed by the carriers (i.e., for which the carrier designates that a railcar will be supplied) serves as a stand-in for the available supply of carrying capacity. Owing to an indeterminate number of unconfirmed carry-over orders, the number of confirmed orders for a given period can only be regarded as an estimation of the maximum made available. The 90% confirmation rate estimated here suggests that at least 10% of the orders placed were beyond the servicing ability of the railways. These unconfirmed orders effectively denote a pent up, or unfilled, demand for railway carrying capacity.

SYSTEM EFFICIENCY AND PERFORMANCE

With the grain supply having risen to a record-breaking 80.8 million tonnes, the demand pressures brought to bear on the GHTS proved to be unprecedented. Even so, the GHTS moved to meet the challenge as best it could.

- The overall amount of time involved in moving grain through the supply chain fell to an average of 43.5 days from the previous crop year's overall 46.2-day average. This was largely shaped by a 2.5-day reduction in the amount of time spent by grain in storage at a terminal elevator, which fell to an average of 11.8 days from the previous crop year's 14.3-day average. An additional 0.5 days was derived from a decrease in the railways' loaded transit time, which fell to an average of 4.9 days from 5.4 days. These improvements were partially offset by a 0.3-day increase in the amount of time grain spent in inventory at a country elevator.

- While these metrics suggest that the GHTS responded fairly efficiently to the challenge presented, by the close of the first quarter there were indications that the GHTS's carrying capacity was not adequate to the task presented. These indications, which first began to manifest themselves in a shortage of railcars for loading in the country, were soon beginning to engulf other parts of the system. Burgeoning country elevator stocks, along with declining terminal elevator stocks and an increasing number of ships waiting to load, particularly at the ports of Vancouver and Prince Rupert, were all symptomatic of constrained handling capacity. These strains exposed yet again the vulnerabilities that still endangered the supply chain's ability to quickly adjust to changing market conditions and provide for the efficient and timely gathering of grain in the country, its movement to port by rail, and its loading onto waiting ships. The operational problems that began to appear in the first quarter suggest that the demands placed on the supply chain probably 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 three months of the 2013-14 crop year are summarized below.

- After undulating marginally in the opening months of the 2013-14 crop year, the export quotation for 1 CWRS wheat (13.5% protein) drifted down to an average of $328.31 per tonne by the close of the first quarter. Comparatively, this proved to be just 0.1% below the 2012-13 crop year's average of $328.76 per tonne. The early price decline reflected an increase in international

supplies, with global wheat production anticipated to reach near-record highs. This erosion suggested that the financial returns accruing to producers will likely decline modestly in the 2013-14 crop year.

- Canola saw a sharper price decline in the first quarter than did wheat, with the Vancouver cash price for 1 Canada canola slipping to $508.50 per tonne from $542.35 per tonne. With the close of the period, the average price of $524.60 per tonne stood 19.5% below the previous crop year's final average of $651.60 per tonne. Much of this decline was tied to an expected increase in oilseed supplies, which was being fed by bountiful soybean harvests in the United States and Brazil. The scope of this reduction suggests that producers are likely to see a significant decline in their per-tonne financial returns for the 2013-14 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 quarter of the 2013-14 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 362 of the original 709 left in service at the close of the 2012-13 crop year. The first quarter of the 2013-14 crop year produced no change to the makeup of this system. As a result, the number of sites operated by the major railways remained at 228 while those tied to the shortlines stood at 134.

- Producer-car shipments rebounded by 7.5% in the first quarter, climbing to 2,206 carloads from 2,053 carloads in the same period a year earlier. This represented 2.4% of all covered hopper car movements; a modest gain over the 2.2% share garnered twelve months before. Hidden within by these values, however, is the continuing shift in the mix of commodities handled. Until the 2009-10 crop year, wheat, durum and barley was dominant, representing virtually all of traffic moved. The first quarter saw this share decline still further, to 66.3% from 76.5% in the same period a year earlier. On the other hand, shipments of oilseeds and other commodities continued its ascendancy, encompassing 33.7% of total producer-car movements against 23.5% the year previous.

Section 1: Production and Supply

Indicator Description	Table	1999-00	2011-12	2012-13	2013-14 Q1	Q2	Q3	Q4	YTD	% VAR
Production and Supply										
Crop Production (000 tonnes)	1A-1	55,141.7	53,543.9	56,882.1	75,897.3				75,897.3	33.4%
Carry Forward Stock (000 tonnes)	1A-2	7,418.2	8,627.9	5,733.5	4,909.9				4,909.9	-14.4%
Grain Supply (000 tonnes)		62,559.9	62,171.8	62,615.6	80,807.2				80,807.2	29.1%
Crop Production (000 tonnes) – Special Crops	1A-3	3,936.7	4,474.6	5,551.8	6,347.3				6,347.3	14.3%

PRODUCTION AND SUPPLY

The 2013-14 crop year witnessed a record harvest, with western Canadian grain production increasing to 75.9 million tonnes. Not only did this mark a 33.4% gain over the previous crop year's 56.9-million-tonne crop, it also stood substantially above the previous GMP high of 60.4 million tonnes set just five years earlier. This unprecedented level of production was largely shaped by favourable weather conditions throughout the growing season, which allowed the crop to not only mature with minimal stress, but to also attain a good level of quality. [Table 1A-1]

The sheer size of the crop presented a number of challenges for the GHTS as a whole, not the least of which was its ability to effectively and efficiently provide for its movement. Against these concerns was a broader backdrop that featured an increase in global grain production, which led to surplus supplies and declining market prices.

Provincial Distribution

The overall increase in prairie grain production was reflective of an expansion that reached across all provinces. Nowhere was this more evident than in Saskatchewan, which accounted for just over half of the crop and saw output rise by 40.4%, to a record 38.4 million tonnes from 27.4 million tonnes a year earlier. The establishment of a new production record proved to be equally true for the other provinces as well. Alberta, which posted the next largest harvest, reaped 25.1 million tonnes against 20.0 million tonnes the previous crop year. Manitoba, with a gain of 28.6%, saw its production rise to 11.9 million tonnes from 9.3 million tonnes. Adding to this profusion was a 130,100-tonne increase for British Columbia, where production rose by 45.9%, to 413,300 tonnes from 283,200 tonnes.

Figure 1: Precipitation Compared to Historical Distribution (1 April to 31 August 2013)

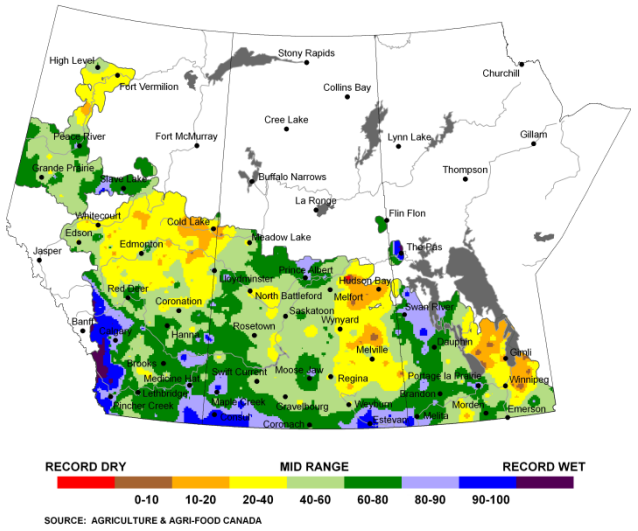
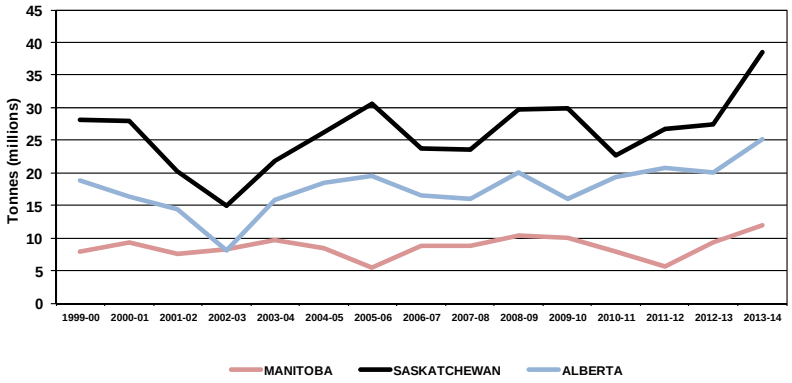


Figure 2: Provincial Grain Production



Commodity Distribution

The 2013 growing season saw substantive increases in the production of virtually all crops. The most significant gain was made by wheat, durum and barley, which collectively rose by 37.0% against a 28.7% increase in the output of oilseeds and other commodities. With total wheat, durum and barley production rising to 44.7 million tonnes from 32.6 million tonnes a year earlier, this sector accounted for 58.8% of total grain production. Oilseeds and other commodities rose to 31.2 million tonnes from 24.3 million tonnes, and represented 41.2% of the total output.

The 12.1-million-tonne increase in wheat, durum and barley production was led by a 38.7% increase in the amount of wheat harvested, which rose to 28.4 million tonnes from 20.5 million tonnes a year earlier. This was augmented by the effects of a 30.2% increase in barley production, which saw output rise to 9.7 million tonnes from 7.5 million tonnes the previous year. A 40.6% increase for durum saw production rise to 6.5 million tonnes from 4.6 million tonnes.

With almost 17.9 million tonnes of production, canola accounted for 57.2% of the 31.2 million tonnes of oilseeds and other commodities harvested in the 2013-14 crop year. Moreover, this denoted a 4.1-million-tonne increase over the 13.8 million tonnes of canola produced a year earlier. This gain was bolstered by a 1.1-million-tonne increase in oat production, which rose to 3.6 million tonnes from 2.5 million the year previous. A further 1.7 million tonnes was derived from increases in other commodities, chiefly dry peas, soybeans and grain corn.

Special Crops

Along with the increased production of oilseeds and other commodities was a heighted output for special crops.[2] Total production for the sector

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

Figure 3: Grain Production – Major Commodity Groupings

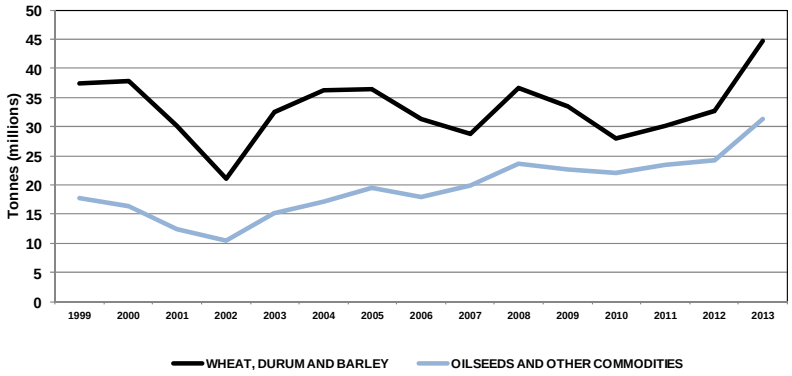
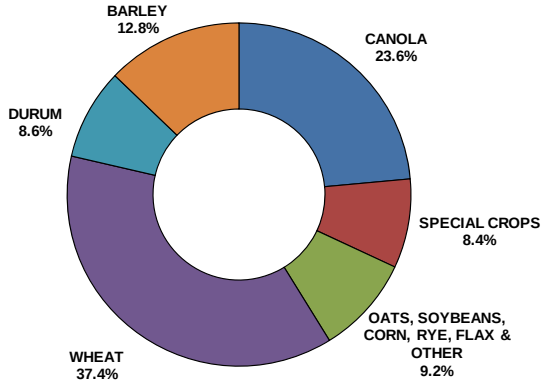


Figure 4: Major Grain Production – 2013-14 Crop Year



amounted to slightly more than 6.3 million tonnes, up 14.3% from the 5.6 million tonnes reported a year earlier. This gain was heavily influenced by a 508,500 increase in dry pea production – the sector's largest single crop – which rose to 3.8 million tonnes from 3.3 million tonnes a year earlier. This was augmented by a 342,600 rise in the output of lentils, and supplemented by lesser tonnage increases for mustard seed and chickpeas. Detracting marginally from these gains were reductions in the production of canary seed, dry beans and sunflower seed. [Table 1A-3]

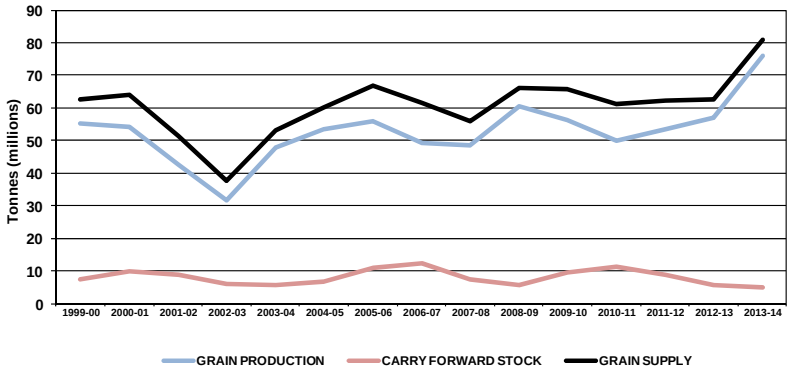
Carry-Forward Stock and Western Canadian Grain Supply

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

Totalling some 4.9 million tonnes, these stocks proved to be 14.4% less than the 5.7 million tonnes that had been carried forward a year earlier. Much of the impetus for this 823,600-tonne reduction came from the strong demand for Canadian export grain, which drew down year-end stocks. When combined with 75.9 million tonnes of new production, the grain supply grew to an unprecedented 80.8 million tonnes. This embodied a 29.1% increase over the previous crop year's 62.6 million tonnes. [Table 1A-2]

With a 639,500-tonne reduction in carry-forward stocks, Alberta posted the most substantive decline. This was followed by Saskatchewan, with a 113,100-tonne drop, along with decreases of 44,700 for British Columbia and 26,300 tonnes for Manitoba. With the exception of wheat, canola and rye, the carry-over for all major grain stocks moved sharply lower.

Figure 5: Western Canadian Grain Supply



3 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.

Section 2: Traffic and Movement

Indicator Description	Table	1999-00	2011-12	2012-13	2013-14 Q1	Q2	Q3	Q4	YTD	% VAR
Country Elevator Throughput										
Grain Throughput (000 tonnes) – Primary Elevators	2A-1	32,493.9	35,338.7	34,278.7	9,812.1	-	-	-	9,812.1	-0.6%
Railway Traffic										
Railway Shipments (000 tonnes) – All Grains	2B-1	26,439.2	29,291.0	29,606.8	8,483.1	-	-	-	8,483.1	-3.2%
Railway Shipments (000 tonnes) – Hopper Cars	2B-1	25,664.6	28,182.0	28,422.5	8,248.7	-	-	-	8,248.7	-2.6%
Railway Shipments (000 tonnes) – Non-Hopper Cars	2B-1	774.7	1,109.0	1,184.2	234.3	-	-	-	234.3	-20.6%
Special Crop Shipments (000 tonnes) – All Grains	2B-2	2,102.9	2,641.6	3,748.4	1,346.8	-	-	-	1,346.8	15.3%
Special Crop Shipments (000 tonnes) – Hopper Cars	2B-2	1,844.1	2,494.6	3,551.9	1,295.8	-	-	-	1,295.8	14.6%
Special Crop Shipments (000 tonnes) – Non-Hopper Cars	2B-2	258.7	147.0	196.5	51.0	-	-	-	51.0	38.7%
Hopper Car Shipments (000 tonnes) – Origin Province	2B-3									
Hopper Car Shipments (000 tonnes) – Primary Commodities	2B-4	25,664.6	28,182.0	28,422.5	8,248.7	-	-	-	8,248.7	-2.6%
Hopper Car Shipments (000 tonnes) – Detailed Breakdown	2B-5									
Hopper Car Shipments (000 tonnes) – Grain-Dependent Network	2B-6	8,685.9	8,496.1	8,222.4	2,602.5	-	-	-	2,602.5	1.7%
Hopper Car Shipments (000 tonnes) – Non-Grain-Dependent Network	2B-6	16,978.7	19,685.9	20,200.1	5,646.2	-	-	-	5,646.2	-4.4%
Hopper Car Shipments (000 tonnes) – Class 1 Carriers	2B-7	23,573.5	27,058.4	27,331.3	7,925.4	-	-	-	7,925.4	-2.8%
Hopper Car Shipments (000 tonnes) – Non-Class-1 Carriers	2B-7	2,091.0	1,123.6	1,091.3	323.3	-	-	-	323.3	4.5%
Terminal Elevator Throughput										
Grain Throughput (000 tonnes) – All Commodities	2C-1	23,555.5	26,896.9	26,922.6	6,922.6	-	-	-	6,922.6	-8.6%
Hopper Cars Unloaded (number) – All Carriers	2C-2	278,255	295,397	300,423	83,655	-	-	-	83,655	-9.8%
Hopper Cars Unloaded (number) – CN	2C-2	144,800	151,790	153,751	42,731	-	-	-	42,731	-10.8%
Hopper Cars Unloaded (number) – CP	2C-2	133,455	143,607	146,672	40,924	-	-	-	40,924	-8.7%

COUNTRY ELEVATOR THROUGHPUT

Country elevator throughput, as gauged by all road and rail shipments from the primary elevators situated across western Canada, decreased by 0.6% in the first three months of the 2013-14 crop year. Total shipments for the period fell to 9.8 million tonnes from 9.9 million tonnes a year earlier. Despite this 61,900-tonne reduction, by the close of the period it had become apparent that substantially more grain was being presented for movement than was being carried out, and that the elevator system was becoming inundated.

All provinces except Saskatchewan reported reduced grain shipments. Primary-elevator shipments from Alberta fell by 158,400 tonnes, or 5.0%, to 3.0 million tonnes from 3.2 million tonnes a year earlier. Manitoba followed with a 3.3% decrease in shipments, which fell to 1.8 million tonnes from 1.9 million tonnes. British Columbia, which posted the largest relative decline, saw shipments fall by 43.7%, to 69,900 tonnes from 124,200 tonnes. Partially offsetting these losses were heightened shipments from Saskatchewan, where throughput rose by 4.6%, to 4.9 million tonnes from 4.7 million tonnes a year earlier. [Table 2A-1]

RAILWAY TRAFFIC

The amount of regulated grain moved by rail to western Canadian ports during the first quarter of the 2013-14 crop year totaled 8.4 million tonnes, down 3.2% from the 8.8 million tonnes handled in the same period a year earlier. As in past years, the vast majority of this traffic, some 8.2 million tonnes, moved in covered hopper cars. The remaining 234,300 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, with their share falling to 2.8% from 3.4% a year earlier. [Table 2B-1]

Compared to the grain movement in general, special-crop shipments in the first three months of the 2013-14 crop year proved particularly

Figure 6: Primary Elevator Throughput

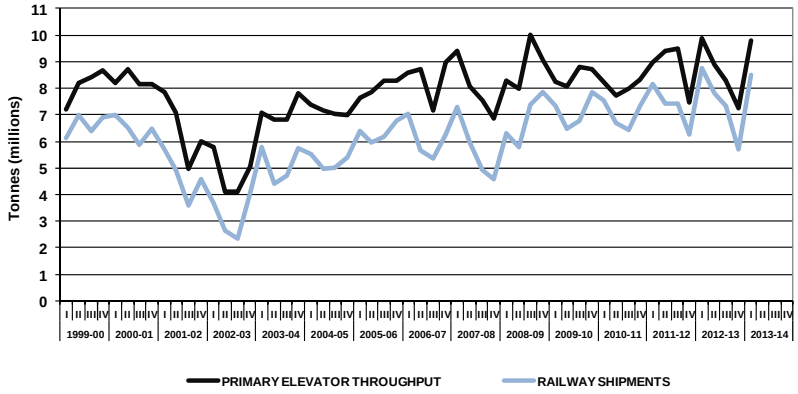
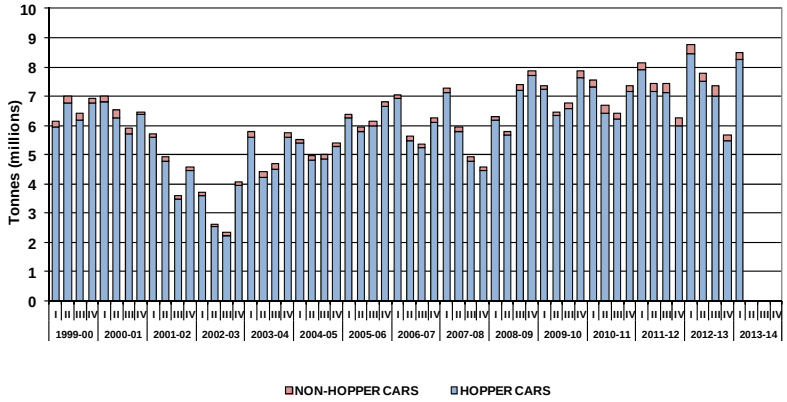


Figure 7: Railway Shipments – Hopper and Non-Hopper Cars



strong, increasing by 15.3%. This led to the setting of a new GMP record, with 1.3 million tonnes being shipped against 1.2 million tonnes a year earlier. Virtually all of this, 96.2%, moved in hopper cars, with shipments rising by 14.6%, to 1.3 million tonnes from 1.1 million tonnes. A more substantive 38.7% rise in non-hopper-car shipments (boxcars, containers and tankcars) resulted in their share of the overall movement rising to 3.8% from 3.2% a year earlier. [Table 2B-2]

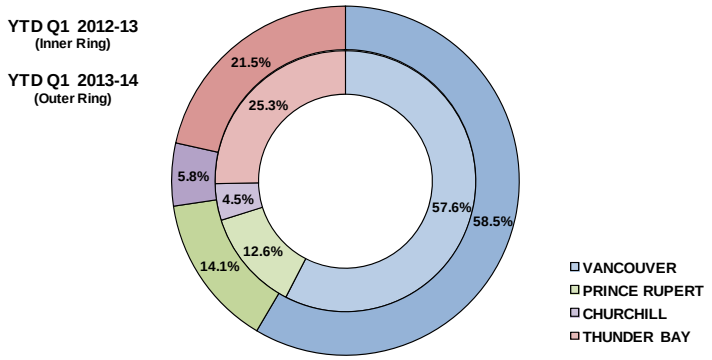
Hopper Car Movements

Western Canadian hopper-car shipments declined by 2.6% in the first three months of the 2013-14 crop year, falling to 8.2 million tonnes from the 8.5 million tonnes handled a year earlier. This differed markedly from the previously noted increases for both grain production and the overall grain supply, which rose by 33.4% and 29.1% respectively.

This result was the product of general traffic reductions from all western provinces except Saskatchewan. Alberta saw the largest drop in tonnage, with total shipments falling by 8.5%, to 2.7 million tonnes from 3.0 million tonnes a year earlier. This was followed by Manitoba, which posted an 11.7% decrease, with shipments slumping to 1.1 million tonnes from 1.2 million tonnes. These were furthered by a 44.9% decline in traffic from British Columbia, which fell to 42,600 tonnes from 77,200 tonnes. Opposing these losses was a 5.1% increase in the amount of grain shipped from Saskatchewan, which rose to 4.4 million tonnes from 4.2 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 can be 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 beginning of the GMP stems from 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.[4]

Figure 8: Railway Hopper Car Shipments – Destination Port



Notwithstanding these efficiency gains, the railways were ill prepared for the movement of so large a crop. In fact, both carriers suggested that their plan for grain-handling capacity was based on that supplied in the previous 2012-13 crop year. Although the grain industry accepted this limitation, the number of railcars they ordered for loading on a weekly basis soon began to swell well beyond that which the railways were capable of providing. By the close of the first quarter, the total number of railcars ordered at elevators across western Canada had reached 134,500, but the railways only committed to supplying cars for about 90%

4 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 tones, to about 89 tonnes from the 86 tonnes benchmarked in the base year.

of these orders. This left about 10% of the orders going without a commitment from the railways.[5] Yet the carriers appeared to be falling short of their own commitments as well. Although 83,700 railcars were unloaded at the four ports in western Canada during the first quarter, this appeared to be approximately 15% below what the carriers had committed to during the period.[6]

Destination Ports

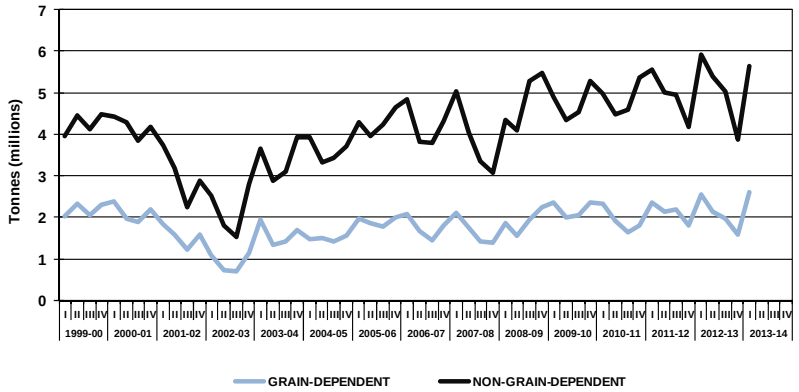
The port of Vancouver remained the principal export destination for western Canadian grain in the first three months of the 2013-14 crop year. Traffic to Vancouver decreased by 1.0%, to 4.8 million tonnes from the 4.9 million tonnes directed there a year earlier. However, the port's share of railway shipments increased, rising to 58.5% from 57.6%. In comparison, Prince Rupert posted a 9.3% increase in railway shipments, with volume climbing to 1.2 million tonnes from 1.1 million tonnes. The port also took a somewhat greater share of the overall movement, which rose to 14.1% from 12.6%. On a combined basis, these two west-coast ports handled 72.6 of the grain directed to export positions, earning them a moderately greater proportion of the total grain movement than the 70.2% share they secured a year earlier.

This shift towards westbound grain shipments, which became particularly pronounced in the second half of the preceding crop year, saw eastbound shipments slump noticeably in the first quarter. In fact, total shipments into Thunder Bay and Churchill declined by 269,000 tonnes, or 10.7%.

5 The number of railcars ordered serves as a proxy for the overall demand for carrying capacity. Those subsequently confirmed by the carriers (i.e., for which the carrier designates that a railcar will be supplied) serves as a stand-in for the available supply of carrying capacity. Owing to an indeterminate number of unconfirmed carry-over orders, the number of confirmed orders for a given period can only be regarded as an estimation of the maximum made available. The 90% confirmation rate estimated here suggests that at least 10% of the orders placed were beyond the servicing ability of the railways. These unconfirmed orders effectively denote a pent up, or unfilled, demand for railway carrying capacity.

6 Committed orders for the four ports through the first quarter totaled 100,700 railcars. The actual number of railcars unloaded fell 16.9% below this value.

Figure 9: Hopper Car Shipments – Grain-Dependent Originations



Rail deliveries into Thunder Bay fell by 17.1%, to 1.8 million tonnes from 2.1 million tonnes a year earlier. Consequently, the port's share of total railway hopper-car shipments also fell, to 21.5% from 25.3%. Providing some counterweight to this erosion was an increase in railway shipments into Churchill, which rose to 481,200 tonnes from 383,300 tonnes a year earlier. This also resulted in a traffic-share increase, which rose to 5.8% from 4.5%.

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 quarter of the 2013-14 crop year, the tonnage originated by the non-grain-dependent network decreased by 4.4%, falling to 5.6 million tonnes from 5.9 million tonnes a year earlier. At the same time, traffic originating at points on the grain-dependent network increased by 1.7%, effectively remaining unchanged at 2.6 million tonnes.

Notwithstanding seasonal gyrations, the non-grain-dependent network continues to garner a larger share of the overall traffic volume. During the first quarter, 68.4% of all the grain originated in western Canada was forwarded from points on the non-grain-dependent network. This value stands marginally above the 66.2% share garnered 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 31.6% from 33.8% over the same span of time. [Table 2B-6]

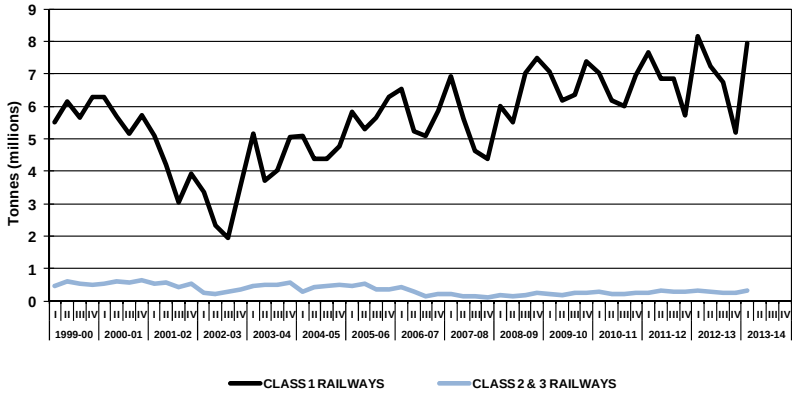
Class 1 and Non-Class-1 Originations

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 decreased by 2.8% in the first three months of the 2013-14 crop year, falling to 7.9 million tonnes from 8.2 million tonnes a year earlier. At the same time, the tonnage originated by the non-Class-1 carriers rose by 4.5%, to 323,300 tonnes from 309,500 tonnes. Much of this comparative gain was attributable to traffic originated by two shortline railways, the Lake Line Railway and the Long Creek Railroad, which were both established towards the close of the previous crop year's first quarter.

Despite the emergence of several new shortline-railways in recent years, the traffic originated by non-Class 1 carriers has declined fairly significantly over the course of the GMP. In the first three months of 2013-14 crop year their share of total originations amounted to just 3.9%, 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 69.5% 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. In fact, producer-car loading has accounted for approximately two-thirds of the grain originated by these carriers in recent years. This proportion, which

Figure 10: Hopper Car Shipments – Carrier Originations



is about four times greater than the share producer cars garnered in the first year of the GMP, underscores that dependence. Even following the sharp decline in producer-car loading experienced in the 2012-13 crop year, these shipments still remain an important commercial foundation.

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, decreased by 8.6% in the first quarter of the 2013-14 crop year, falling to 6.9 million tonnes from 7.6 million tonnes in the same period a year earlier. It is worth noting that this reduction exceeded the 3.2% decline in railway shipments, suggesting that the terminal elevators were drawing down their stocks in the face of insufficient railway deliveries. [Table 2C-1]

Reduced throughputs were noted for all ports save that of Churchill. The largest volumes continued to funnel through the west coast ports of

Vancouver and Prince Rupert. For the largest of these, Vancouver, total marine shipments decreased by 6.7%, to 3.9 million tonnes from 4.2 million tonnes a year earlier. This represented 56.3% of the system's total throughput. Prince Rupert posted a greater loss, with shipments falling by 7.5%, to 1.0 million tonnes from 1.1 million tonnes. When combined, the tonnage passing through these two west coast ports represented 70.5% of the overall total, a modest gain over the 69.3% share garnered a year earlier.

Of course, the increase posted by the west coast ports was reflected in a reduction for the GHTS's other two ports. The combined share secured by the ports of Thunder Bay and Churchill in the first quarter of the 2013-14 crop year fell to 29.5% from 30.7% a year earlier. Much of this loss was the result of a sharp downturn in shipments through Thunder Bay, which fell by 20.6%, to 1.5 million tonnes from 1.9 million tonnes. Conversely, Churchill, which traditionally handles a much lesser volume, saw its throughput increase by 24.6%, to 524,500 tonnes from 421,000 tonnes.

Terminal Elevator Unloads

The number of covered hopper cars unloaded at terminal elevators in the first three months of the 2013-14 crop year decreased by 9.8%, falling to 83,655 cars from 92,740 cars a year earlier. The Canadian National Railway (CN) experienced a somewhat steeper 10.8% decline, with the number of hopper cars unloaded dropping to 42,731 from 47,923 a year earlier. In comparison, the Canadian Pacific Railway's (CP) handlings decreased by a lesser 8.7%, to 40,924 cars from 44,817 cars. As a result, CN retained its standing as the largest grain handling railway in western Canada, with a share of 51.1% against 48.9% for CP. [Table 2C-2]

Although the movement of grain was largely funneled through the west coast ports of Vancouver and Prince Rupert, there were some notable shifts in the amount of grain handled by each port. Traffic destined to Vancouver fell by 7.7%, with 46,231 cars unloaded versus 50,083 cars a year earlier. Of particular interest was the relative division between CN

Figure 11: Terminal Elevator Throughput

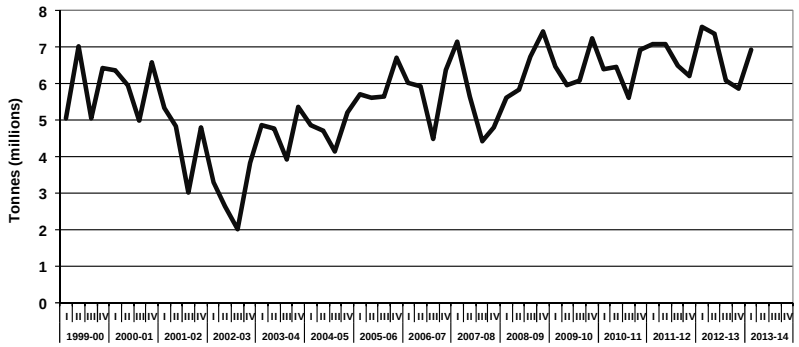
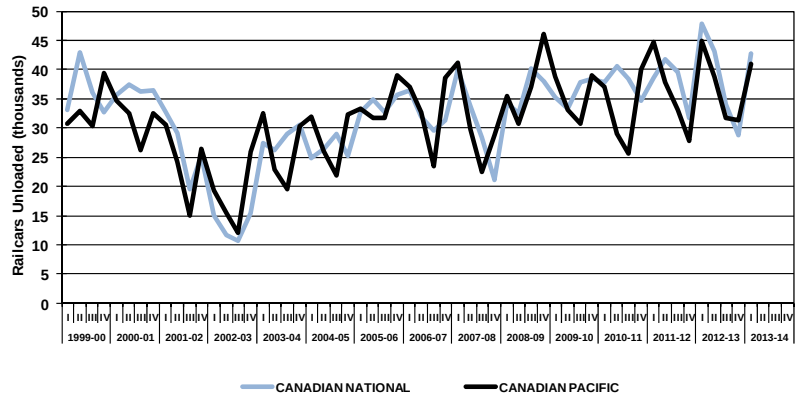


Figure 12: Terminal Elevator Unloads – Delivering Carrier



and CP, with the former carrier's handlings into the port falling by 18.3% against a 0.8% gain for CP. Conversely, CN's handlings into Prince Rupert grew by 1.9%, rising to 12,579 cars from 12,345 cars a year earlier.

The first quarter also brought a significant reduction in the amount of grain shipped to Thunder Bay, with total handlings declining by 24.4%, to 19,360 cars from 25,596 cars a year earlier. CN saw its handlings into the port fall by 24.6%, unloading 6,475 cars against 8,587 cars the year previous. CP posted a comparable decrease, with total shipments falling to 12,885 cars from 17,009 cars. In contrast, eastbound shipments into Churchill climbed sharply, increasing by 16.3%, to 5,485 cars from 4,716 cars a year earlier.

Section 3: Infrastructure

Indicator Description	Table	1999-00	2011-12	2012-13	2013-14 Q1	Q2	Q3	Q4	YTD	% VAR
Country Elevator Infrastructure										
Delivery Points (number)	3A-1	626	271	274	272	-	-	-	272	-0.7%
Elevator Capacity (000 tonnes)	3A-1	7,443.9	6,739.7	6,851.9	6,877.6	-	-	-	6,877.6	0.4%
Elevators (number) – Province	3A-1									
Elevators (number) – Railway Class	3A-2	917	386	391	386	-	-	-	386	-1.3%
Elevators (number) – Grain Company	3A-3									
Elevators Capable of MCB Loading (number) – Province	3A-4									
Elevators Capable of MCB Loading (number) – Railway Class	3A-5	317	246	245	242	-	-	-	242	-1.2%
Elevators Capable of MCB Loading (number) – Railway Line Class	3A-6									
Elevator Closures (number)	3A-7	130	39	29	11	-	-	-	11	-62.1%
Elevator Openings (number)	3A-8	43	59	34	6	-	-	-	6	-82.4%
Delivery Points (number) – Accounting for 80% of Deliveries	3A-9	217	82	89	n/a	-	-	-	n/a	n/a
Railway Infrastructure										
Railway Infrastructure (route-miles) – Total Network	3B-1	19,390.1	17,830.3	17,600.2	17,600.2	-	-	-	17,600.2	0.0%
Railway Infrastructure (route-miles) – Class 1 Network	3B-1	14,503.0	15,029.0	14,907.3	15,011.5	-	-	-	15,011.5	0.7%
Railway Infrastructure (route-miles) – Non-Class-1 Network	3B-1	4,887.1	2,801.3	2,692.9	2,588.7	-	-	-	2,588.7	-3.9%
Railway Infrastructure (route-miles) – Non-Grain-Dependent Network	3B-1	14,513.5	14,245.1	14,135.6	14,135.6	-	-	-	14,135.6	0.0%
Railway Infrastructure (route-miles) – Grain-Dependent Network	3B-1	4,876.6	3,585.2	3,464.6	3,464.6	-	-	-	3,464.6	0.0%
Served Elevators (number)	3B-3	884	358	365	361	-	-	-	361	-1.1%
Served Elevators (number) – Class 1 Carriers	3B-3	797	334	340	336	-	-	-	336	-1.2%
Served Elevators (number) – Non-Class-1 Carriers	3B-3	87	24	25	25	-	-	-	25	0.0%
Served Elevators (number) – Grain-Dependent Network	3B-3	371	115	114	114	-	-	-	114	0.0%
Served Elevators (number) – Non-Grain-Dependent Network	3B-3	513	243	251	247	-	-	-	247	-1.6%
Served Elevator Capacity (000 tonnes)	3B-3	7,323.0	6,602.4	6,714.2	6,741.9	-	-	-	6,741.9	0.4%
Served Elevator Capacity (000 tonnes) – Class 1 Carriers	3B-3	6,823.2	6,428.0	6,528.1	6,555.3	-	-	-	6,555.3	0.4%
Served Elevator Capacity (000 tonnes) – Non-Class-1 Carriers	3B-3	499.7	174.4	186.2	186.6	-	-	-	186.6-	0.2%
Served Elevator Capacity (000 tonnes) – Grain-Dependent Network	3B-3	2,475.4	1,868.2	1,848.7	1,849.9	-	-	-	1,849.9	0.1%
Served Elevator Capacity (000 tonnes) – Non-Grain-Dependent Network	3B-3	4,847.6	4,734.2	4,865.5	4,892.1	-	-	-	4,892.1	0.5%
Terminal Elevator Infrastructure										
Terminal Elevators (number)	3C-1	15	16	15	15	-	-	-	15	0.0%
Terminal Elevator Storage Capacity (000 tonnes)	3C-1	2,678.6	2,213.8	2,213.0	2,403.2	-	-	-	2,403.2	8.6%

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 2012-13 crop year, that number had fallen by 61.1%, to 391, making this decline one of the most visible facets of the changes brought to the GHTS since the beginning of the GMP.[7] [Table 3A-1]

The first quarter of the 2013-14 crop year saw little meaningful change, with the elevator network losing another five facilities. This saw the total number of elevators in western Canada fall to 386, and brought the accumulated loss since the beginning of the GMP to 618 facilities, or 61.6%. The marginal scope of the changes witnessed in recent years continues to suggest that grain-elevator rationalization has largely concluded, and that the network's overall size has effectively 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 2012-13 crop year the scope of this network had been reduced by 60.0%, to 274 delivery points from the 685 that had been in place at the beginning of the GMP. This count decreased marginally in the first quarter of the 2013-14 crop year, with the overall number falling by two to 272. This brought the net reduction in delivery points during the GMP to 60.3%.

Provincial Distribution

At the close of the 2013-14 crop year's first quarter, 196 of western Canada's licensed elevators were situated in Saskatchewan. These facilities constituted 50.8% of the system's active total; a proportion similar to that held by the province at the beginning of the GMP. This was followed by Manitoba and Alberta, whose corresponding 99 and 85 elevators accounted for shares of 25.6% and 22.0% respectively. The

7 The reduction in licensed elevators cited here reflects the net change arising from various elevator openings and closures.

Figure 13: Licensed Grain Elevators and Delivery Points

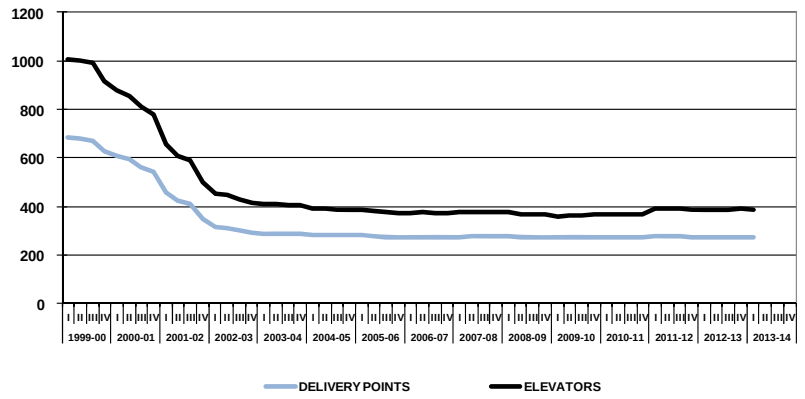
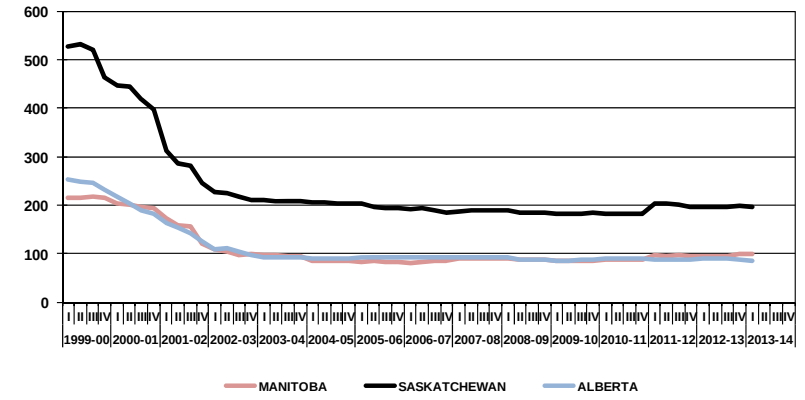


Figure 14: Licensed Grain Elevators – Provincial Distribution



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 331, or 62.8%, of its elevators. In comparative terms, the 167-elevator reduction in Alberta represented a slightly greater 66.3%. Manitoba followed with a 54.2%, or 117-elevator, reduction in its facilities. The comparable nature of these reductions indicates that elevator rationalization has been broadly based, and that the facilities of any single province have not been unduly targeted.

Elevator Storage Capacity

Despite a 61.6% decline in the overall number of elevators, the network's storage capacity stands only 2.1% below the 7.0 million tonnes recorded at the outset of the GMP. This differential reflects the character of the tactical transformation that had taken place: that the grain companies were substituting the handling capacity inherent in their existing wood-crib elevators with that provided by a lesser number of more efficient high-throughput facilities. In fact, the capacity added through their investment in these larger facilities temporarily outpaced that removed by the closure of older elevators early in the GMP, raising the system's total storage capacity to a level of almost 7.6 million tonnes. But soon the reverse became true, and by the close of the 2003-04 crop year total 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 2012-13 crop year, it had risen to somewhat less than 6.9 million tonnes. The first three months of the 2013-14 crop year saw another 25,700 tonnes of storage capacity added to the system. This 0.4% gain effectively raised total storage capacity marginally closer to 6.9 million tonnes, a value not far removed from that benchmarked in the GMP's base year.

Figure 15: Change in Licensed Elevators and Storage Capacity

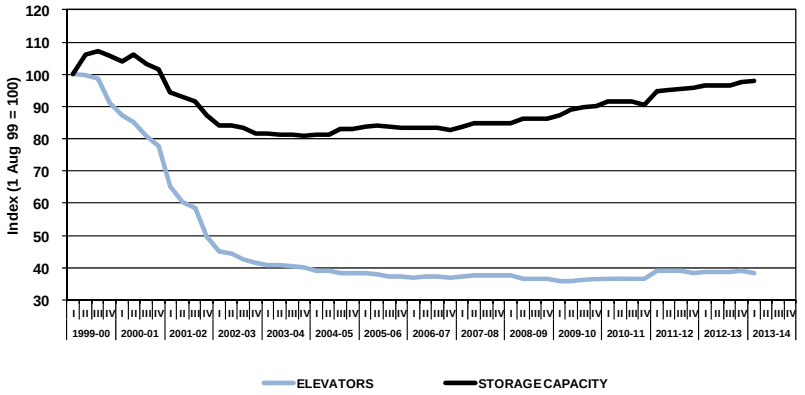
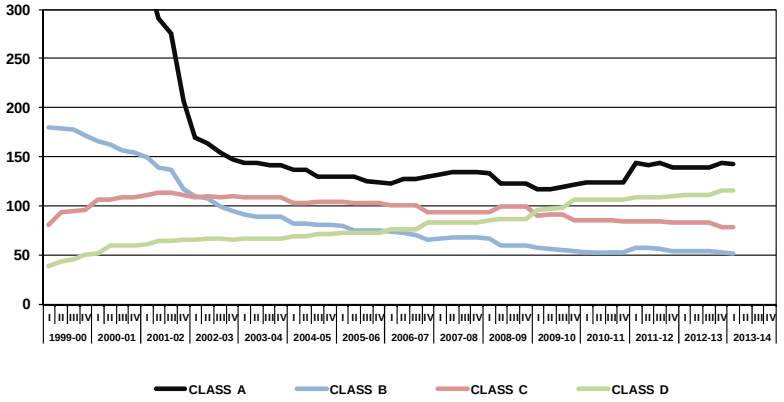


Figure 16: Licensed Elevators – Facility Class



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

Within this framework, the composition of the elevator network can be seen to have changed significantly since the beginning of the GMP. The most striking aspect of this has been the decline in the number of smaller elevators. Over the course of the last 15 years the number of licensed Class A elevators has been reduced by 79.9%, to 142 from 705. This was complemented by a 71.7% reduction in the number of licensed Class B elevators, which fell to 51 from 180.

Juxtaposed against this has been a fairly steady rise in the number of licensed high-throughput facilities. In the initial years of the GMP this was manifest in numerical increases for Class C as well as Class D elevators. But the physical expansion of Class C facilities has resulted in many being converted into Class D facilities. As a result, the number of Class C facilities has actually fallen below its base-year level, with a net decline of 3.7%, to 78 from 81. In comparison, the number of Class D elevators has effectively tripled, rising to 115 from 38.

These statistics illustrate that the prime target in elevator rationalization has been the conventional wood-crib facility. Of the 990 elevators closed since the beginning of the GMP, 739 related to the shutdown of Class A facilities.[9] 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 used to encourage grain to move in blocks of 25 or more railcars at a time. [Table 3A-7]

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.[10] As a result, over the course of the GMP, a total of 160 Class B facilities also closed. Together, Class A and B facilities account for 90.8% of all recorded elevator closures.

The opportunity cost associated with being unable to ship grain in 100-car blocks also roused some grain companies into expanding the physical capacity of several Class C elevators. Since the beginning of the GMP, such expansion has resulted in the upgrading of 35 facilities, along with their ensuing reclassification as Class D facilities. This evolution has served to raise the total number of Class-C-elevator closures during this period to 59. Likewise, Class D facilities posted the smallest number of closures, with just 32 recorded.

While the emergence of independent grain operations also provided Class A and B facilities with a majority of elevators openings during this same period, 231 out of 372, the proportion accorded to them was a noticeably lower 62.1%. Compared to the 90.8% share taken in elevator closures, this lower value again underscores the shift towards the use of high-

8 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.

9 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.

10 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.

throughput facilities, which accounted for 141, or 37.9% of the overall elevator openings. [Table 3A-8]

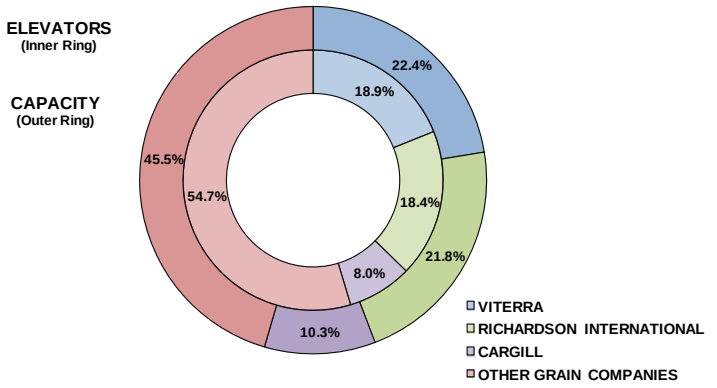
Since the close of the 2008-09 crop year, approximately half of the GTHS's elevators have been comprised of high-throughput facilities. More importantly, these facilities have claimed the lion's share of the system's storage capacity since the second year of the GMP. At the close of the first quarter of the 2013-14 crop year, high-throughput facilities represented 50.0% of system elevators and 78.5% of its storage capacity, with both standing significantly above their respective base-year values of 11.9% and 39.4%.

Grain Companies

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

The predecessors of today's Viterra Inc. posted what amounts to the deepest overall reduction, with a net decrease of 627 facilities, or 89.6%, through the close of the first quarter of the 2013-14 crop year.[11] The next deepest cut, 47.5%, was posted by Cargill Limited. This was followed in turn by Richardson International and Paterson Grain, which saw reductions of 32.4% and 30.0% respectively.[12] Rounding out the field was Parrish and Heimbecker, which posted a 19.2% decrease. [Table 3A-3]

Figure 17: Licensed Elevators and Capacity – Q1 2013-14 Crop Year



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 157.1% increase in the number of elevators operated by smaller grain companies, which has climbed to 144 from 56.

Despite this numerical shift, Viterra, Richardson International and Cargill remain the dominant handlers of grain in western Canada, accounting for

11 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 627 closures cited here represent the net reduction posted by Viterra and its predecessor companies, which had a combined total of 700 elevators at the outset of the GMP.

12 In advancing its acquisition of Viterra Inc in December 2012, Glencore International PLC had agreed to a sale of Viterra's interest in 19 country and two terminal elevators to Richardson International. This asset transfer, which was finalized on 1 May 2013, effectively reduced the size differential between the two largest grain companies in western Canada. Up until Richardson International assumed control of these assets, the company had reduced the scope of its elevator network by 49.5%.

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 tonnage collected at fewer than half of the GHTS's delivery points. In the 2012-13 crop year – the last for which statistics are available – 89 of the GHTS's 220 active delivery points took in 80% of the grain delivered. Although this 40.5% share is greater than the 33.5% recorded in the GMP's base year, it still suggests that deliveries remain highly concentrated within a 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.[13] Although the railway network has contracted, the reduction has proven substantially less than that of the elevator system it serves. By the close of the 2012-13 crop year, the net reduction in western Canadian railway infrastructure amounted to just 9.6%, with the network's total mileage having been reduced to 17,600.2 route-miles overall. The largest share of this 1,868.0-route-mile reduction came from the abandonment of 1,490.1 route-miles of light-density, grain-dependent branch lines.[14] [Table 3B-1]

13 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.

14 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

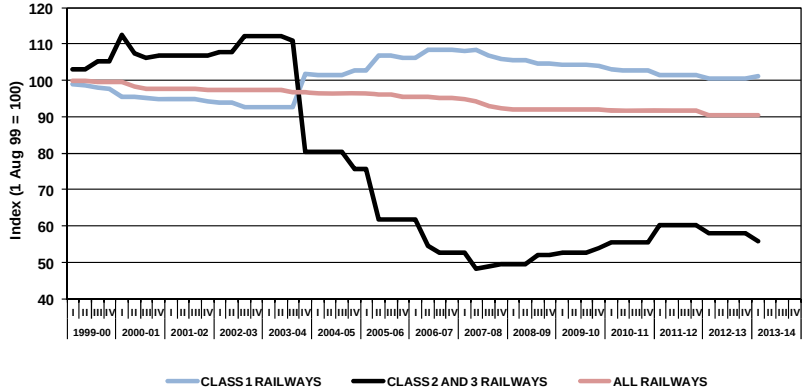
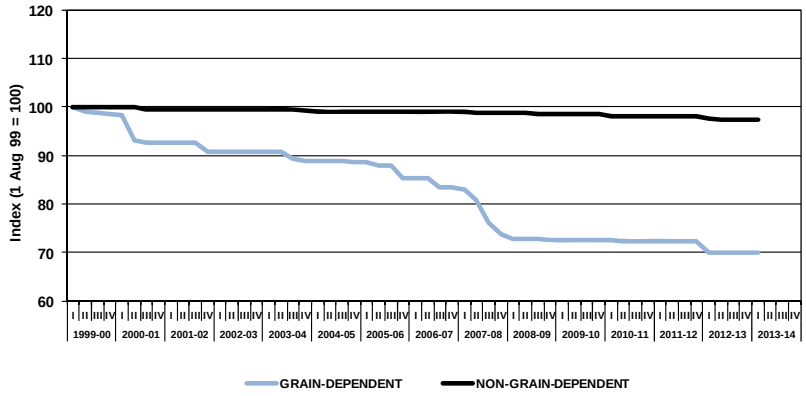


Figure 19: Change in Route-Miles – Railway Network



Of particular interest to the GMP are the prairie shortlines, which had been established with an eye towards preserving railway service on what the Class 1 carriers had come to regard as uneconomic branch lines.[15] While many of these branch lines were grain dependent, most prairie 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 – a large portion of which was tied to increased producer-car loading – they ultimately could not prevent the grain companies from closing the smaller elevators that underpinned their commercial activity. Following an initial expansion that saw the effective doubling of both carriers and route-miles, a number of these prairie shortlines began to falter.[16] By the midway point in the 2007-08 crop year this network had shed about one-quarter of its infrastructure, reaching a low of 1,002.5 route-miles.[17]

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 2012-13 crop year, a further nine prairie shortlines had been established, effectively raising the total number of carriers to 17 with operations over 1,497.7 route-miles of track.[18]

However, the commercial fragility of the shortline industry was revealed yet again when the Kelowna Pacific Railway (KPR) went into receivership after suspending operations on 5 July 2013. The KPR, which operated over 104.2 route-miles of track leased from CN, had been suffering from the effects of a steadily eroding traffic base for several years.[19] With no grain traffic having been originated by the KPR since the inception of the GMP, there was no direct impact on the workings of the GHTS. Nevertheless, much of the operation reverted back to CN control in September 2013, which moved to resume service between Kamloops and Lumby while marking the remainder for discontinuance.

15 Prairie shortlines denote a geographic subset of the Class 3 railways cited previously. As the name implies, these carriers are physically based on the prairies and are focused chiefly on gathering grain. At the beginning of the GMP there existed but five: Central Manitoba Railway; Carlton Trail Railway; Central Western Railway, Red Coat Road and Rail Ltd.; and Southern Rails Cooperative Ltd.. These carriers had operations extending over some 623.7 route-miles of track.

16 This initial expansion reached its zenith towards the close of the 2002-03 crop year, and encompassed 1,313.6 route-miles of track operated by ten carriers.

17 As at 31 January 2008 there were just eight prairie shortline railways remaining: Carlton Trail Railway; Central Manitoba Railway; Fife Lake Railway; Great Western Railway Ltd.; Red Coat Road and Rail Ltd.; Southern Rails Cooperative Ltd.; Thunder Rail Ltd.; and Wheatland Railway Inc.

18 The nine shortline railways established during this period were: Torch River Rail Inc.; Boundary Trail Railway Co.; Great Sandhills Railway; Last Mountain Railway; Battle River Railway; Stewart Southern Railway; Big Sky Rail; Lake Line Railroad; and Long Creek Railroad.

19 The Kelowna Pacific Railway commenced operations in January 2000, providing rail service to customers located along two sections of track leased from CN: the 89.8-route-mile Okanagan Subdivision, which extended from Kamloops to Kelowna; and a 14.4-route-mile offshoot known as the Lumby Subdivision. Service over the KPR also employed a 14.7 route-mile section of connecting track between Armstrong and Vernon, which it jointly operated with the Okanagan Valley Railway until that carrier's suspension of operations in 2009.

These actions produced no immediate change in the scope of the railway network in western Canada during the first quarter, which stood at 17,600.2 route-miles. However, the Class 1 railway network increased by 0.7%, to 15,011.5 route-miles from 14,907.3 route-miles. Naturally, the infrastructure tied to non-Class-1-carrier operations decreased by a corresponding amount, falling by 3.9%, to 2,588.7 route-miles from 2,692.9 route-miles.

Local Elevators

As previously outlined, the GHTS's elevator infrastructure has been transformed more substantively over the course of the last 15 years than has the railway network that services it. In broad terms, these facilities have decreased by 63.1% in number, to 361 from 979, and by 2.8% in terms of associated storage capacity, to 6.7 million tonnes from 6.9 million tonnes.[20]

These reductions, however, manifested themselves in noticeably different ways for the Class 1 and non-Class 1 railways. Through to the end of the first quarter of the 2013-14 crop year the decline in the number of elevators tied to each group proved roughly analogous, 62.5% against 69.5% respectively. Yet the change in associated storage capacities was noticeably different, with a marginal increase of 1.5% for elevators local to Class 1 carriers set against a 60.9% decline for elevators local to the non-Class-1 carriers. [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.[21]

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

21 As at 31 October 2013 there were 192 high-throughput elevators served by rail. Of these, 184 were served by CN and CP.

Figure 20: Change in Local Elevators – Railway Class

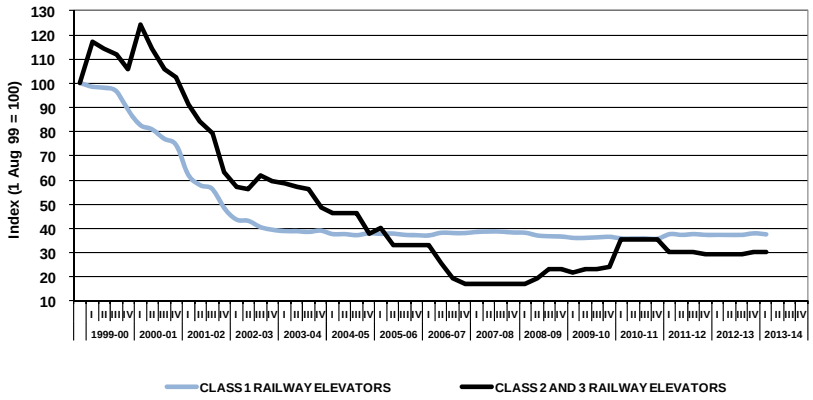
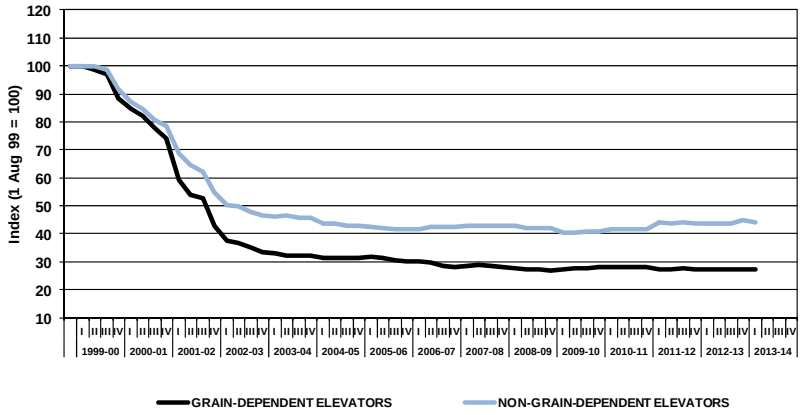
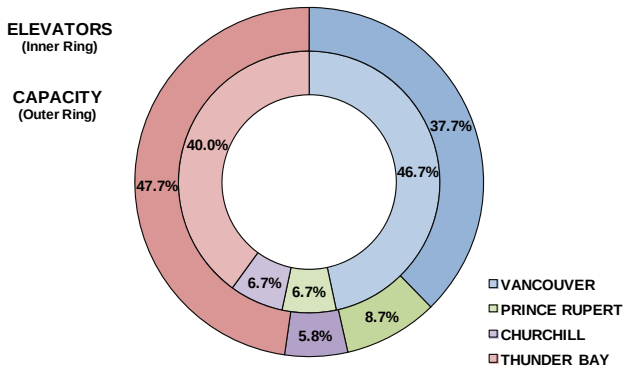


Figure 21: Change in Local Elevators – Branch Line Class



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 55.8%, with the number of elevators having fallen to 247 from 559. The change in associated storage capacity shows an even greater contrast, with that of the grain-dependent network falling by 25.6%, to 1.8 million tonnes, while that of the non-grain-dependent network actually increased by 10.0%, to almost 4.9 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.

Figure 22: Terminal Elevators – Q1 2013-14 Crop Year



TERMINAL ELEVATOR INFRASTRUCTURE

The first quarter of the 2013-14 crop year brought additional changes to the licensed terminal elevator network which, although remaining comprised of 15 facilities, saw an 8.6% increase in storage capacity, to 2.4 million tonnes from 2.2 million tonnes. This compares to a network of 14 elevators with 2.6 million tonnes of storage capacity benchmarked in the GMP's base year.[22] [Table 3C-1]

From the outset of the GMP, Thunder Bay has been home to the majority of the GHTS's terminal-elevator assets. But the compound effects of a decade's worth of incremental change had steadily eroded its position. As the 2012-13 crop year neared its close, that position was weakened still further with the de-licensing of the Viterra C facility.[23] This terminal elevator, which had sat largely idle since 2001, was transferred along with other Viterra assets to Richardson International under the terms of an agreement made with Glencore International PLC in advance of the latter's takeover of Viterra in December 2012.[24] Following its necessary rehabilitation, Richardson International relicensed this facility towards the close of the first quarter, restoring its former 231,030 tonnes of storage capacity.

Concurrent with this, Cargill Limited and Parrish and Heimbecker Limited (P&H) announced that they had signed an agreement calling for the joint

22 Beyond the change in its physical scope, the network was affected by a number of changes in terminal ownership. Much of this was tied to the various corporate mergers and acquisitions made since the beginning of the GMP. Those having the most bearing on terminal ownership came from the merger of Agricore Cooperative Ltd. and United Grain Growers Limited, which combined to form Agricore United in 2001. This entity was itself bought out by Saskatchewan Wheat Pool in 2007, which subsequently rebranded itself as Viterra Inc.

23 At the time of its de-licensing, the storage capacity of the Viterra C terminal was formally listed as being only 800 tonnes. Until downgraded a year earlier, this facility had previously been licensed with 231,030 tonnes of storage capacity.

24 At the beginning of the GMP this 231,030-tonne terminal elevator was operated by United Grain Growers Limited, but has remained largely inactive since the company was merged with Agricore Cooperative to form Agricore United (AU) in 2001. Ownership of the facility passed to Saskatchewan Wheat Pool following that company's acquisition of AU in 2007, with its subsequent rebranding as Viterra Inc. Concurrent with its planned takeover of Viterra, Glencore International PLC announced in March 2012 that it had entered into an agreement with Richardson International for the sale of certain Viterra assets, including the Viterra C terminal elevator. The finalization of this sale on 1 May 2013 gave Richardson International full ownership of the facility, which was de-licensed that same day.

operation of the existing Cargill terminal in Thunder Bay. The new venture, which was licensed as Superior Elevator ULC on 1 August 2013, provided both companies with an opportunity to combine their commercial activities under one roof, thus improving efficiency and promoting cost reduction. And while P&H's 40,800-tonne was de-licensed at the same time, the company retained the right to direct commodities not handled by the new joint venture there in future.

In view of these changes, Thunder Bay remained home to six licensed terminal elevators, but its associated storage capacity increased by 19.9%, to 1.1 million tonnes. This gave the port a 40.0% share of the system's elevators and a 47.7% share of its licensed storage capacity; both down from the 50.0% shares benchmarked 15 years earlier.

Aside from Thunder Bay, there were no other changes to the makeup of the terminal elevator system in western Canada during the first quarter. Even so, its changes did have an impact on the relative standing accorded the other ports. Vancouver, which had seen its terminal elevators increase to seven from five over the course of the previous 15 years, now accounted for 46.7% of the system's facilities and 37.7% of its licensed storage capacity as compared to their corresponding base-year values of 35.7% and 36.3%.

Similarly, 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 8.7% and 5.8% respectively.

Section 4: Commercial Relations

Indicator Description	Table	1999-00	2011-12	2012-13	2013-14 Q1	Q2	Q3	Q4	YTD	% VAR
Trucking Rates										
Composite Freight Rate Index – Short-haul Trucking	4A-1	100.0	162.2	162.2	162.2	-	-	-	162.2	0.0%
Country Elevators Handling Charges										
Composite Rate Index – Receiving, Elevating and Loading Out	4B-1	100.0	122.9	123.5	124.9	-	-	-	124.9	1.2%
Composite Rate Index – Dockage	4B-1	100.0	154.1	154.2	154.4	-	-	-	154.4	0.1%
Composite Rate Index – Storage	4B-1	100.0	187.8	189.9	189.9	-	-	-	189.9	0.0%
Railway Freight Rates										
Composite Freight Rate Index – CN Vancouver	4C-1	100.0	112.4	135.1	130.1	-	-	-	130.1	-3.7%
Composite Freight Rate Index – CP Vancouver	4C-1	100.0	114.8	140.3	134.7	-	-	-	134.7	-4.0%
Composite Freight Rate Index – CN Thunder Bay	4C-1	100.0	136.0	141.4	144.1	-	-	-	144.1	1.9%
Composite Freight Rate Index – CP Thunder Bay	4C-1	100.0	123.5	143.9	144.0	-	-	-	144.0	0.1%
Effective Freight Rates ($ per tonne) – CTA Revenue Cap	4C-3	n/a	$31.37	$33.99	n/a	-	-	-	n/a	n/a
Terminal Elevator Handling Charges										
Composite Rate Index – Receiving, Elevating and Loading Out	4D-1	100.0	146.5	149.4	149.6	-	-	-	149.6	0.1%
Composite Rate Index – Storage	4D-1	100.0	178.7	179.4	179.4	-	-	-	179.4	0.0%

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.[25]

But the 2010-11 crop year saw oil prices regain a lot of lost ground, reaching as much as $110 US per barrel by April 2011. This ultimately raised fuel prices and brought new pressure to bear on the cost of moving grain by truck. As a result, the composite price index for short-haul trucking rose to a GMP high of 162.2 by the close of the 2010-11 crop year. Although fuel prices remained volatile throughout the ensuing 2011-12 and 2012-13 crop years, trucking rates varied little. Much the same was observed in the first quarter of the 2013-14 crop year. As a result, the composite price index stood unchanged at 162.2. [Table 4A-1]

COUNTRY ELEVATOR HANDLING CHARGES

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

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

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

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

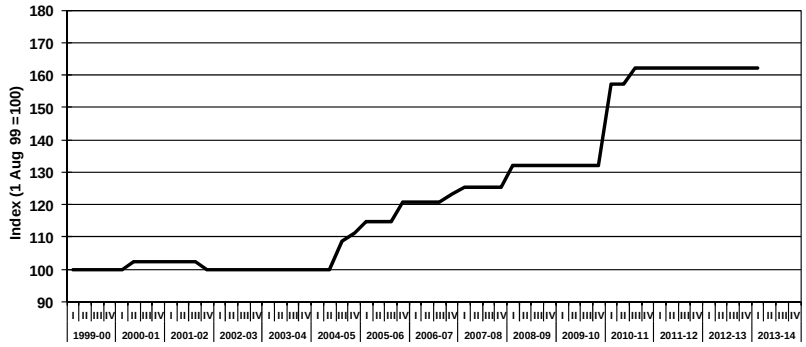
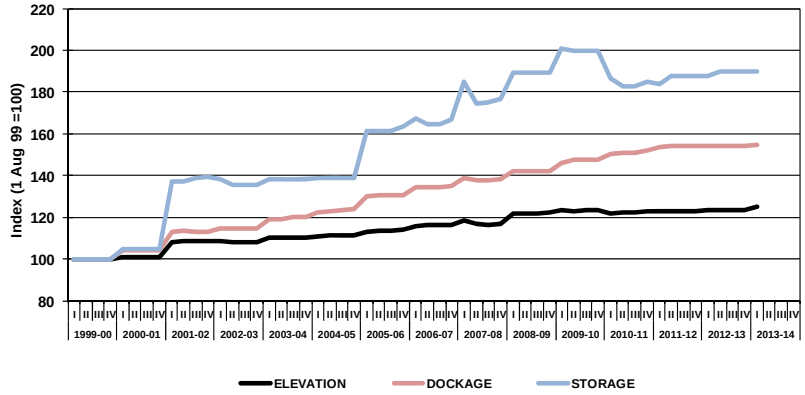


Figure 24: Change in Primary Elevator Handling Charges



the GMP, the rates for all of these services have risen considerably. The smallest increases have been in those tied to the receiving, elevating and loading out of grain. Through to the end of the 2012-13 crop year, these costs had risen by 23.5%. The first quarter of the 2013-14 crop year brought a further escalation in these rates, with the overall composite price index rising by 1.2%, to 124.9.

The rates associated with the removal of dockage have increased at a somewhat faster pace. Through to the end of the 2012-13 crop year, these rates had already increased by 54.2%. Minor changes in the first quarter resulted in the composite price index rising by 0.1%, to 154.4.

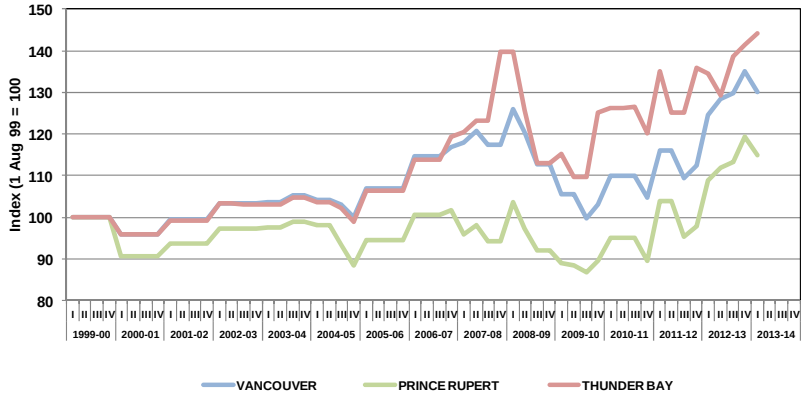
The most substantive rate escalations observed thus far have related to elevator storage. Much of the initial price shock came towards the end of the 2000-01 crop year, when these rates were raised by a factor of almost one-third. Since then they have continued to climb, rising by 89.9% through to the end of the 2012-13 crop year.[26] With no changes to these rates recorded during the first quarter of 2013-14 crop year, the composite price index remained at 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 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]

26 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



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.

Although the Canadian Transportation Agency brought forward a 1.8% reduction in the Volume-Related Composite Price Index for the 2013-14 crop year, both CN and CP followed with a mix of increases as well as decreases to their single-car freight rates in the first quarter.[27] CN's initial pricing actions came in August 2013, when it raised its eastbound

27 See Canadian Transportation Decision Number 161-R-2013 dated 30 April 2013.

rates into Thunder Bay and Churchill by an average of 1.9% and 4.1% respectively.[28] In contrast, the carrier's single-car rates into Vancouver and Prince Rupert, which were initially extended into the new crop year, were decreased by an average of 3.7% in September. This directional distinction was equally evident in the pricing actions taken by CP at the beginning of the crop year, which effectively held the single-car rates on movements into Thunder Bay unchanged while reducing those into Vancouver by 4.0%.

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 first quarter, the single-car rates applicable on the movement of grain to the jointly served ports of Vancouver and Thunder Bay have increased by noticeably different amounts: 32.4% and 44.1% respectively. The overall gain for Churchill was consistent with these values, rising by 44.3%. However, Prince Rupert, which benefited from a change to the rate structure more than a decade ago, posted an overall increase of just 15.0%.

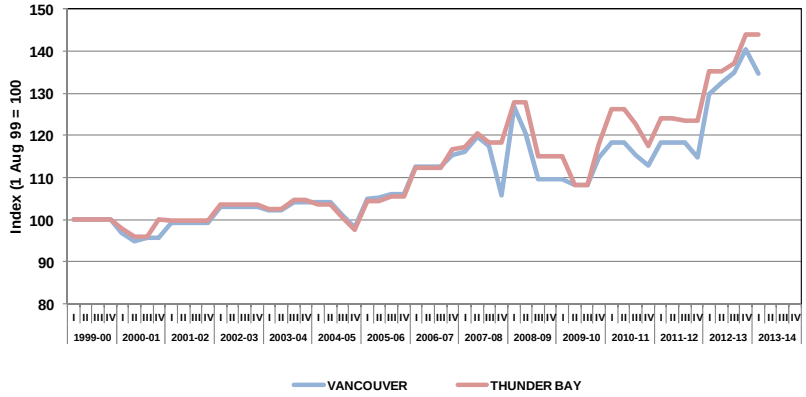
Taken altogether, these increases are consistent with the 29.2% escalation in revenues allowed by the Canadian Transportation Agency since the Maximum Revenue Entitlement (revenue cap) came into effect 14 years earlier. Moreover, they also suggest that the railways are more favourably disposed towards 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 quarter of the 2013-14 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]

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



28 CN's single-car rates to Churchill are published in accordance with the port's shipping season. The 4.1% increase cited here relates to the rates that were in place at the close of the 2012-13 crop year.

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 2012-13 crop year these ranged from a low of about $9.79 per tonne on wheat delivered at Thunder Bay, to a high of $16.50 per tonne on oats shipped to Churchill.

The first quarter of the 2013-14 crop year brought virtually no change to these rates. The exception was to be found at Vancouver, where a 3.6% increase in the rate for handling canola lead to a 0.1% rise in the composite price index, which rose to 149.6 from 149.4. [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. No changes were noted to any of these rates in the first quarter of the 2013-14 crop year. As such, the composite price index on storage remained unchanged at 179.4.

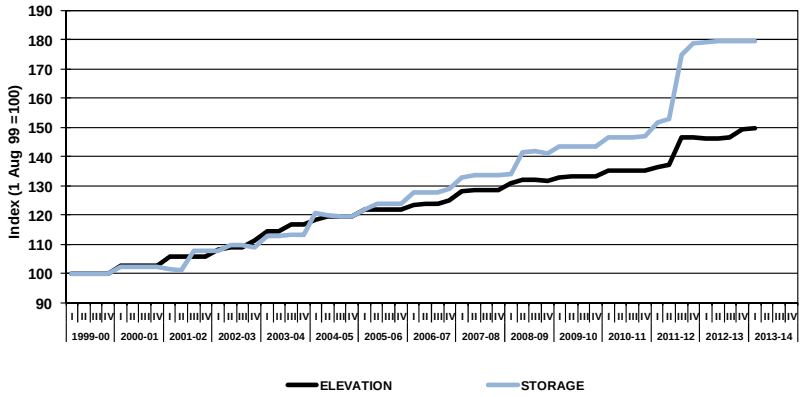
COMMERCIAL DEVELOPMENTS

Giant Crop Confronts Grain Handling and Transportation System

Following a late start to the growing season, the summer of 2013 provided ideal growing conditions. Western Canadian farmers began harvesting a crop of unprecedented size in August. Reports of substantially greater yields and a potential bumper crop had begun to circulate in the late summer. Even so, few within the grain industry could have anticipated that production would stand a full 25% above the previous record of 60.4 million tonnes set in the 2008-09 crop year.

As the final estimate began to crystallize, the industry began to confront the realities attached to the marketing of a 75.9-million-tonne crop.

Figure 27: Change in Terminal Elevator Handling Charges



Compounding this was carry-forward stocks of 4.9 million tonnes that lifted the overall grain supply to 80.8 million tonnes. With the international marketplace seemingly already awash in grain, this left many worried about a further erosion in grain prices. But foremost among the growing list of concerns was the fear that the GHTS would be incapable of adequately providing for the movement of such a large crop. In fact, rather than being focused on moving it all, the majority of stakeholders hoped that the system would have sufficient capacity to handle a sizeable portion of the added production, thereby avoiding the buildup of an unwieldy level of carry-out stocks at year end.

As the scope of the challenge confronting the industry became apparent the system quickly became inundated with grain. On-farm inventories were soon bulging with an unanticipated excess, which gave way to the broad use of temporary storage options. Moreover, as elevator deliveries grew, the problem began to spread. Before long the country elevator system was beginning to congest, with many facilities forced to turn away producers for the simple lack of space. Central to the timely

processing of any elevator's grain was the carrying capacity provided to it by the railways; without an adequate supply of railcars the system would soon became backlogged.

By mid September 2013 the demand for carrying capacity in the country was outpacing what was being supplied by a factor of 10%, leaving the equivalent of about 1,000 carloads of traffic going unmoved each week. The effects of this were also beginning to spread, with terminal elevator stocks declining by as much as 20% from what had been observed during the same period a year earlier. More importantly, the number of vessels waiting to load at port was now beginning to climb. By the close of the first quarter the majority of these indicators had only worsened: country elevators stocks rose to 3.5 million tonnes; uncommitted railcar orders topped 15,000; and the number of ships waiting to load at west-coast ports was approaching 20.

For its part, the carrying capacity supplied by the railways proved roughly equivalent to that supplied during the same period a year earlier. In fact, total hopper-car shipments during the first quarter actually declined by 2.6%. This served to fuel the ire of the grain industry at large because railway representatives were indicating that their operations were ill prepared to deal with the movement of a crop that was so much larger than normal. Moreover, the railways had been striving to enhance the productivity of their operations; increasing equipment velocity while reducing locomotives, railcars and human resources.

The situation was made all the worse given the urgency to sell grain in a market already characterized by declining prices. The pressure exerted by farmers trying to effect delivery sooner rather than later only compounded the system's growing problem with congestion. Confronted with the increasingly difficult task of delivering their grain, many producers turned to enhancing the storage capacity of their farms. But the ready supply of available storage bins soon exceeded the demand. As a result, farmers moved to store a significant portion of their crop on the ground, an option that carried with it the heightened threat for spoilage. For those who had not contracted for the delivery of their grain, market

Trucks loaded with grain are seen lining up in the driveway to an elevator located on the outskirts of Winnipeg, Manitoba, awaiting their turn at delivering a small portion the 2013-14 crop year's record-breaking harvest.

conditions continued to eat away at the value of the crop they had stored. Compounding the issue of eroding market prices, the grain companies had now begun to widen their basis levels, hacking away even further at the producers' potential returns. Even those who had signed delivery contracts were seeing these deferred to later in the season.

The situation was made no better when a CN freight train derailed near Gainford, Alberta, on 19 October 2013, closing the carrier's principle artery to the west coast for four days and broadly undermining the fluidity of railway operations still further.

Changes to the Collection of Canadian Grain Commission Data

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), with a view to eliminate any unnecessary or redundant services, and reducing the regulatory burden on the grain industry.

Among the more noteworthy revisions to the *Canada Grain Act* was the transfer of responsibility for inward weighing and inspection at terminal elevators from the CGC to the private sector. Although the CGC would no longer be the primary source of this data, the Act affirmed its oversight role in collecting this fundamental information regarding terminal elevator operations.

To this end, the CGC convened an industry working group to develop the standards and information-gathering protocols that would be used in the future. This ultimately evolved into what the CGC called its Licensed Terminal Elevator Reporting Requirements, which was distributed to the industry in June 2013. The transfer of this responsibility, which resulted in terminal-elevator staff collecting and reporting on data previously collected by the CGC, led to various teething pains in the first quarter of the 2013-14 crop year.

Regular users of the Monitor's reports need to be mindful that these changes in the approach to data collection had inevitable consequences for the measures assembled for terminal-elevator operations. While the data provided by the terminal-elevators is equivalent to that previously collected by the CGC, it is gathered by a variety of companies with equally diverse approaches to data collection. This, along with other changes in the data reporting, makes some direct comparisons with previously collected data under the GMP difficult. By way of example, much of the data pertaining to terminal operations in Vancouver and Prince Rupert has been superseded by single values for the Pacific Seaboard.

Section 5: System Efficiency and Performance

Indicator Description	Table	1999-00	2011-12	2012-13	2013-14 Q1	Q2	Q3	Q4	YTD	% VAR
Country Elevator Operations										
Average Elevator Capacity Turnover Ratio	5A-1	4.8	6.0	5.8	1.7	-	-	-	1.7	0.0%
Average Weekly Elevator Stock Level (000 tonnes)	5A-2	3,699.3	2,660.8	2,489.6	2,849.4	-	-	-	2,849.4	6.4%
Average Days-in-Store (days)	5A-3	41.7	27.6	26.5	26.8	-	-	-	26.8	3.1%
Average Weekly Stock-to-Shipment Ratio – Grain	5A-4	6.2	4.1	3.9	3.7	-	-	-	3.7	2.8%
Railway Operations										
Railway Car Cycle (days) – Empty Movement	5B-1	10.7	7.2	7.5	7.4	-	-	-	7.4	-1.6%
Railway Car Cycle (days) – Loaded Movement	5B-1	9.2	6.7	6.5	5.9	-	-	-	5.9	0.3%
Railway Car Cycle (days) – Total Movement	5B-1	19.9	13.9	14.0	13.3	-	-	-	13.3	-0.7%
Railway Car Cycle (days) – Non-Special Crops	5B-2	19.3	13.8	13.9	12.9	-	-	-	12.9	-2.1%
Railway Car Cycle (days) – Special Crops	5B-3	25.8	16.3	15.8	16.2	-	-	-	16.2	5.6%
Railway Transit Times (days)	5B-4	7.8	5.6	5.4	4.9	-	-	-	4.9	0.8%
Hopper Car Grain Volumes (000 tonnes) – Non-Incentive	5B-5	12,718.7	5,455.6	6,488.9	2,099.9	-	-	-	2,099.9	-1.1%
Hopper Car Grain Volumes (000 tonnes) – Incentive	5B-5	12,945.9	22,726.3	21,933.7	6,148.8	-	-	-	6,148.8	-3.0%
Hopper Car Grain Volumes ($ millions) – Incentive Discount Value	5B-6	$31.1	$154.6	$155.5	$44.3	-	-	-	$44.3	-1.8%
Traffic Density (tonnes per route mile) – Grain-Dependent Network	5B-7	442.5	592.4	593.3	751.2	-	-	-	751.2	1.7%
Traffic Density (tonnes per route mile) – Non-Grain-Dependent Network	5B-7	292.5	345.5	357.2	399.0	-	-	-	399.0	-4.4%
Traffic Density (tonnes per route mile) – Total Network	5B-7	330.4	395.1	403.6	468.2	-	-	-	468.2	-2.6%
Terminal Elevator Operations										
Average Terminal Elevator Capacity Turnover Ratio	5C-1	9.1	11.1	11.1	n/a	-	-	-	n/a	n/a
Average Weekly Terminal Elevator Stock Level (000 tonnes)	5C-2	1,216.2	1,091.6	1,139.6	833.0	-	-	-	833.0	-24.7%
Average Days-in-Store – Operating Season (days)	5C-3	18.6	13.9	14.3	11.8	-	-	-	11.8	-17.5%
Port Operations										
Average Vessel Time in Port (days)	5D-1	4.3	6.6	9.7	7.8	-	-	-	7.8	25.8%
Average Vessel Time in Port (days) – Waiting	5D-1	1.9	3.0	4.8	3.7	-	-	-	3.7	32.1%
Average Vessel Time in Port (days) – Loading	5D-1	2.4	3.6	4.9	4.1	-	-	-	4.1	20.6%
System Performance										
Total Time in Supply Chain (days)	5E-1	68.1	47.1	46.2	43.5	-	-	-	43.5	-5.8%