Monitoring the Canadian Grain Handling and Transportation System

Annual Report
2008-2009 Crop Year

1 Summary Report

Government of Canada Gouvernement du Canada

Quorum Corporation

Foreword

The following report details the performance of Canada's Grain Handling and Transportation System (GHTS) for the crop year ended 31 July 2009, and focuses on the various events, issues and trends manifest in the movement of Western Canadian grain during the past year. This is the ninth annual report submitted by Quorum Corporation in its capacity as the Monitor appointed under the Government of Canada's Grain Monitoring Program (GMP).

As with previous quarterly and annual reports, the report is structured around a number of performance indicators established during the GMP, and grouped under five broad series, namely:

Series 1 – Industry Overview
Series 2 – Commercial Relations
Series 3 – System Efficiency
Series 4 – Service Reliability
Series 5 – Producer Impact

Each series is the subject of an in-depth examination presented in Sections 1 through 5 respectively. The analysis is founded on data collected by the Monitor from the industry's various stakeholders, and uses year-over-year performance comparisons to frame the discussion. To that end, performance in the 2008-09 crop year is largely gauged against that of the 2007-08 crop year.

The GMP is also intended to frame recent performance against the backdrop of a longer time series. Beginning with the 1999-2000 crop year – referred to as the "base" year during the GMP – the Monitor has now assembled relatable quarterly performance data in a time series that spans ten crop years. This data constitutes the backbone of the GMP, and is used widely to identify significant trends and changes in GHTS performance over the course of this interval. Readers interested in a fuller examination of the time series data collected are encouraged to consult the detailed data tables found in Appendix 5 as required.

The accompanying report, as well as the data tables which support it, can both be downloaded from the Monitor's website (www.quorumcorp.net).

QUORUM CORPORATION

Edmonton, Alberta
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Executive Summary

The federal government's Grain Monitoring Program (GMP) was initiated in 2001 in order to facilitate a continuous gathering of data, the preparation of detailed measures and an assessment of the performance of Canada's Grain Handling and Transportation System. This report is the ninth during the GMP and covers ten years worth of collected data, starting with the 1999-2000 crop year, and culminating with the 2008-09 crop year.

Under its mandate, Quorum Corporation provides the government with a series of quarterly and annual reports that track and analyze the impact of overall changes in the structure of the grain handling and transportation system, the effectiveness of the Canadian Wheat Board's tendering process, commercial relations, the efficiency and reliability of the system, short-term operational performance and producer impacts.

The Monitor's annual reports are intended to provide a wide ranging examination and assessment of Canada's Grain Handling and Transportation System (GHTS). These findings are summarized below:

Production and Volumes

Overall grain production for the 2008-09 crop year climbed to 60.4 million tonnes, an increase of 24.4% from a year earlier and ranked as the largest crop yet witnessed during the GMP. The previous production record of 56.0 million tonnes was set in the 2005-06 crop year. There were increases in all grains with the exception of oats. CWB grains posted the largest relative gain, climbing to a near record 36.7 million tonnes. Non-CWB grains rose to 23.6 million tonnes, setting a new production record during the GMP for a second year in a row.

When combined with 5.6 million tonnes of carry-forward stocks, the overall grain supply for the 2008-09 crop year reached 66.0 million tonnes, a gain of 17.9% over the previous crop year's 56.0 million tonnes. This constituted the second largest grain supply recorded during the GMP.

The amount of regulated grain moved by rail to western Canadian ports increased by 20.1% in the 2008-09 crop year, with the total volume rising to a record 27.3 million tonnes from 22.8 million tonnes in the previous year. The port of Vancouver remained the principal export destination, with an overall increase of 25.5% raising its traffic volume to a record 15.7 million tonnes. Shipments to Prince Rupert rose by 5.1% to 4.7 million tonnes. Thunder Bay is still ranked as the second largest export destination for the GHTS, with an increase of 26.2% to 6.5 million tonnes. Churchill experienced a decline in volume of 0.4 million tonnes, or 32.9% compared to the previous crop year. Overall, port terminal facilities unloaded 294,335 covered hopper cars, a gain of 20.0% over the previous year.

CP displaced CN as the GHTS's largest grain handler, taking an overall share of 50.8% versus 49.2% respectively.

Infrastructure

The decline in the number of licensed country elevators in western Canada remains one of the most visible facets of the GHTS's continuing evolution. At the outset of the 1999-2000 crop year, there were 1,004 licensed primary and process elevators on the prairies. By the close of the 2008-09 crop year the total number of licensed elevators in western Canada had been reduced to 366. The limited scope of the changes recorded in the last six crop years suggests that the grain companies have effectively completed their major elevator rationalization programs.

The GHTS's storage capacity fell by a modest 13.8% in this same period. This lower rate of decline reflects the grain companies' strategies to close less-efficient smaller elevators and to replacing them with the larger high-through put elevators. High-throughput facilities accounted for 50.5% of all elevators, and 81.0% of overall storage capacity by the end of the 2008-09 crop year, a change from 11.9% and 39.4% respectively held at the beginning of the GMP. Much of this transformation came as a result of the initiatives taken by the predecessors of today's Viterra Inc., whose collective

actions accounted for 94.0% of the net reduction in licensed elevators.

The licensed terminal elevator network in western Canada stood unchanged and the close of the 2008-09 crop year, comprising a total of 15 facilities with an associated storage capacity of 2.5 million tonnes.

Another 73.3 route-miles were removed from the rail system in the 2008-09 crop year, attributable to CN's abandonment of a number of branch lines, most of which were located in Saskatchewan. Over the term of the GMP the western Canadian railway infrastructure has been reduced by 8.0% to 17,904.7 route-miles, The largest portion of this came from the abandonment of 1,363.1 route-miles of light-density, grain-dependent branch lines.

The origin of the traffic moved through the GHTS continues to reflect the changes that have been made in both the elevator and railway networks. Over the term of the GMP, the tonnage forwarded from points on non-grain-dependent lines rose by 12.9%, while volumes transported from the grain-dependent network declined by 12.6%. Despite the minor impact caused by the repurchase of certain short lines by CN in the past 3 years, the overall trend also shows the tonnage originated by shortline carriers has declined far more precipitously than tonnage originated by the Class 1 carriers since the beginning of the GMP.

CWB Tendering and Advanced Awards

The 2008-09 crop year was the ninth for the Canadian Wheat Board's (CWB) tendering program and the sixth year in which the CWB targeted to move a fixed 40% of its overall grain movement to the four ports in western Canada using a combination of tendering and advance car awards. Under the terms of this arrangement, about half of this volume – representing a maximum of 20% of its overall grain movements – was to be tendered.

The CWB issued a total of 266 tenders calling for the shipment of approximately 3.4 million tonnes of grain, an increase of 80.6% over the 1.9 million tonnes that had been sought a year earlier. The calls were met by 822 bids offering to move 5.6 million tonnes of grain. A total of 316 contracts were subsequently signed for the movement of 2.2 million tonnes of grain. This represented 14.4% of the tonnage shipped by the CWB to western Canadian ports during the 2008-09 crop year, falling 25% short of its target.

Of the tonnage moved, 42.6% was shipped to Prince Rupert, 38.9% to Vancouver, and 18.5% to Thunder Bay. In addition to showing a diminished role for Vancouver and Churchill, these results mark the fourth time that Thunder Bay failed to place at least second in terms of the largest export gateways for tendered grain.

Discounts advanced on wheat in the first quarter averaged $23.01 per tonne. However, they began to move substantially lower in the second quarter. Eventually discounts dropped to a low of $7.11 per tonne by the end of the crop year. The fourth quarter produced some of the lowest recorded bids in five years. Despite the decline of the discounts, the transportation savings accruing to the CWB – and ultimately passed back to producers through its pool accounts – actually increased to $34.5 million in the 2008-09 crop year. The CWB estimates that the savings generated from tendering and other sources increased by 12.7% over the previous year.

A total of 1.9 million tonnes of grain moved under the advance car awards program during the 2008-09 crop year representing 12.2% of the CWB's total shipments to western Canadian ports, 1.5% lower than the year before.

With a combined target of 40%, a total of 26.5% of the CWB's shipments moved under these two programs, and lower than the 28.0% that had been handled in the 2007-08 crop year.

Commercial Relations

Among other important commercial events recorded during the 2008-09 crop year were:

- In September 2007, dissatisfaction over CN service led six grain shippers to bring level-of-service complaints against the carrier to the Canadian Transportation Agency. One year later, the Agency released its final decision, finding that CN had breached its level-of-service obligations to four of the six complainants. Prescribing a remedy with performance-based standards, the Agency directed CN to ensure that these four grain companies henceforth received at least 80% of their weekly car orders, 90% of the time. But complaints about the carrier's service were not to end there. In March 2009, Western Grain Trade Ltd. lodged a similar complaint against CN for the service it had been receiving. By the close of the 2008-09 crop year, a decision in the matter had still not been rendered.

- At the end of the 2007-08 crop year, the federal government ended the use of Kernel Visual Distinguishability (KVD) to classify western Canadian wheat. From 1 August 2008, KVD was replaced by a system involving farmer-based declarations. Following the adoption of this new declaration process, a long-standing concern over farmers inadvertently delivering wheat varieties that were no longer registered began to take on new urgency. Although few such deliveries of non-registered grain were made, the Canadian Grain Commission and the Canadian Food Inspection Agency recognized that an enhanced notification system was needed in order to avoid future occurrences. Both organizations committed to address these issues.

- As has been the case since 2003, ocean freight rates continued to fluctuate dramatically through this crop year. After wide fluctuations over the previous 18 months, ocean freight rates as measured by the Baltic Dry Index (BDI), reached an all time high of almost 12,000 points in June 2008. Following the course of the financial and economic collapse through the summer of 2008, the BDI fell to 8,600 points by the close of the 2007-08 crop year. By the end of October 2008, the BDI had fallen another 7,800 points to stand at just over 850 points. This represented a decline of 90% over the course of less than six months. The negative impact on the ocean movement of raw materials, especially to China, produced an extraordinary excess in shipping capacity. While Western Canadian grain usually trades at a freight disadvantage in many parts of the world owing to the greater distances involved in shipping it to market, the reverse is also true, with Canada's ability to compete often enhanced when ocean freight rates fall. Consequently, the ocean vessel capacity released from the downturn in other commodities contributed to the ability of the GHTS to handle a record volume of export grain through to the end of the crop year.

- Although the revenue cap was adjusted in the 2007-08 crop year to reflect a one-time adjustment to the maintenance allowances accorded to CN and CP, both carriers appealed the Canadian Transportation Agency's final determination. The Federal Court of Appeal ruled against the railways, upholding the Agency's determination and the one-time adjustment of $72.2 million. The Supreme Court of Canada also dismissed a subsequent application by the railways.

System Efficiency and Reliability

To examine the speed with which grain moves through the GHTS, the GMP uses the supply chain model. In the 2008-09, the average time to move grain through the supply chain fell by 8.9 days to 51.2 days compared to the previous year. There were reductions in each of the primary supply chain elements with the result that this average was the lowest recorded during the GMP:

Other notable observations concerning the performance of the GHTS in the 2008-09 crop year include:

- Although western Canada had the potential to move 66.0 million tonnes, good harvests in many countries and replenished world supplies resulted in lower volumes of Canadian grain being exported in the first six months of the 2008-2009 crop year.

- The timing of the financial crisis led to a reduction in demand and price for many commodities. While grain was spared the worst of this, the impact of decreased demand in other sectors resulted in a sharp decline in the demand for rail service. For the GHTS, however, the decreased demand in other sectors the allowed the railways to readily accommodate the surge in grain volume that came in the third and fourth quarter. The volume handled by the GHTS in the second half of the crop year far

surpassed that moved during any comparable period in the last decade and more than compensated for the weaknesses of the first half of the year This resulted in the largest annual grain movement witnessed during the GMP.

- It is important to note that the pace at which grain moved through the GHTS proved slower in the first half of the crop year, and accelerated rapidly in the last half, leading to the record levels of performance. From an average of 60.3 days in the first quarter, it fell to a record-setting 44.6 days in the fourth quarter. Much of the improvement came from a reduction in the amount of time spent by grain in inventory, particularly in the port terminals. Complementing this was a significant improvement in the railways' average loaded transit time. Overall performance saw country elevator storage time fall by 3.4 days, loaded railway transit time fall by 1.2 days and terminal elevator storage time, fall by 4.3 days. The GHTS's performance in the 2008-09 crop year marked its most productive during the GMP, and revealed how effective the system can be when all of its elements are working in closer harmony.

The GMP examines terminal stock levels against both the stated requirements and actual shipments of vessels loading at western Canadian ports as a means of gauging the reliability of the GHTS. These ratios provide an indication of whether or not sufficient quantities of grain were available at the terminals to meet the demand presented by the vessels loading during any particular week. For the GHTS as a whole, stock-to-vessel-requirement, and stock-to-shipment, ratios with values of about 1.0 are considered optimal targets since they would indicate an effective balance between supply and demand. Since the beginning of the GMP these stocks generally exceed the immediate needs of these vessels by a comfortable margin - three to five times the tonnage needed. They are also well above those tonnages necessary to determine that a delivery system has met the minimum standards for reliability. To the extent that the reliability of any supply chain can be gauged by its ability to actually deliver product at the time and place specified, the western Canadian GHTS can be deemed reliable.

Producer Impact

An examination of the per-tonne financial returns to producers of wheat, durum, canola, and large yellow peas, indicates that all have improved significantly since the 1999-2000 crop year. These gains ranged from a low of 50.6% in the case of large yellow peas, to a high of 98.9% for 1CWA durum. In all instances, these improvements have been fuelled by substantive increases in the market price of the commodity itself.

The year-over-year sensitivity of the producer's netback to changes in price were again in evidence in the 2008-09 crop year as a consequence of the 2008 financial crisis, which did much to disrupt grain sales and destabilize prices. Although in comparison to other commodity markets, the impact on Canadian grain prices proved minimal. In comparison to the last crop year, the impact ranged from a reduction of just 5.1% in the price of large yellow peas, to a more substantive 26.2% decrease in the final price of 1CWA durum. These price reductions were echoed in corresponding reductions in producers' financial returns.

However, the influence on the export basis was substantially less, stemming predominantly from a difference in the scale of the cost components themselves:

- The increase for CWB grains was contained by improvements in the financial benefits accruing to producers, whether in the form of trucking premiums or CWB transportation savings. These benefits, which amounted to $7.87 per tonne and $8.17 per tonne for wheat and durum respectively, acted as partial counterweights to increases in the direct cost of railway freight, elevation, cleaning, and storage.

- Non-CWB commodities however (canola and large yellow peas) receive significantly less in terms of premiums than CWB grains do. More significantly, the trucking premiums paid for both commodities has declined significantly over the course of the past decade with premiums for canola falling from $2.48 per tonne in the 1999-2000 crop year to $1.20 per tonne.

This year saw the largest movement of producer cars since the GMP began. The 13,243 carloads represented 4.5% of the grain moved in the 2008-09 crop year and represent 7.3% of CWB grain shipments. This compares favourably with the 1.2% share of movements that producer cars achieved in 1999-2000.

This increase in producer-car shipments has come as a result of many factors, not the least of which is the formation of producer-car loading groups. While they take a variety of forms, the most common of these sees local producers working together, either through an agent or a centrally-controlled entity, to oversee the loading of producer cars in larger blocks than would be possible on an individual basis. These range from small groups loading their own cars using mobile augers on a designated siding, to much more sophisticated organizations with significant investments in fixed trackside storage and car loading facilities. Some have gone so far as to purchase branch lines being abandoned by CN or CP, establishing a shortline railway that becomes an integral element in the larger grain-handling operation.

Section 1: Industry Overview

The purpose of the Industry Overview series of indicators is to track changes in grain production, the structure of the industry itself and the infrastructure comprising the GHTS. Changes in these areas can have a significant influence on the efficiency, effectiveness and competitiveness of the GHTS as a whole. Moreover, they may also be catalysts that shift traditional traffic patterns, the demand for particular services, and the utilization of assets.

Highlights – 2008-09 Crop Year

Grain Production and Supply

- *Grain production increased by 24.4% to 60.4 million tonnes.*
  - *Due to favourable growing conditions.*
  - *Largest production volume recorded during the GMP.*
    - *Manitoba – up 18.4% to 10.4 million tonnes.*
    - *Saskatchewan – up 26.3% to 29.8 million tonnes.*
    - *Alberta – up 25.5% to 20.0 million tonnes.*
  - *Harvest was of good-quality.*
    - *Higher-quality grades readily available.*
  - *Production increase was broadly based.*
    - *Wheat – up 35.8% to 20.0 million tonnes.*
    - *Durum – up 49.9% to 5.5 million tonnes.*
    - *Barley – up 8.7% to 11.2 million tonnes.*
    - *Canola – up 32.5% to 12.6 million tonnes.*
    - *Oats – down 7.7% to 4.0 million tonnes.*
- *Carry forward stocks decreased by 24.2% to 5.6 million tonnes.*
  - *Drawdown prompted by reduced production in the previous crop year.*
- *Total grain supply increased by 17.9% to 66.0 million tonnes.*
  - *Second largest recorded during the GMP.*

Railway Traffic

- *Railway grain volume increased 20.1% to 27.3 million tonnes.*
- *Largest railway volume recorded during the GMP.*
  - *Vancouver volume increased 25.5% to 15.7 million tonnes.*
    - *Share of traffic increased to 57.6% from 55.1% a year earlier.*
  - *Prince Rupert volume increased 5.1% to 4.7 million tonnes.*
    - *Share of traffic fell to 17.1% from 19.6% a year earlier.*
  - *Thunder Bay volume increased 26.2% to 6.5 million tonnes.*
  - *Churchill volume decreased 32.9% to 0.4 million tonnes.*

Country Elevator Infrastructure

- *Sixth consecutive year of limited changes to elevator network.*
  - *Grain delivery points decreased by 1.4% to 272.*
  - *Number of elevators decreased by 3.2% to 366.*
- *Elevator storage capacity increased by 1.8% to 6.1 million tonnes.*
- *Elevators capable of loading in blocks of 25 or more cars unchanged at 243.*
  - *Share of GHTS elevators increased to 66.4% from 64.3%.*
  - *Share of GHTS storage capacity increased to 90.1% from 88.3%.*

Railway Infrastructure

- *Western Canadian railway network reduced by 0.4% to 17,904.7 route-miles.*
  - *CN abandoned 73.3 route-miles of track.*
- *CP transfers 116.3 route-miles of Saskatchewan branch lines to Great Sandhills Railway.*
  - *Established as a subsidiary of Great Sandhills Terminal in March 2009.*
- *Boundary Trail Railway finalizes purchase of former CP branch line.*
  - *Commences operations in June 2009.*
- *Discontinuance plans for over 900 route-miles of CN and CP infrastructure remain.*

Terminal Elevator Infrastructure

- *Terminal elevators remain unchanged at 15.*
  - *Storage capacity also remains unchanged at 2.5 million tonnes.*
- *Terminal elevator unloads increased by 20.0% to 294,335 railcars.*
  - *CP's share increased marginally to 50.8% from 49.8% a year earlier.*

Indicator Series 1 – Industry Overview

Table	Indicator Description	Notes	BASE 1999-00	CURRRENT REPORTING PERIOD (1) 2007-08	2008-09	% VAR	
	Production and Supply [Subseries 1A]						
1A-1	Crop Production (000 tonnes)	(2)	55,141.7	48,517.3	60,351.7	24.4%	▲
1A-2	Carry Forward Stock (000 tonnes)	(2)	7,418.2	7,450.6	5,646.6	-24.2%	▼
	Grain Supply (000 tonnes)	(2)	62,559.9	55,967.9	65,998.3	17.9%	▲
1A-3	Crop Production (000 tonnes) – Special Crops	(2)	3,930.2	4,404.3	5,157.4	17.1%	▲
	Rail Traffic [Subseries 1B]						
1B-1	Railway Grain Volumes (000 tonnes) – Origin Province						
1B-2	Railway Grain Volumes (000 tonnes) – Primary Commodities		26,440.8	22,766.5	27,338.4	20.1%	▲
1B-3	Railway Grain Volumes (000 tonnes) – Detailed Breakdown						
1B-4	Railway Grain Volumes (000 tonnes) – Special Crops		2,103.4	2,481.0	2,945.4	18.7%	▲
	Country Elevator Infrastructure [Subseries 1C]						
1C-1	Grain Delivery Points (number)		626	276	272	-1.4%	▼
1C-1	Grain Elevator Storage Capacity (000 tonnes)		7,443.9	5,952.5	6,059.0	1.8%	▲
1C-1	Grain Elevators (number) – Province						
1C-2	Grain Elevators (number) – Railway Class		917	378	366	-3.2%	▼
1C-3	Grain Elevators (number) – Grain Company						
1C-4	Grain Elevators Capable of Incentive Loading (number) – Province						
1C-5	Grain Elevators Capable of Incentive Loading (number) – Railway Class		317	243	243	0.0%	–
1C-6	Grain Elevators Capable of Incentive Loading (number) – Railway Line Class						
1C-7	Grain Elevator Openings (number) – Province						
1C-8	Grain Elevator Openings (number) – Railway Class		43	10	18	80.0%	▲
1C-9	Grain Elevator Openings (number) – Railway Line Class						
1C-10	Grain Elevator Closures (number) – Province						
1C-11	Grain Elevator Closures (number) – Railway Class		130	3	30	900.0%	▲
1C-12	Grain Elevator Closures (number) – Railway Line Class						
1C-13	Grain Delivery Points (number) – Accounting for 80% of Deliveries		217	91	n/a	n/a	–
	Railway Infrastructure [Subseries 1D]						
1D-1	Railway Infrastructure (route-miles) – Grain-Dependent Network		4,876.6	3,658.8	3,591.6	-1.8%	▼
1D-1	Railway Infrastructure (route-miles) – Non-Grain-Dependent Network		14,513.5	14,319.2	14,313.1	0.0%	–
1D-1	Railway Infrastructure (route-miles) – Total Network		19,390.1	17,978.0	17,904.7	-0.4%	–
1D-2	Railway Grain Volumes (000 tonnes) – Grain-Dependent Network		8,686.5	6,648.9	7,586.4	14.1%	▲
1D-2	Railway Grain Volumes (000 tonnes) – Non-Grain-Dependent Network		16,975.8	15,435.1	19,173.6	24.2%	▲
1D-2	Railway Grain Volumes (000 tonnes) – Total Network		25,662.3	22,084.0	26,760.0	21.2%	▲
1D-3	Shortline Railway Infrastructure (route-miles)		3,043.0	1,870.7	1,987.0	6.2%	▲
1D-3	Shortline Railway Grain Volumes (000 tonnes)		2,090.5	578.3	761.5	31.7%	▲
1D-5	Railway Grain Volumes (000 tonnes) – Class 1 Carriers		23,571.8	21,505.7	25,998.5	20.9%	▲
1D-5	Railway Grain Volumes (000 tonnes) – Class 2 and 3 Carriers		2,090.5	578.3	761.5	31.7%	▲
1D-6	Grain Elevators (number) – Grain-Dependent Network		371	117	113	-3.4%	▼
1D-6	Grain Elevators (number) – Non-Grain-Dependent Network		513	240	234	-2.5%	▼
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Grain-Dependent Network		2,475.4	1,593.9	1,611.1	1.1%	▲
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Non-Grain-Dependent Network		4,847.6	4,274.7	4,370.8	2.2%	▲
	Terminal Elevator Infrastructure [Subseries 1E]						
1E-1	Terminal Elevators (number)		15	15	15	0.0%	–
1E-1	Terminal Elevator Storage Capacity (000 tonnes)		2,678.6	2,475.6	2,475.6	0.0%	–
1E-2	Terminal Elevator Unloads (number) – Covered Hopper Cars		278,255	245,213	294,335	20.0%	▲

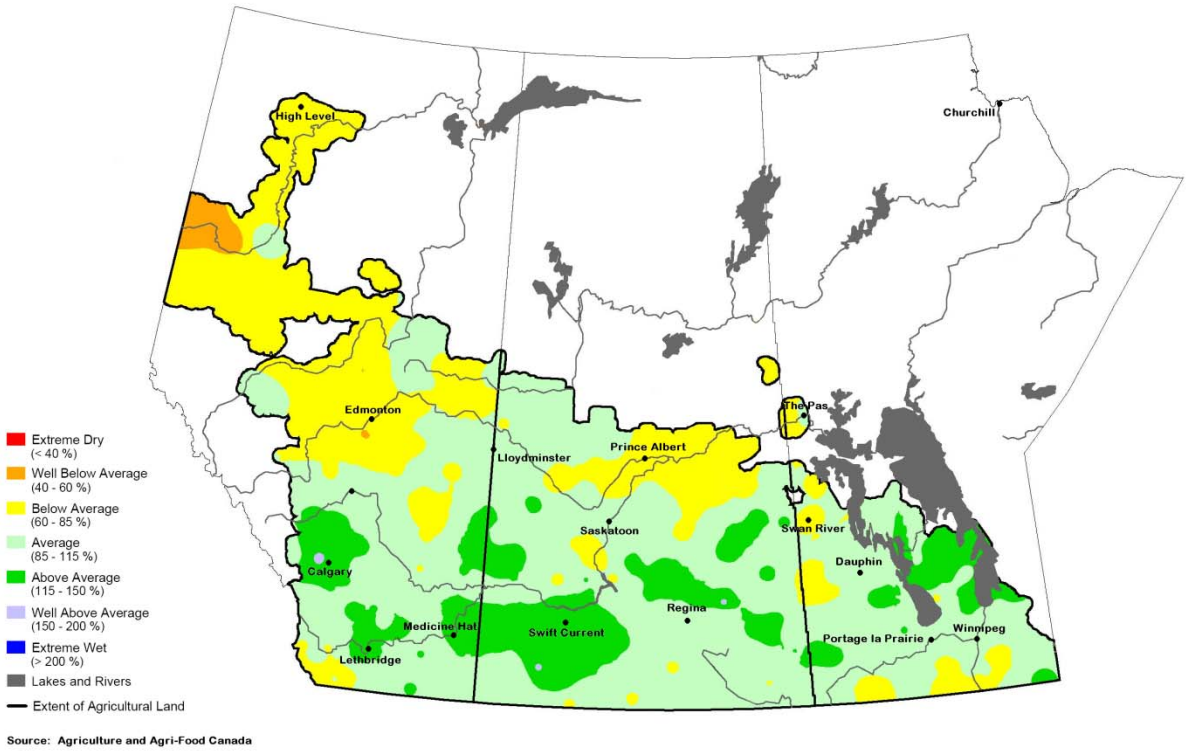
(1) – In order to provide for more direct comparisons, the values for the 1999-2000 through 2008-09 crop years are "as at" or cumulative to 31 July unless otherwise indicated.
(2) – Values quoted represent the supply available for movement during the crop year.

1.1 Production and Supply *[Measurement Subseries 1A]*

Favourable growing conditions across much of the prairies proved responsible for a significant increase in grain yield for the 2008-09 crop year. Generally good conditions allowed farmers to bring harvest to completion ahead of normal, and contributed to an improvement in overall grain quality. Even though global grain prices remained higher than those posted under the Grain Monitoring Program (GMP) a decade earlier, they fell sharply from the record levels witnessed in the previous crop year. Although much of this was due to the general improvement in grain supplies occasioned by the recent end of drought conditions in both Australia and Ukraine, grain prices could not escape the downward pressure occasioned by the financial crisis that gripped the world in the latter half of 2008.

Although this crisis resulted in a sharp downturn in overall GHTS activity during the first quarter, volumes began to rebound in the second, and improved dramatically in the latter half of the crop year. In fact, the heightened demand for Canadian grain during this period resulted in a new GMP volume record. The effects of this increased activity can readily be seen in a wide number of the measures that follow.

Figure 1: Percentage of Average Precipitation – 1 April to 31 August 2008



The amount of precipitation received in the 2008 growing season proved to be consistent with the historical norm for most areas of western Canada.[1] Even so, drier-than-normal conditions were experienced in some of the more northerly latitudes. This served to contain grain production in certain areas, the most notable being the Peace River region of Alberta. Notwithstanding such anomalies, overall grain production for the 2008-09 crop year climbed to 60.4 million tonnes, an increase of 24.4% from the previous crop year's 48.5 million tonnes. This marked the first increase in production following two consecutive years of decline. Moreover, the crop proved to be the largest yet witnessed during the GMP, exceeding the previous production record of 56.0 million tonnes set in the 2005-06 crop year by a comfortable 7.8%. [See Table 1A-1 in Appendix 5.]

Provincial Grain Production

The upturn in overall grain production was widespread, and evident in the output of each of the three principal grain-producing provinces. The largest increase was registered by Saskatchewan, where production climbed by 26.3% in the face of better growing conditions, rising to 29.8 million tonnes from 23.6 million tonnes a year earlier.[2]

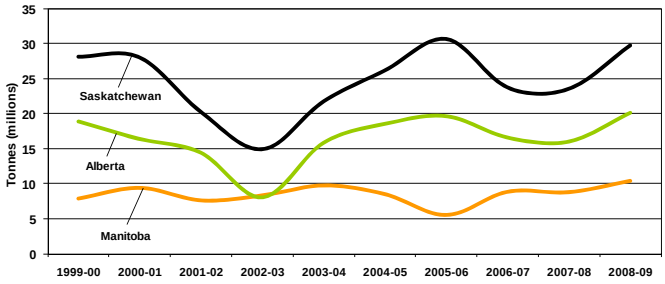
[1] The comparisons made here are based on historical data gathered by Agriculture and Agri-Food Canada for the 30-year period extending from 1961 to 1990.

[2] During the GMP, Saskatchewan has typically accounted for about half of the grain produced in western Canada. The province's share for the 2008-09 crop year was 49.3%, which represented a modest gain over the previous crop year's 48.6% share.

Alberta, which accounted for almost one-third of the grain produced in western Canada, followed suit with an increase of 25.5%. This saw the province's total output rise to 20.0 million tonnes from 16.0 million tonnes the year before. An 18.4% increase in Manitoba's output saw total production for that province rise to 10.4 million tonnes from the 8.8 million tonnes recorded a year earlier.

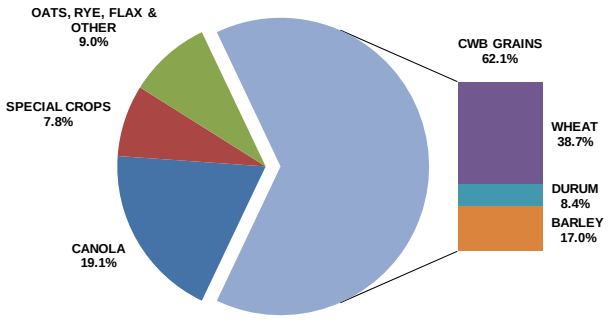
British Columbia reported a 25.3% decline in production. Its harvest continued to rank as the smallest during the GMP, totalling somewhat less than 0.2 million tonnes.[3]

Figure 2: Major Grain Production – Provincial Distribution



In keeping with the broader provincial increases highlighted above, significant upturns in production were noted for all grains, save oats. CWB grains posted the largest relative gain, with an increase of 27.9% compared to 19.4% for non-CWB grains. Total CWB grain production approached record levels, climbing to 36.7 million tonnes from 28.7 million tonnes a year earlier.[4] More noteworthy was the output for non-CWB grains, which rose to a record-setting 23.6 million tonnes during the GMP.

Figure 3: Crop Production – 2008-09 Crop Year



The 8.0-million-tonne gain in overall CWB-grain production was heavily influenced by a 35.8% increase in the size of the wheat harvest, which climbed to 20.0 million tonnes from 14.7 million tonnes a year earlier. This was complemented by a 49.9% increase in durum production, which topped 5.5 million tonnes as compared to 3.7 million tonnes the year before. An 8.7% increase in barley production added another 11.2 million tonnes to the mix.

With 12.6 million tonnes of production, canola accounted for slightly more than half of the 23.6 million tonnes of non-CWB grains harvested in the 2008-09 crop year.[5] Moreover, a 3.1-million-tonne rise in the size of the canola crop accounted for the vast majority of the 3.8-million-tonne increase in non-CWB grain production. This expansion was supported by a substantive increase in the production of dry peas, which expanded by 0.6 million tonnes to 3.6 million tonnes, and complemented by more modest gains in the output of other commodities. A 7.7% decline in oat production, which fell by 0.3 million tonnes to 4.0 million, proved to be the only negative factor in these results.

[3] British Columbia is the smallest grain-producing province in western Canada. At 155,900 tonnes, production for the 2008-09 crop year was about half of the GMP's record high of 327,600 tonnes, which was set in the 2003-04 crop year.

[4] CWB grain production reached a GMP record of 37.8 million tonnes in the 2000-01 crop year. Production for the 2008-09 crop year fell just 2.8% below this benchmark.

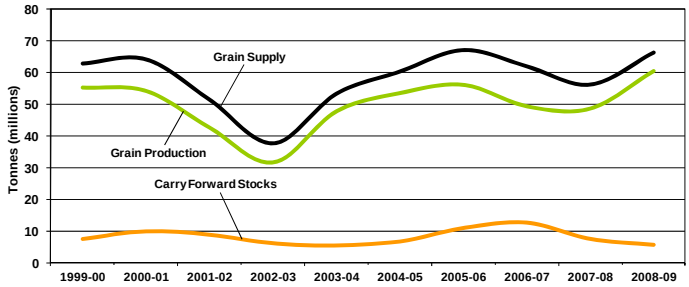
[5] The Canadian Wheat Board Act gives the CWB sole marketing authority for wheat and barley produced by western Canadian farmers for export and domestic human consumption. Those not specifically identified in the Act are designated as non-CWB grains under the Grain Monitoring Program.

As was the case with non-CWB grains generally, special-crop production showed a marked increase in the 2008-09 crop year, climbing by 17.1% to 5.2 million tonnes.[6] Much of this 0.8-million-tonne gain was derived from a 21.7% increase in dry pea production, which reached a GMP record of 3.6 million tonnes and accounted for slightly more than two-thirds of the overall tonnage of special crops. The contribution from other commodities proved more varied, and ranged from a reduction of 70.2% on chickpeas to an increase of 40.9% on mustard seed. [See Table 1A-3 in Appendix 5.]

Carry-Forward Stock and Western Canadian Grain Supply

Although grain production has the most direct impact on the overall grain supply, the volume held over in inventory from the previous crop year also has a bearing. In fact, these carry-forward stocks typically account for about one-sixth of the grain supply.[7] These stocks tend to move in conjunction with changes in grain production, albeit in a lagging manner with less pronounced variations. They are also heavily weighted in favour of the CWB grains, which normally account for about three-quarters of the total.

Figure 4: Western Canadian Grain Supply



The general deterioration in production witnessed throughout the first few years of the GMP was mirrored in steadily diminishing carry-forward stocks, which fell from 9.8 million tonnes at the end of the 1999-2000 crop year, to a low of 5.5 million tonnes at the close of the 2002-03 crop year.[8] In much the same way, stock levels increased as grain production rose over the course of the next few years.[9]

Reduced grain production in the 2007-08 crop year precipitated a decline in the amount of grain carried forward into the 2008-09 crop year. Totalling some 5.6 million tonnes, these stocks proved to be 24.2% less than those carried forward a year earlier. This marked a second consecutive contraction in the amount of the carryover, and the second smallest yet witnessed during the GMP. This substantial drawdown was more than a product of reduced output. It also came as a result of the favourable market conditions that existed in the 2007-08 crop year, wherein strong demand was complemented by heightened commodity prices. When combined with 60.4 million tonnes of new production, the overall grain supply for the 2008-09 crop year totalled 66.0 million tonnes, a gain of 17.9% over the previous crop year's 56.0 million tonnes. Notwithstanding the impact of reduced carry-forward stocks, this constituted the second largest grain supply yet recorded during the GMP.[10] [See Table 1A-2 in Appendix 5.]

Although decreases were recorded in the carry-forward stocks for every province, the scope of these declines varied widely. These ranged from a very modest 1.1% reduction in British Columbia to a more substantive 31.6% drop in Manitoba. The declines posted by Saskatchewan and Alberta proved more representative, falling by 23.0% and 23.1% respectively. Despite the effect of a 0.3-million-tonne reduction in Manitoba's carry-forward stocks, the reductions posted by Saskatchewan and Alberta had the largest material impact, falling by 0.8 million tonnes and 0.6 million tonnes respectively. Much of this was tied to reductions among the

[6] 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.

[7] 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.

[8] This pattern can best be seen when gauging the decline in grain production against that of carry-forward stocks in the first four years of the GMP.

[9] Carry-forward stocks for the 2006-07 crop year reached a GMP record of 12.4 million tonnes.

[10] The grain supply reached a record 66.8 million tonnes during the GMP in the 2005-06 crop year.

CWB grains, with the wheat carryover falling by 1.4 million tonnes and durum by 0.3 million tonnes. Tempering these reductions was barley, which posted a 0.1-million-tonne increase. The majority of non-CWB grain stocks posted reductions as well, with the most significant being a 0.2-million-tonne reduction for canola. Running counter to these decreases was the carry-forward for oats, which increased by 0.4 million tonnes.

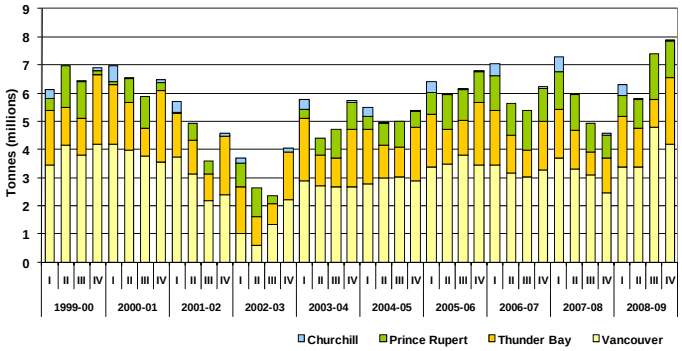
1.2 Rail Traffic *[Measurement Subseries 1B]*

The amount of regulated grain moved by rail to western Canadian ports increased by 20.1% in the 2008-09 crop year, with the total volume having risen to a record 27.3 million tonnes from 22.8 million tonnes the year before.[11] This proved to be consistent with, but somewhat greater than, the overall grain supply's previously noted 17.9% increase. [See Tables 1B-1 through 1B-4 in Appendix 5.]

Origins by Province

This improvement in the grain supply was reflected in increased railway shipments from each of the primary grain-producing provinces. The largest nominal gain in tonnage, involving an additional 2.7 million tonnes, was derived from Saskatchewan, which saw shipments rise by 25.5% to 13.3 million tonnes. A further 1.1 million tonnes were gained from Manitoba shipments, which increased by 43.2% to 3.6 million tonnes. Alberta's gain proved to be a lesser 0.9 million tonnes, having risen by 9.8% to 10.3 million tonnes. Running counter to these results were those from British Columbia, where rail shipments amounting to somewhat under 0.2 million tonnes fell by 43.9%.[12]

Figure 5: Railway Grain Volumes



Destination Ports

The port of Vancouver remained the principal export destination for western Canadian grain in the 2008-09 crop year. Traffic to Vancouver totalled 15.7 million tonnes, a gain of 25.5% against the 12.5 million tonnes directed there a year earlier. This constituted the largest volume yet witnessed during the GMP, with the port's share of total rail shipments having increased to 57.6% from 55.1% the year previous.[13] Much of this gain was reflected in a lesser increase for Prince Rupert. Total shipments to this northern port amounted to 4.7 million tonnes, which constituted an increase of 5.1% from the previous crop year's 4.4 million tonnes. At the same time its overall share also fell, to 17.1% from 19.6% a year earlier. This share also proved to be well below the GMP record of 20.3% garnered just two years before.

In the face of the relative gains made by both Vancouver and Prince Rupert in recent years, the volume and relative share of traffic directed to Thunder Bay has largely been reduced. Despite this, the port realized a 26.2% increase in rail shipments over the previous year, and again ranked as the second most important

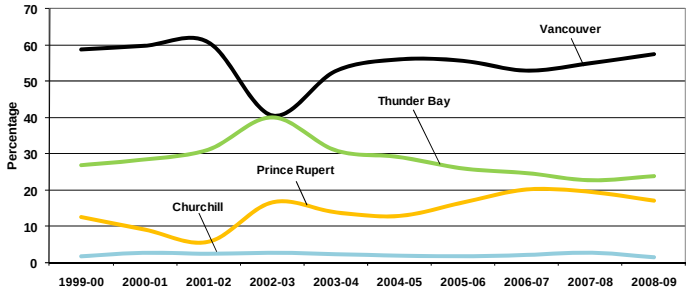
[11] The railway grain traffic referred to includes only that portion moving to a designated western Canadian port in accordance with the provisions of the Canada Transportation Act. As such, it does not include grain traffic that may have originated in western Canada but that was destined to other points in North America, be it those of eastern Canada, the United States of America, or Mexico.

[12] During the GMP, statistics relating to the railway movement of grain in western Canada centre on the volume handled by federally regulated carriers. Since CN's acquisition of the provincially-regulated BC Rail in the closing days of the 2003-04 crop year, the traffic statistics now gathered during the GMP incorporate all of the grain shipped by rail from British Columbia.

[13] Vancouver's share of the total railway volume fell to its lowest level during the GMP, 40.6%, in the 2002-03 crop year. This was largely due to a labour disruption that effectively prevented grain from moving through the port of Vancouver for much of that crop year. Although the port's share has since rebounded, it remains below the 60.8% garnered in the 2001-02 crop year.

destination for export grain. Moreover, with total shipments for the crop year having risen to 6.5 million tonnes, rail volume to Thunder Bay proved to be the largest in three years. Churchill was the only port in western Canada to report a reduction in rail traffic, with total shipments having fallen by 32.9% to 0.4 million tonnes. This translated into a 1.2-percentage-point loss in share, which fell to 1.5% from its GMP record of 2.7% a year earlier.

Figure 6: Railway Grain Volumes – Destination Port

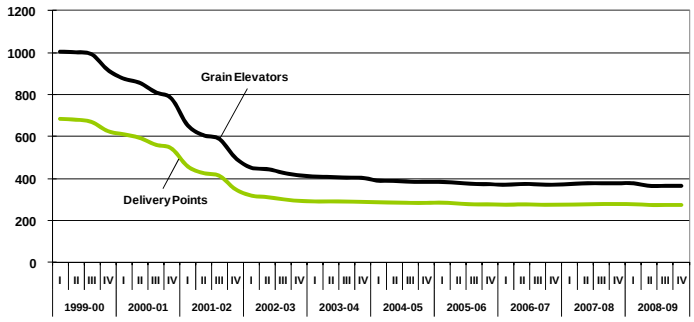


Notwithstanding these year-over-year changes, it must be noted that the roles accorded to each of these ports has begun to change in the face of the gains made in recent years by Prince Rupert. There can be little doubt that Prince Rupert has commercially benefited from the introduction of preferential railway freight rates and the better allocation of railcars to the corridor. Even so, there are overarching market influences that have also had an important impact, not the least of which involves the continuing growth in Canada's Asia-Pacific grain trade. As long as this demand remains sustained, it is likely that the GHTS will continue to see a greater portion of its total volume being directed to Prince Rupert for export.

1.3 Country Elevator Infrastructure *[Measurement Subseries 1C]*

The decline in the number of licensed country elevators in western Canada remains one of the most visible facets of the GHTS's continuing evolution. At the outset of the 1999-2000 crop year, there were 1,004 licensed primary and process elevators on the prairies. By the time the 2008-09 crop year began nine years later, that number had already fallen by 62.4% to 378.[14] [See Tables 1C-1, and 1C-2 in Appendix 5.]

Figure 7: Licensed Grain Elevators and Delivery Points



During the first three years of the GMP, the rate at which the numbers of facilities were declining at an accelerated rate. A total of 87 facilities were removed from the network in its first year, followed by 136 in the second, and 281 in the third. However, this pace clearly began to show signs of waning when only 84 elevators were removed from the system in the 2002-03 crop year. This deceleration was affirmed by even more modest reductions in the four ensuing crop years. The 2007-08 crop year, however, ran counter to this general trend, with seven facilities having been added back into the system.

The 2008-09 crop year marked a return to the earlier pattern, with the total number of licensed elevators in western Canada having fallen by twelve, with 366 remaining. This brought the total reduction in elevator facilities recorded since the beginning of the GMP to 638, or 63.5%. The limited scope of the changes

[14] The reduction in licensed elevators cited here reflects the net change arising from elevator openings and closures over a given period. This net reduction should not be construed as elevator closures alone. Elevator openings and closures are discussed elsewhere in this report, and the statistics relating to them are presented in Tables 1C-7 through 1C-12.

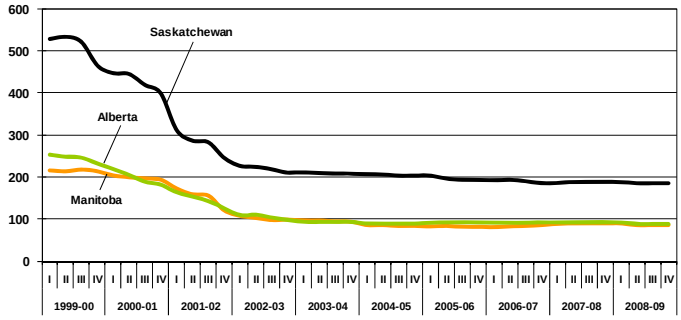
recorded in the last six crop years continues to suggest that the grain companies have effectively concluded their elevator rationalization programs.

The same is true of grain delivery points, which have been declining in conjunction with the reduction in licensed elevators. By the close of the 2007-08 crop year the scope of this network had been reduced by 59.7%, to 276 delivery points from the 685 that had been in place at the beginning of the GMP. The 2008-09 crop year saw another four delivery points removed from the system, thereby decreasing the overall number by 1.4%, to 272. This brought the net reduction in delivery points over the course of the last decade to 60.3%, with all of the licensed elevators in some 413 communities having now been closed.

Since the beginning of the GMP, grain deliveries have been concentrated at a comparatively small number of locations. In the 2007-08 crop year – the last for which statistics are available – about 80% of the grain drawn into the prairie elevator system was made at 91, or 39.9%, of the GHTS's 228 active delivery points. Proportionally, although this share proved somewhat greater than the 33.5% recorded in the GMP's base year, it remains consistent with the higher values observed since the 2003-04 crop year. To a large extent, this wider distribution is correlated with the general reduction in the scope of the elevator network itself. [impact on the number of delivery points] [See Table 1C-13 in Appendix 5.]

Provincial Distribution

Figure 8: Licensed Grain Elevators – Provincial Distribution



With the close of the 2008-09 crop year, 185 of western Canada's licensed elevators were situated in Saskatchewan. This constituted 50.7% of the system's active total, and proved to be consistent with the proportion held by the province since the beginning of the GMP. This was followed in succession by Alberta and Manitoba, whose respective 88 and 86 elevators each accounted for about another one-quarter. The GHTS's remaining seven facilities were divided between British Columbia and Ontario.[15]

Although Saskatchewan posted the greatest numerical reduction in licensed facilities, with the closure of 342 elevators, this represented only the second largest relative decline since the beginning of the GMP, 64.9%. In comparative terms, Alberta's 164-elevator reduction proved slightly greater, having fallen by 65.1% over the course of the GMP. This was followed by a 60.2%, or 130-elevator, reduction in Manitoba facilities. The comparable nature of these reductions continues to underscore the fact that the rationalization of prairie elevators has been broad based, and that it has not unduly targeted the facilities of any one province.

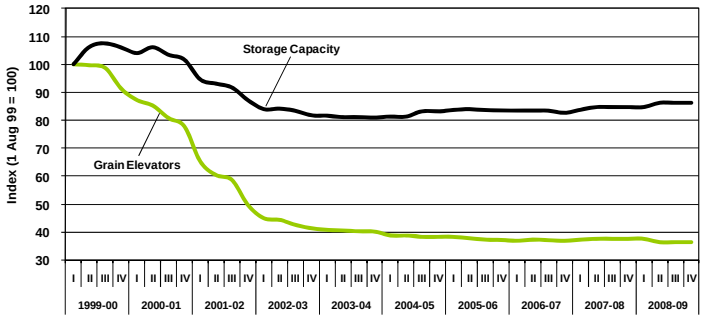
Elevator Storage Capacity

Despite a 63.5% decline in the overall number of elevators, this network's storage capacity fell by a comparatively modest 13.8%. As outlined in the Monitor's previous reports, this lower rate of decline simply reflects the fact that while grain companies were methodically closing their less-efficient smaller elevators, they were also expanding and opening larger ones. In fact, during the first year of the GMP, the capacity added through investment in larger facilities actually outpaced that removed by the closure of smaller elevators. This initially produced an increase in storage capacity, which climbed from the benchmark level of 7.0 million tonnes at the beginning of the GMP to a peak of 7.5 million tonnes in the third quarter of the 1999-2000 crop year.

[15] There were seven CGC licensed elevators located outside the provinces of Manitoba, Saskatchewan, and Alberta as at 31 July 2009. Specifically, these included one in Ontario, and six in British Columbia. Changes in the elevator infrastructure of these provinces are generally not highlighted given their limited influence, but are included in the wider statistics pertaining to the GHTS as a whole.

Over the course of the next four crop years, however, the system's storage capacity fell largely in concert with the general decline in elevators, dropping at a rate of about 3,500 tonnes per facility closed. By the end of the 2003-04 crop year, total GHTS storage capacity had fallen by 19.0% to 5.7 million tonnes. This trend began to reverse itself in the 2004-05 crop year when the system's total storage capacity posted an increase of 157,000 tonnes.[16] By the close of the 2007-08 crop year, the system's total storage capacity had risen to almost 6.0 million tonnes; its highest level in six years. The expansion of several elevators in the 2008-09 crop year resulted in another 106,500 tonnes of storage capacity being added. Although this amounted to a gain of just 1.8%, it marked the first instance since the 2001-02 crop year wherein overall storage capacity had again reached the 6.1-million-tonne level.

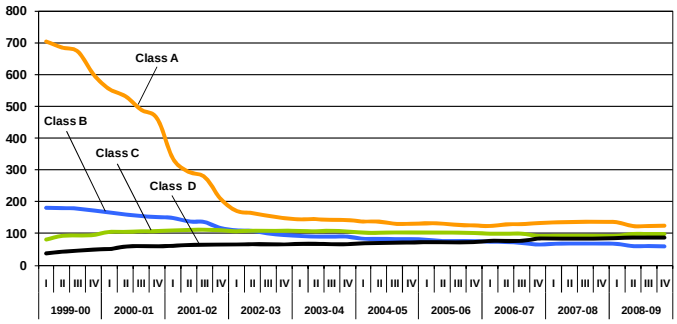
Figure 9: Relative Change in Grain Elevators and Storage Capacity



Facility Class

For comparative purposes, the GMP groups elevators into four classes. These classes are based on the loading capability of each facility, which is in turn defined by the number of car spots each possesses. Those with less than 25 car spots are deemed to be Class A facilities; those with 25-49, Class B; those with 50-99, Class C; and those with 100 or more, Class D.[17] In addition, the GMP deems Class C and D facilities to be high-throughput elevators given their ability to load railcars in larger numbers.

Figure 10: Licensed Grain Elevators – Facility Class



Within this framework, the composition of the elevator network can be seen to have changed significantly over the past decade. The most striking aspect of this change has been the 82.6% decline in the number of Class A facilities, which dropped to 123 from the 705 in place at the beginning of the GMP. This was followed closely by a 67.8% reduction in Class B facilities, which fell to 58 from 180 over the same period. Juxtaposed against this was the trade's pronounced shift towards the use of high-throughput elevators. During this same ten-year period the number of Class C facilities grew by 22.2%, to 99 from 81, while the number of Class D facilities more than doubled, increasing by 126.3%, to 86 from 38.

Clearly, these statistics illustrate that the primary target in elevator rationalization has been the conventional wood-crib facility. Of the 877 elevator closures recorded since the beginning of the GMP, 677 related to the shutdown of Class A facilities.[18] To a large extent, this was because the economic efficiency of the high-

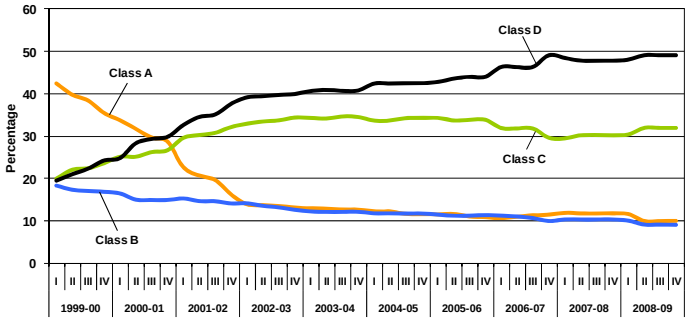
[16] As was the case in the first year of the GMP, this increase is explained by an expansion in high-throughput storage capacity that more than offset the reduction that came from the closure of smaller facilities.

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

[18] 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.

throughput elevator had rendered these facilities obsolete. But they had also been undermined by the railways' system of financial incentives that encouraged grain to move in blocks of 25 or more railcars at a time.

Figure 11: Share of Storage Capacity – Facility Class

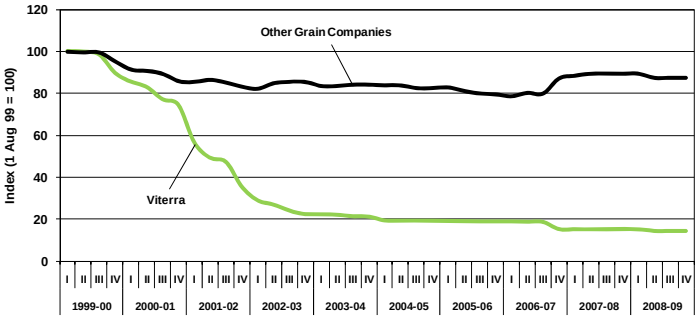


These same forces also disfavoured the Class B facilities, albeit not to the same degree. More particularly, even though grain movements from these facilities were eligible to receive discounts under the railways' incentive programs, they were not as generous as those accorded shipments from high-throughput elevators. Moreover, these smaller block discounts were later progressively reduced and eliminated.[19] As a result, over the course of the past ten crop years, a total of 136 Class B facilities also closed. Together, Class A and B facilities account for 92.7% of all recorded elevator closures. [See Tables 1C-10 through 1C-12 in Appendix 5.]

In contrast to their share of elevator closures, only 55.6% of the 239 elevators opened during this period were Class A and B facilities.[20] This differential calls attention to the fact that high-throughput facilities accounted for a much greater proportion of elevator openings than closures, 44.4% versus 7.3% respectively. Class C and D elevators were the only ones to have posted net increases since the 1999-2000 crop year. The migration to high-throughput elevators reached a milestone by the close of the 2008-09 crop year when, for the first time in the history of the GMP, high-throughput facilities accounted for a narrow majority, 50.5%, of all elevators within the GHTS. Their stake in the system's storage capacity reached equally above another threshold for the first time, climbing three full percentage points to attain an 81.0% share. Both values differ considerably from the 11.9% and 39.4% shares they respectively held at the beginning of the GMP. [See Tables 1C-7 through 1C-9 in Appendix 5.]

When taking into account all facility classes, the number of elevators having the ability to load cars in blocks of 25 or more can be seen to have fallen by 18.7% over the course of the past decade, to 243 from 299, while its associated storage capacity has actually increased by 34.8%, to 5.5 million tonnes from 4.1 million tonnes.[21] More importantly, by the end of the 2008-09 crop year, these facilities accounted for 66.4% of the system's elevators, and 90.1% of its storage capacity. As was the case with high-throughput elevators, these proportions are significantly greater than the 29.8% and 57.7% shares respectively held at the beginning of the GMP. [See Tables 1C-4 through 1C-6 in Appendix 5.]

Figure 12: Licensed Grain Elevators – Grain Company



[19] 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.

[20] Many of the 133 Class A and B elevator openings recorded during this period reflect the acquisition of previously closed facilities, and their subsequent reopening by a different grain company.

[21] The inclusion of Class B facilities, which declined from 180 to 58 during this period, effectively counters the smaller numerical increase in Class C and D elevators.

Grain Companies

For a number of grain companies, the key to improving the economic efficiency of their grain-gathering networks has been to rationalize their elevator assets. With the cornerstone of this strategy being the replacement of smaller elevators by larger high-throughput facilities, it follows that this would better lend itself to those grain companies having the largest physical networks. The largest grain companies in existence at the beginning of the GMP proved to be the primary practitioners of elevator rationalization. In fact, the 600 elevator closures posted by Viterra Inc. and its antecedent companies accounted for 94.0% of the 638-elevator decline in GHTS elevators recorded over the last decade.[22]

Although the first two years of the GMP witnessed the closure of 180 of the company's 700 heritage elevators, the largest reduction came a year later when Viterra's predecessor companies culled 273 facilities from those that remained. By the close of the 2001-02 crop year, the company had effectively shaken off two-thirds of its network. And while further declines were noted over the course of the 2002-03 through 2004-05 crop years, the scope of these annual reductions strongly suggested that the rationalization process was coming to an end.[23] Moreover, were it not for the agreements Saskatchewan Wheat Pool struck with James Richardson International Limited and Cargill Limited in order to gain their support for its acquisition of Agricore United, it seems unlikely that Viterra's facility count would have fallen much below 130.[24] Nevertheless, the resulting transfer of 24 Viterra elevators to these firms reduced the company's network to 106 by the end of the 2006-07 crop year, where it remained throughout the course of the next twelve months. The 2008-09 crop year saw the first post-merger reduction in the size of the company's network, which was reduced by six to an even 100 elevators. In general terms, this meant that 85.7% of the facilities in place ten years earlier were no longer being used to receive grain on the company's behalf.

Amongst the larger remaining grain companies, Pioneer Grain and Cargill posted the next deepest cuts in their elevator networks. However, with reductions of 40.0% and 32.2% respectively, their rationalization efforts were notably less than those undertaken by Viterra. Moreover, these values were tempered as a result of the elevator acquisitions made by these two companies in the wake of Saskatchewan Wheat Pool's purchase of Agricore United.[25] Paterson Grain and Parrish and Heimbecker followed suit with reductions of 28.0% and 19.2% respectively.

Not all of these reductions marked a permanent facility closure. In a number of instances, the elevators closed by the larger grain companies were sold, sometimes re-emerging as facilities operated by smaller, independent grain companies such as Delmar Commodities, Farmers Grain Dealers Inc. (FGDI), Providence Grain Group, and Westlock Terminals.[26] As a result, the number of elevators operated by these smaller grain companies actually increased by 71.4% in the last decade, climbing to 96 from 56.[27]

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[22] Viterra Inc. was formed in 2007 following Saskatchewan Wheat Pool's purchase of Agricore United, which was itself a 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 600 closures cited here represent the consolidated net reduction in the number of elevators operated by Viterra's predecessor companies, which had a combined network of 700 elevators at the outset of the GMP.

[23] The elevator reductions posted by Viterra's predecessor companies in the 2002-03, 2003-04 and 2004-5 crop years amounted to 91, 8 and 14 respectively.

[24] Immediately prior to the formation of Viterra Inc., Saskatchewan Wheat Pool and Agricore United had a combined total of 130 licensed country elevators. The agreement to sell 24 of these to James Richardson International Ltd. and Cargill Limited effectively resulted in a remaining network comprised of 106 facilities.

[25] Pioneer Grain acquired 15 of the 24 elevators sold by SWP while Cargill purchased the other nine.

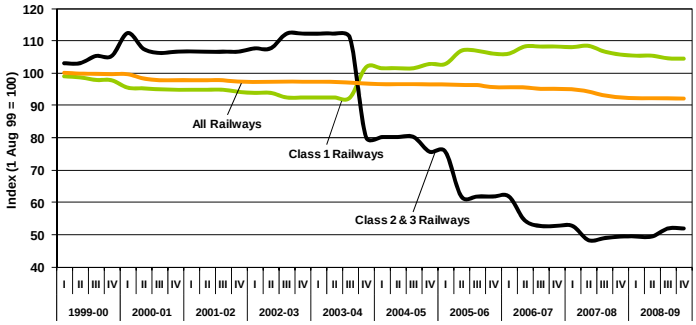
[26] In some cases, such as in the merger that led to the creation of Agricore United, Canada's Competition Bureau mandated that the company divest itself of specific facilities. Some of the independent grain companies cited here now operate these elevators.

[27] The reference to smaller grain companies can be misleading since it refers to the scope of a company's activities within western Canada. By way of example, seven of the 96 elevators cited here are operated through subsidiaries of US-based Archer Daniels Midland, one of the largest agricultural processors in the world.

When taken together for comparative purposes, it can be seen that the collective number of elevators operated by companies other than Viterra has fallen by only 12.5%, to 266 from 304, over the course of the GMP. What is more, in the face of the deeper cuts made by Viterra, these companies now account for over two-thirds of the GHTS's total elevators and associated storage capacity.[28] The shares attributable to Viterra have fallen correspondingly during this same period, with the company accounting for 28.0% of all elevators and 31.9% of its associated storage capacity. Despite this reversal, Viterra remains the dominant handler of grain in western Canada. And while the company has built up the efficiency of its remaining elevator network, it has been equally clear that Viterra's smaller rivals have also been adept at adjusting to these changes in the competitive environment. [See Table 1C-3 in Appendix 5]

1.4 Railway Infrastructure *[Measurement Subseries 1D]*

Figure 13: Relative Change in Route-Miles – 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.[29] Although the railway network has changed over the lastdecade, the modest scope of this change contrasts sharply with that already discussed for the elevator system. By the end of the 2007-08 crop year, the net reduction in western Canadian railway infrastructure amounted to just 7.7%, with the network's total mileage having been reduced to 17,978.0 route-miles overall. The largest share of this 1,490.2-route-mile reduction came from the abandonment of 1,295.9 route-miles of light-density, grain-dependent branch lines.

In addition to the reduction in overall mileage, there were other changes to the makeup of the railway network. Much of this related to the transfer by CN and CP of various branch line operations to a host of new shortline railways. This practice, which began in the mid 1990s, was one of the cornerstones in a wider industry restructuring that effectively resulted in slightly more than one-quarter of the railway network in western Canada being operated by smaller regional and shortline carriers.

The first significant variation in this restructuring strategy came in 2004 when CN acquired the operations of what was then western Canada's only Class 2 carrier, BC Rail Ltd. Since then, the waning financial health of most shortline carriers led many to either sell or rationalize their own operations. This resulted in a number of shortlines operations reverting back to the control of the Class 1 carrier that had spun them off in the first place. Perhaps the most striking of these reversals came in January 2006 when RailAmerica Inc. sold most of its holdings in western Canada back to CN.[30] This was followed later that same year by CN's reacquisition of what had evolved into the Savage Alberta Railway, and the Athabasca Northern Railway in late 2007. In the wake of these transactions, not a single freight-based shortline was left operating in Alberta.

[28] By the end of the 2008-09 crop year, grain companies other than Viterra accounted for 72.7% of the elevators, and 68.6% of the associated storage capacity. This marks a significant increase over the 30.3% and 41.7% shares respectively held at the outset of the GMP.

[29] 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 Hudson Bay Railway or the Great Western Railway.

[30] This sale encompassed 702.8 route-miles of railway infrastructure grouped under three separate operations: the Central Western Railway; the Lakeland and Waterways Railway; and the Mackenzie Northern Railway.

The disappearance of these shortline railways served to again realign the scope of Class 1 and non-Class 1 carrier operations. By the end of the 2007-08 crop year, CN and CP directly managed a total of 15,683.0 route-miles of track, which constituted a net gain of 5.8% over the 14,827.9 route-miles they controlled at the beginning of the GMP. In comparison, the network operated by western Canada's Class 2 and 3 carriers declined by 50.5%, to 2,295.0 route-miles from 4,640.3 route-miles.

It must be noted that many of these shortline operations had been established with an eye towards preserving railway service on what were regarded as uneconomic branch lines, with many of these being dependent on the movement of grain. Despite their best efforts, most shortline railways were simply unable to reshape the economics that gave rise to the broader elevator-rationalization activities of the grain industry. Although there have been some noteworthy successes in attracting new business, much of which has been tied to increased producer-car loading, these carriers have largely been unable to compensate for the traffic lost from the continued closure of these smaller local elevators.

This does not mean that the creation of new shortlines has ceased altogether. The 2008-09 crop year saw the establishment of another such operation in western Canada. In March 2009 the Great Sandhills Railway formally assumed operations on a Saskatchewan branch line that CP had marked for discontinuance.[31] Although traffic along the line between Swift Current and Burstall had been declining for a number of years, the continuation of rail service was deemed to be a commercial necessity for the Great Sandhills Terminal, which has operated a local high-throughput elevator near Leader, Saskatchewan, since 1995. Given this, the company entered into an agreement with CP to acquire and operate the line largely in its own self interest.[32] The transfer of this line effectively increased the span of the shortline network by 0.5%, to 2,411.3 route-miles in total.

By the close of the crop year there were additional signs of a possible shortline revival. In late June 2009, the Boundary Trail Railway (BTR) formally opened for business, hauling its first loaded producer-cars over a 23-mile stretch of former CP track extending from Manitou, Manitoba, to Morden.[33] Following the example first advanced with the purchase of the Great Western Railway several years earlier, the BTR became the first producer-controlled shortline to establish itself in Manitoba.[34] Moreover, there were indications that other such setups might well follow.

These transfers, combined with the abandonment of another 73.3 route-miles of infrastructure, had only a modest impact on the prevailing balance between the Class 1 and non-Class-1 carriers. Railway infrastructure under CN and CP management fell to 15,493.4 route-miles by the end of the 2008-09 crop year, with their overall share of the western Canadian network total having fallen to 86.5% from 87.2% a year earlier. This, however, still proved to be significantly greater than the 76.2% share they held at the beginning of the GMP. In comparison, the network operated by the remaining shortline carriers increased by 5.1%, rising to 2,411.3 route-miles in comparison to 2,295.0 route-miles a year earlier.[35] Notwithstanding this immediate gain, their relative share of the total rail infrastructure proved to be little more than half of what it once had been, accounting for 13.5% of the total compared to 23.8% a decade earlier. [See Table 1D-1 in Appendix 5.]

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[31] Extending over a distance of 116.3 route-miles, the line encompassed what remained of CP's Burstall and Empress subdivisions.

[32] The Great Sandhills Railway (GSR) was established as a subsidiary of Great Sandhills Terminal. Funding for the $6.3-million transaction was secured through the issuance of additional equity in the company along with a $1.9-million interest-free loan from the Saskatchewan government. In addition to its parent, the GSR also provides rail service to several locally situated grain elevators, producer-car loading sites and other customers.

[33] Although negotiations for the line's purchase from CP had begun a year earlier, the company appeared to have had significant difficulty in raising the $4.3 million needed to conclude the sale. Contributions from both the Canadian and Manitoban governments, which came in the form of a federal grant as well as a forgivable provincial loan, were instrumental in finalizing the transaction.

[34] One of the more successful shortline operations in Saskatchewan came as a result of the direct investment by producers in the enterprise itself. The investment made by local governments, business interests and producers in their takeover of the Great Western Railway effectively served to define a model that was later followed in the creation of others, including Red Coat Road and Rail, the Fife Lake Railway and the Torch River Railway.

[35] The total number of route-miles operated by shortline railways reached a GMP low of 2,244.0 midway through the 2007-08 crop year. With the creation later that same year of the 27.8-mile long Torch River Rail Inc., and the 23.2-mile long Boundary Trail Railway, the overall size of this network was increased by 51.0 route-miles.

Even with the establishment of the railway operations discussed above, the shortline industry in western Canada continues to face challenges. Perhaps nowhere was this more evident than in the actions taken by the Carlton Trail Railway which, in confronting the dual problems of declining volumes and rising costs, suspended operations over almost two-thirds of its 279-mile network at the beginning of April 2009. With the tonnage originated by shortline carriers having clearly faltered in comparison to that of the Class 1 carriers, it remains to be seen whether or not new entrants can build the volumes needed to sustain themselves financially.

Branch Line Discontinuances

A total of 73.3 route-miles of infrastructure were removed from the railway system in the 2008-09 crop year. This proved to be but a small fraction of the 517.3 route-miles that had been culled a year earlier.[36] All of this mileage was attributable to CN's abandonment of several branch lines, most of which were located in Saskatchewan. The most substantive reduction, incorporating some 53.2 route-miles, came early in the first quarter when CN abandoned its Matador and White Bear subdivisions; two lines extending southwards from its Mantario subdivision.[37] An additional 6.1 route miles were removed from the system in February 2009 when CN closed what remained of its former Stettler subdivision in Alberta.[38] A final 14.0-mile reduction was made in June 2009 when the carrier abandoned the last vestiges of its Saskatchewan-based Rhein subdivision. These abandonments served to reduce the scope of the overall network by just 0.4%, to 17,904.7 route-miles.

These actions also enlarged the overall reduction in western Canadian railway infrastructure since the beginning of the GMP to 1,563.5 route-miles, or 8.0%. And while the abandonments made in the last crop year proved modest in comparison to a record 517.3 route-miles the year before, the network plans of CN and CP show almost 900 route-miles of railway infrastructure being targeted for discontinuance over the course of the next three years.[39] Even if acted upon, the full scope of what ultimately would become a 12.7% reduction in railway infrastructure would still fall well short of the 63.5% decline in licensed elevators already recorded.

Local Elevators

As discussed earlier, while the railway network has changed comparatively little over the course of the past decade, the elevators it serves have declined significantly. In broad terms, these facilities have decreased by 64.6% in number, to 347 from 979, and by 13.7% in associated storage capacity, to 6.0 million tonnes from 6.9 million tonnes.[40]

Moreover, the collapse of several shortline railways changed the nature of the decline in elevators tied to both the Class 1 and non-Class 1 railways. Until about the 2001-02 crop year, the major carriers were witnessing the closure of comparatively more elevators than their smaller counterparts. But this pattern has changed, with shortline-served elevators now declining at a comparatively faster rate. By the close of the 2008-09 crop year, the number of elevators served by the Class 1 carriers had fallen by 63.4%, to 328 from 897, while those affiliated with the non-Class 1 carriers had declined by 76.8%, to 199 from 82. The differential proved even more significant when gauging the decline in storage capacity: only 9.2% in the case of elevators local to Class 1 carriers versus 74.8% for those tied to non-Class 1 carriers.

[36] The 517.3 route-miles removed from the system in the 2007-08 crop year was the largest single-year reduction in the history of the GMP.

[37] CN's Matador subdivision comprised a 29.7-route-mile stretch of track that extended from Mantario Junction to Kyle. The White Bear subdivision ran 23.5 miles from Eston Junction to Lacadena.

[38] CN's Stettler subdivision had been sold to the Central Western Railway in 1986. Although much of the line was abandoned in the years that followed, RailAmerica sold what little remained of the CWR back to CN in January 2006. The section abandoned in February 2009, which had effectively been downgraded to a spur off of CN's Drumheller subdivision, extended from Dinosaur Junction to Morrin. In late 2008 CN added much of its Drumheller subdivision to the list of discontinuance candidates under its Three Year Network Plan.

[39] About 60% of the route-miles targeted for discontinuance at the end of July 2009 were attributable to CP, with the remaining 40% having been earmarked by CN.

[40] The reductions cited here relate only to those facilities directly served by rail. These figures differ from those reported for the entire elevator network, which includes off-track facilities.

Even with the benefit of recent line transfers, it has been clear for some time that the grain companies have been investing in facilities served by CN and CP rather than the shortlines. To a large extent, this is reflected in the industry's decision to situate virtually all of its high-throughput elevators along the primary routes of both major railways.[41] [See Table 1D-6 in Appendix 5.]

Still, these net declines ignore some of the intermittent gains that were made by the non-Class 1 carriers over the course of the GMP. Specifically, they fail to recognize that the number and storage capacity of elevators tied to shortline railways actually increased in the first two years of the GMP, before later starting to fall. This was due chiefly to the establishment of new entrants, including the Southern Manitoba Railway, Red Coat Road and Rail, and the Great Western Railway. However, the elevator network served by these shortline railways shrank considerably over the course of the next eight crop years.

Grain-Dependent Network

Differing rates of decline are also evident between facilities local to the grain-dependent, and non-grain-dependent, railway networks.[42] Elevators situated along the grain-dependent network fell by 73.1% over the course of the past ten crop years, to 113 from 420. In the case of those situated along the non-grain-dependent network, the decline was a lesser 58.1%, having fallen to 234 from 559. On the whole, these patterns clearly indicate that the elevators tied to the grain-dependent railway network have been diminishing at a noticeably faster pace. This trend became particularly evident in the 2001-02 crop year when elevator reductions for the period reached a record 266.

The rate of decline for both networks has, however, substantially abated over the course of the last six crop years, largely in a reflection of the broader slowdown discussed previously. A total of six elevators were removed from the non-grain-dependent network in the 2008-09 crop year, which amounted to a reduction of

Figure 14: Relative Change in Local Elevators – Railway Class

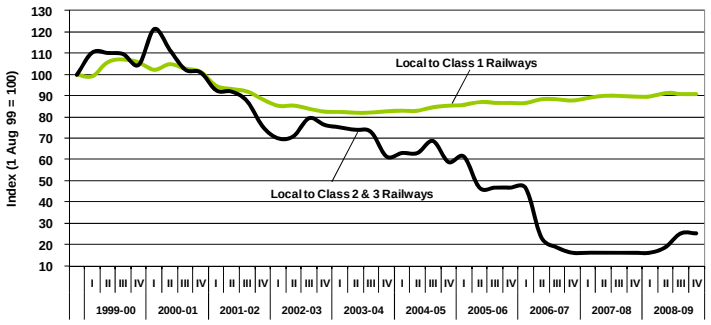


Figure 15: Relative Change in Storage Capacity – Railway Class

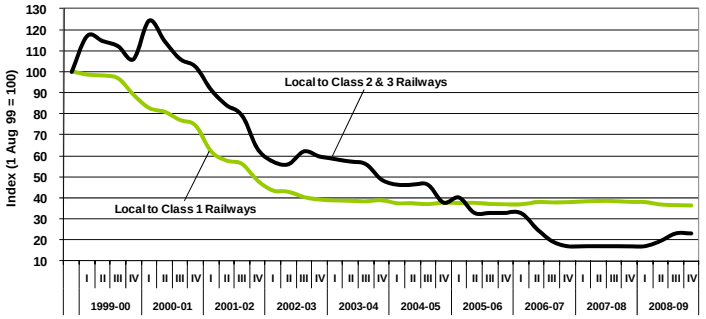
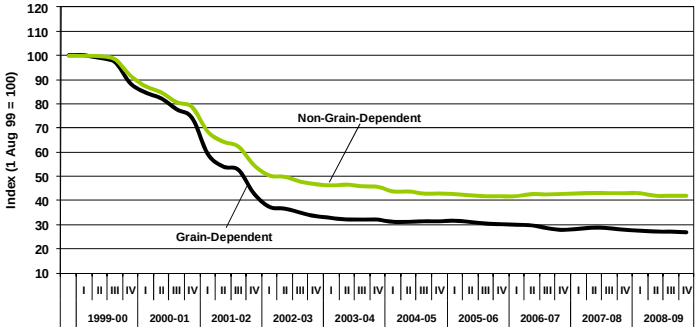


Figure 16: Relative Change in Local Elevators – Railway Line Class



[41] As at 31 July 2009 a total of 179, or 96.8%, of the GHTS's 185 high-throughput elevators were served directly by CN and CP.

[42] The term "grain-dependent branch line", while largely self-explanatory, denotes a legal designation under the Canada Transportation Act. Since the Act has application to federally regulated railways only, grain-dependent branch lines transferred to provincially regulated carriers lose their federal designation. As a result, the legally defined grain-dependent branch line network is a continuously changing one. 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.

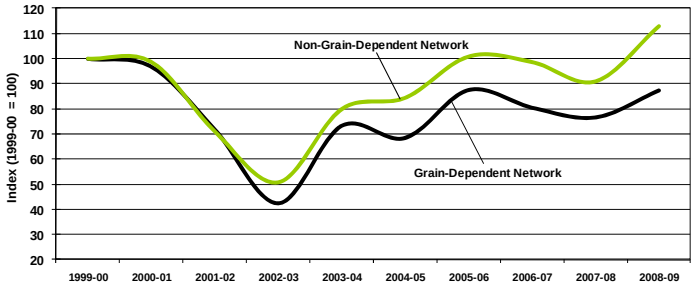
just 2.5%. By comparison, the facilities served by the grain-dependent network posted a slightly greater relative decline, dropping by a further four in number, or 3.4%.

Traffic Volumes

The composition of the traffic moved by the GHTS continues to reflect the changes that have been made in both the elevator and railway networks. In the 2008-09 crop year, the tonnage originated on the remaining non-grain-dependent network increased by 24.2%, to 19.2 million tonnes from 15.4 million tonnes a year earlier. At the same time, traffic originating at points on the remaining grain-dependent network increased by a notably lesser 14.1%, to 7.6 million tonnes from 6.6 million tonnes.

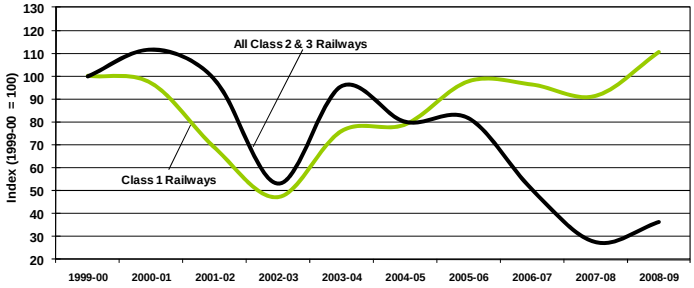
Moreover, the gap in originated traffic opened between the two networks six years earlier has continued to widen. With the close of the 2008-09 crop year, the tonnage forwarded from points along the non-grain-dependent network had risen by 12.9% from what had been moved in the GMP's base year. In comparison, the volume originated by the grain-dependent network had declined by 12.6%. As a consequence, the non-grain-dependent network's share of the total grain volume has steadily risen, reaching a GMP record of 71.7% in comparison to the base year's 66.2% share.[43] [See Table 1D-2 in Appendix 5.]

Figure 17: Relative Change in Grain Volumes – Railway Line Class



These same structural influences are also apparent in the relative volumes of grain originated by large and small carriers, particularly given CN's reacquisition of several shortline railways. Nominally, the tonnage originated by the major carriers increased by 20.9% in the 2008-09 crop year, while the volume originated by the smaller carriers increased by a more substantive 31.7%. Yet much of the latter's gain was bolstered by the reclassification of traffic originated by what became the Great Sandhills Railway as well as the Boundary Trail Railway. The creation and elimination of various shortline operations over the course of the GMP has tended to obscure the real change in traffic volume. Notwithstanding these recent gains, the tonnage originated by the shortlines has declined quite precipitously over the course of the last five crop years. In fact, shortline originations in the 2008-09 crop year were but a third of what they had been at the beginning of the GMP, while those of the Class 1 carriers moved marginally higher. [See Tables 1D-3 and 1D-5 in Appendix 5.]

Figure 18: Relative Change in Grain Volumes – Railway Class



Even so, the amount of traffic originated by shortline railways has not fallen as sharply as the number of licensed elevators served by them, which were reduced by 76.8% in the same period. In fact, the data indicates that increased producer-car loading has helped replace a significant portion of the grain volume that would otherwise have been lost

[43] The proportion of grain shipments originating on the non-grain-dependent network was extremely stable during the first three years of the GMP: 66.2% in the 1999-2000 crop year; 66.6% in 2000-01; and 65.9% in 2001-02. However, beginning with the 2002-03 crop year this proportion moved noticeably higher. The 71.7% share noted here constitutes a new high, surpassing the previous record of 70.7% set in the 2004-05 crop year.

following the closure of these licensed facilities.[44] This is evidenced by the fact that producer-car loadings accounted for an estimated 49.9% of the almost 0.8 million tonnes originated by shortline carriers in the 2008-09 crop year.[45] This proportion represents an effective tripling of the 14.8% it constituted in the first year of the GMP, and underscores the emergence of producer cars as an important revenue source for these carriers.

1.5 Terminal Elevator Infrastructure *[Measurement Subseries 1E]*

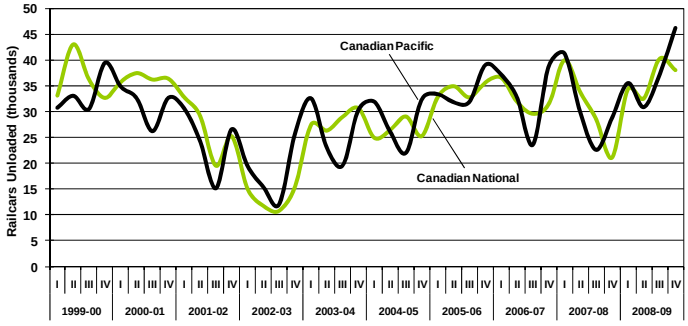
At the close of the 2007-08 crop year, the licensed terminal elevator network in western Canada comprised a total of 15 facilities with an associated storage capacity of 2.5 million tonnes. These values proved only marginally greater than those of the GMP's base year, which was benchmarked at 14 elevators with 2.6 million tonnes of storage capacity.[46] With seven of the elevators and 47.3% of the storage capacity, Thunder Bay held the largest share of these assets. Vancouver held second place with six facilities and 38.5% of the system's storage capacity. Prince Rupert and Churchill both followed with one terminal elevator apiece, and storage capacity shares of 8.5% and 5.7% respectively. [See Table 1E-1 in Appendix 5.]

And while the physical scope of the changes in this network has been minimal, there have been a number of significant changes in terminal ownership. Each of these was rooted in the various corporate mergers and acquisitions that have taken place during the GMP in the last decade.[47] With no further changes to the licensed terminal elevator network recorded in the 2008-09 crop year, it remained comprised of 15 facilities with 2.5 million tonnes of storage capacity.

Terminal Elevator Unloads

The number of covered hopper cars unloaded at terminal elevators during the 2008-09 crop year increased by a full 20.0%, rising to 294,335 carloads from 245,213 carloads the year before.[48] Both CN and CP witnessed increases in their respective handlings, although CN posted the smallest relative gain. Whereas CP's handlings increased by 22.4%, CN's handlings increased by a marginally lesser 17.7%. This allowed CP to displace CN as the GHTS's largest grain carrier in the 2008-09 crop year, with overall shares of 50.8% versus 49.2% respectively.

Figure 19: Relative Change in Terminal Unloads – CN and CP Origins



The increase in overall volume was felt most

[44] A number of producer-car loading sites have been established using elevator assets purchased from grain companies. In most cases, these elevators are used by local producers for trackside storage, and to facilitate the loading of railcars in larger lot sizes than was previously possible.

[45] The proportion of producer-car loadings is based on data obtained from the Canadian Grain Commission.

[46] The expansion noted here in the licensed terminal elevator network is somewhat illusionary since the changes were not truly physical but, rather, the product of having licensed three pre-existing facilities and de-licensed two others. The last actual physical addition to the network came in 1985 with the opening of Prince Rupert Grain Ltd.

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

[48] The statistics cited here are drawn from the records of the Canadian Grain Commission. Although consistent with the volumes cited as having been handled by the railways, these counts vary as a result of differing data collection and tabulation processes.

acutely by Vancouver and Thunder Bay. Of these, Vancouver posted the largest comparative increase, with its handlings for the 2008-09 crop year having climbed by 34.1% to a GMP record of 166,059 carloads.[49] Much of the gain made by Vancouver came as a result of a sharp upturn in the export of non-CWB grains, most notably canola. A modest reduction of 0.6% in carloads to Prince Rupert was, reported a for the crop year falling to 51,098 carloads.[50]

A similar disparity could be seen between the handlings at Thunder Bay and Churchill. Buoyed by a strong fourth quarter, Thunder Bay saw its handlings climb by 14.0%, with 72,482 cars having been unloaded. Running counter to this was Churchill, which posted a year-over-year reduction of 26.3%. The 4,696 cars unloaded at the port ranked as its third smallest volume during the GMP.

CN posted an overall increase of 17.7% in its handlings for the 2008-09 crop year. Almost half of the carrier's volume was derived from movements to Vancouver, which increased by 38.4% to 66,365 carloads. This marked the first time in three years that CN's handlings into Vancouver actually exceeded those into Prince Rupert, which fell by 0.6% to 51,098 carloads.[51] This reversal was primarily attributable to the downturn in traffic witnessed early in the crop year, which resulted in the carrier's movements to Prince Rupert being reduced by a factor of almost one-half in the first quarter. CN also posted an increase of 20.7% on its handlings into Thunder Bay, which rose to 22,854 carloads. Running counter to this were CN's unloads at Churchill, which declined by 26.3% to 4,696 carloads.[52]

In comparison, CP saw its overall handlings increase somewhat more substantially than CN's, climbing by 22.4% to 149,392 carloads. Of particular interest were the carrier's handlings into Vancouver, which increased by 31.4% to 99,694 carloads. This denoted the largest handling of any carrier at the port since the beginning of the GMP. Although CP maintained its dominance in the corridor, its share fell marginally to 60.0% from 61.3% a year earlier. Much the same was true of CP's handlings into Thunder Bay, where it unloaded 49,628 cars. With a somewhat more modest 11.2% increase in volume, CP saw its share on movements to the port slip to 68.5% from 70.2% the year before. [See Table 1E-2 in Appendix 5.]

Although the record is somewhat mixed, CP has often outpaced CN's quarterly and annual handlings since the 2002-03 crop year. This could largely be explained by a distribution in crop production that tended to benefit CP rather than CN. Still, CN's more recent efforts to promote its Prince Rupert gateway appear to have done much to counter this. Through reduced freight rates and a better allocation of cars to the corridor, CN has seen the volume of grain moving to Prince Rupert increase fairly significantly. Although this precipitated some erosion in its handlings to Vancouver, the net result has been a considerable narrowing in the relative shares accorded to both CP and CN, with both transporting about half of the overall volume.

1.6 Summary Observations

Overall grain production for the 2008-09 crop year climbed to 60.4 million tonnes, an increase of 24.4% from the 48.5 million tonnes recorded a year earlier. This ranked as the largest crop yet witnessed during the GMP, and exceeded the previous production record of 56.0 million tonnes set in the 2005-06 crop year by a comfortable 7.8%. The upturn in grain production was widespread, and evident in the output of all major producing provinces, as well as all grains, save oats.

[49] The previous record was set in the 2000-01 crop year, when 161,108 carloads were unloaded in Vancouver. The current year's handlings easily surpassed this amount by 3.1%.

[50] A record 54,651 carloads were unloaded at Prince Rupert in the 2006-07 crop year. The current year's handlings fell 6.5% short of this mark, ranking as the third largest in the GMP's history.

[51] As a CN-served destination, movements to Prince Rupert from CP-served origins have been comparatively limited. With the exception of the 2002-03 crop year, where a labour disruption in Vancouver resulted in a substantial amount of western Canadian grain being directed to Prince Rupert, CP's handlings into Prince Rupert have effectively been eliminated. No CP-originated traffic was reported to have been unloaded at Prince Rupert during the course of the 2008-09 crop year.

[52] The Hudson Bay Railway directly serves the Port of Churchill. Traffic destined to Churchill is received in interchange from CN at The Pas, Manitoba.

CWB grains posted the largest relative gain, with an increase of 27.9% compared to 19.4% for non-CWB grains. Total CWB grain production approached record levels, climbing to 36.7 million tonnes from 28.7 million tonnes a year earlier. More noteworthy was the output for non-CWB grains, which rose to 23.6 million tonnes, and raised the production record during the GMP for a second year in a row. When combined with 5.6 million tonnes of carry-forward stocks, the overall grain supply for the 2008-09 crop year reached 66.0 million tonnes, a gain of 17.9% over the previous crop year's 56.0 million tonnes. This constituted the second largest grain supply recorded during the GMP.

The amount of regulated grain moved by rail to western Canadian ports increased by 20.1% in the 2008-09 crop year, with the total volume having risen to a record 27.3 million tonnes from 22.8 million tonnes the year before. The port of Vancouver remained the principal export destination, with an overall increase of 25.5% raising its traffic volume to a record 15.7 million tonnes. In the face of this gain, shipments to Prince Rupert rose by a substantially lesser 5.1%, increasing to 4.7 million tonnes. Despite the focus on west coast movements, Thunder Bay still ranked as the second largest export destination for the GHTS, with its railway volume having increased by 26.2% to 6.5 million tonnes. Running counter to this was the port of Churchill, where the shipment of 0.4 million tonnes of grain produced a 32.9% decrease in volume.

The decline in the number of licensed country elevators in western Canada remains one of the most visible facets of the GHTS's continuing evolution. At the outset of the 1999-2000 crop year, there were 1,004 licensed primary and process elevators on the prairies. By the close of the 2007-08 crop year this number had been reduced to just 378. The 2008-09 crop year saw another twelve facilities removed from the system. This served to reduce the total number of licensed elevators in western Canada to 366. The limited scope of the changes recorded in the last six crop years continues to suggest that the grain companies have effectively concluded their elevator rationalization programs.

Despite a 63.5% decline in the overall number of elevators, the GHTS's storage capacity fell by a comparatively modest 13.8% in this same period. This lower rate of decline simply reflects the fact that while grain companies were methodically closing their less-efficient smaller elevators, they were also expanding and opening larger ones. By the end of the 2008-09 crop year, high-throughput facilities accounted for 50.5% of all elevators, and 81.0% of overall storage capacity. These values differ considerably from the 11.9% and 39.4% shares they respectively held at the beginning of the GMP. Much of this transformation came as a result of the initiatives taken by the forerunners of today's Viterra Inc., whose actions accounted for 94.0% of the net reduction in licensed elevators.

The dramatic changes to the makeup of the elevator system contrasts sharply with the more modest one posted by the railway network. Another 73.3 route-miles were removed from this system in the 2008-09 crop year. All of this mileage was attributable to CN's abandonment of several branch lines, most of which were located in Saskatchewan. By the close of the crop year, the net reduction in western Canadian railway infrastructure had reached 8.0%, with the total mileage having been reduced to 17,904.7 route-miles overall. The largest share of this 1,563.5-route-mile reduction came from the abandonment of 1,363.1 route-miles of light-density, grain-dependent branch lines.

The composition of the traffic moved by the GHTS continued to reflect the changes that have been made in both the elevator and railway networks. Although the tonnage forwarded from points along the non-grain-dependent network had risen by 12.9% from what had been moved a decade earlier, the volume originated by the grain-dependent network has declined by 12.6%. These same influences are also apparent in the relative volumes of grain originated by large and small carriers, particularly given CN's reacquisition of several shortline railways. The overall trend clearly shows the tonnage originated by shortline carriers to have declined far more precipitously than that of the Class 1 carriers since the beginning of the GMP.

The licensed terminal elevator network in western Canada stood unchanged and the close of the 2008-09 crop year, comprising a total of 15 facilities with an associated storage capacity of 2.5 million tonnes. These facilities oversaw the unloading of 294,335 covered hopper cars, a gain of 20.0% over the 245,213 carloads unloaded a year earlier. CP displaced CN as the GHTS's largest grain handler, taking an overall share of 50.8% versus 49.2% respectively.

Section 2: Commercial Relations

One of the objectives of the government's regulatory reforms was to provide the GHTS with a more commercial orientation. To this end, a cornerstone element of these reforms was the introduction, and gradual expansion of tendering for Canadian Wheat Board (CWB) grain shipments to western Canadian ports. Since the 2003-04 crop year, the CWB has committed itself to moving 40% of its grain shipments using a combination of tendering and advance car awards.

Yet the government also expects that industry stakeholders will forge new commercial processes that will ultimately lead to improved accountability. The purpose of this monitoring element is twofold: to track and assess the impact of the CWB's tendering practices as well as the accompanying changes in the commercial relations existing between the various stakeholders within the grain industry.

Highlights – 2008-09 Crop Year

Tendering

- *CWB's tendering commitment held to a maximum of 20% for sixth consecutive year.*
- *266 tender calls were issued by the CWB during the 2008-09 crop year.*
  - *Called for the movement of 3.4 million tonnes to export positions.*
    - *Increased of 80.6% from the 1.9 million tonnes sought a year earlier.*
- *822 bids received; offered an aggregate 5.6 million tonnes.*
  - *Modest reduction in bidding activity.*
    - *Reflects comparative abundance of high-quality grain.*
- *316 contracts concluded for the movement of 2.2 million tonnes.*
  - *Increase of 18.2% from the 2007-08 crop year.*
  - *CWB directed more grain to west coast ports.*
    - *Prince Rupert's share increased to 42.6% from 38.8%.*
    - *Vancouver's share increased to 38.9% from 35.0%.*
    - *Thunder Bay's share decreased to 18.5% from 26.2%.*
    - *Churchill received no tendered grain for a fourth consecutive year.*
  - *Twelve contracts for the movement of 284,900 tonnes of malting barley.*
  - *Represented 14.4% of CWB volume moved to ports in western Canada.*
    - *Well below established 20% maximum commitment.*
- *Tenders for 42.3% of the tonnage called either partially, or not at all, filled.*
  - *Significant increase from previous year's 11.0%.*
- *Proportion moving in multiple car blocks increased marginally to 91.0%.*
  - *Proportion in blocks of 50 or more cars decreased to 61.9% from 66.7%.*
- *Estimated $34.5 million in savings from grain company tendering, freight and terminal rebates, and financial penalties for non-performance.*
  - *Increased 12.7% from $30.6 million a year earlier.*

Advance Car Awards

- *1.9 million tonnes of grain moved under the CWB's advance car awards program.*
  - *Represented 12.1% of CWB volume moved to ports in western Canada.*
    - *Fell well short of the 20% targeted by the CWB.*
- *Grain moved under the CWB's advance car awards program largely moved in tandem with that of tendered grain.*
  - *Consisted of wheat and durum only.*
  - *95.6% sourced from high-throughput elevators.*
- *Usage of smaller car blocks more prevalent under advance car awards program.*
  - *Stems from railcar allocation process and number of less-than-50-railcar shipments made by the non-major grain companies.*
  - *Supplements larger tendered grain movements.*
- *26.5% of all CWB movements in western Canada moved under its tendered and advance-car-awards programs.*
  - *Fell well short of the 40% committed to by the CWB.*

Other

- *CTA rules on level-of-service complaints brought against CN by grain shippers.*
  - *Alleged discriminatory car allocation practices inherent in advance products.*
  - *CTA decided in favour of four of the six applicants.*
    - *Established performance-based benchmarks for CN service.*
- *Kernel Visual Distinguishability (KVD) removed for 2008-09 crop year.*
  - *Replaced with a system of farmer-based declarations.*
- *Financial turmoil had a significant impact on commodity prices and ocean freight rates.*
  - *Baltic Dry Index fell to 700 before rebounding to 3400 by year's end.*
- *Railways' appeal of the one-time adjustment to its revenue cap comes to a close.*
  - *Railways lose their challenge against the CTA's decision on a $72.2-million adjustment to their revenues in the 2007-08 crop year.*
  - *Supreme Court of Canada dismissed the railways' application for leave to appeal the Federal Court of Appeal's ruling in April 2009.*

Indicator Series 2 – Commercial Relations

Table	Indicator Description	Notes	BASE 1999-00	CURRRENT REPORTING PERIOD (1) 2007-08	2008-09	% VAR	
	Tendering Program [Subseries 2A]						
2A-1	Tenders Called (000 tonnes) – Grain		n/a	1,891.2	3,416.2	80.6%	▲
2A-2	Tenders Called (000 tonnes) – Grade						
2A-3	Tender Bids (000 tonnes) – Grain		n/a	4,396.7	5,622.1	27.9%	▲
2A-4	Tender Bids (000 tonnes) – Grade						
2A-5	Total CWB Movements (000 tonnes)	(2)	n/a	13,332.3	15,612.8	17.1%	▲
2A-5	Tendered Movements (%) – Proportion of Total CWB Movements	(2)	n/a	14.3%	14.4%	0.7%	–
2A-5	Tendered Movements (000 tonnes) – Grain	(2)	n/a	1,900.0	2,246.6	18.2%	▲
2A-6	Tendered Movements (000 tonnes) – Grade	(2)					
2A-7	Unfilled Tender Volumes (000 tonnes)		n/a	207.9	1,445.3	595.1%	▲
2A-8	Tendered Movements (000 tonnes) – Not Awarded to Lowest Bidder		n/a	18.7	4.9	-73.6%	▼
2A-9	Tendered Movements (000 tonnes) – FOB		n/a	65.1	284.9	337.8%	▲
2A-9	Tendered Movements (000 tonnes) – In-Store		n/a	1,835.0	1,961.7	6.9%	▲
2A-10	Distribution of Tendered Movements – Port	(3)					
2A-11	Distribution of Tendered Movements – Railway	(3)					
2A-12	Distribution of Tendered Movements – Multiple-Car Blocks	(3)					
2A-13	Distribution of Tendered Movements – Penalties	(3)					
2A-14	Distribution of Tendered Movements – Province / Elevator Class	(3)					
2A-15	Distribution of Tendered Movements – Month	(3)					
2A-16	Distribution of Tender Delivery Points (number) – Contracted Cars	(3)					
2A-17	Average Tendered Multiple-Car Block Size (carloads) – Port		n/a	57.5	59.7	3.8%	▲
2A-18	Railway Car Cycle (days) – Tendered Grain		n/a	13.9	11.8	-15.1%	▼
2A-18	Railway Car Cycle (days) – Non-Tendered Grain		n/a	15.2	13.0	-14.5%	▼
2A-19	Maximum Accepted Tender Bid ($ per tonne) – Wheat		n/a	-$23.78	-$23.01	-3.2%	▼
2A-19	Maximum Accepted Tender Bid ($ per tonne) – Durum		n/a	-$10.52	-$14.95	42.1%	▲
2A-20	Market Share (%) – CWB Grains – Major Grain Companies		n/a	74.3%	72.9%	-1.9%	▼
2A-20	Market Share (%) – CWB Grains – Non-Major Grain Companies		n/a	25.7%	27.1%	5.4%	▲
	Advance Car Awards Program [Subseries 2B]						
2B-1	Advance Award Movements (%) – Proportion of Total CWB Movements		n/a	13.7%	12.1%	-11.7%	▼
2B-1	Advance Award Movements (000 tonnes) – Grain		n/a	1,831.0	1,896.5	3.6%	▲
2B-2	Distribution of Advance Award Movements – Port	(4)					
2B-3	Distribution of Advance Award Movements – Railway	(4)					
2B-4	Distribution of Advance Award Movements – Province / Elevator Class	(4)					
2B-5	Distribution of Advance Award Movements – Month	(4)					
2B-6	Railway Car Cycle (days) – Advance Award Grain		n/a	14.4	12.2	-15.3%	▼
2B-7	Distribution of Advance Award Movements – Multiple-Car Blocks	(4)					
2B-8	Average Advance Award Multiple-Car Block Size (carloads) – Port		n/a	52.0	52.5	1.0%	▲

(1) – In order to provide for more direct comparisons, the values for the 1999-2000 through 2008-09 crop years are "as at" or cumulative to 31 July unless otherwise indicated.
(2) – Includes tendered malting barley volumes.
(3) – Indicators 2A-10 through 2A-16 examine tendered movements along a series of different dimensions. This examination is intended to provide greater insight into the movements themselves, and cannot be depicted within the summary framework presented here. The reader is encouraged to consult the detailed data table found in Appendix 4 as required.
(4) – With the exception of indicator 2B-6, indicators 2B-2 through 2B-7 examine advance car award movements along a series of different dimensions. This examination is intended to provide greater insight into the movements themselves, and cannot be depicted within the summary framework presented here. The reader is encouraged to consult the detailed data table found in Appendix 5 as required.

2.1 Tendering Program *[Measurement Subseries 2A]*

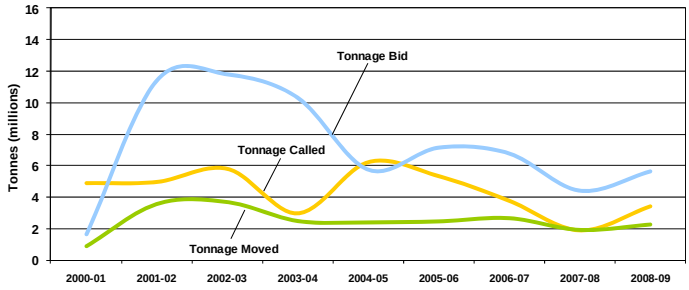
The 2008-09 crop year was the ninth for the Canadian Wheat Board's (CWB) tendering program. More significantly, it was the sixth year in which the CWB targeted to move a fixed 40% of its overall grain movements to the four ports in western Canada using a combination of tendering and advance car awards.[53] Under the terms of this arrangement, about half of this volume – representing a maximum of 20% of its overall grain movements – was to be tendered.

Attention should be drawn to the fact that the comparative quantity and quality of the grain available for movement in the 2008-09 crop year posed few problems for the CWB's tendering program. As such, tendering behaviour proved to be consistent with the practices witnessed in the two crop years that preceded it.[54]

Tender Calls

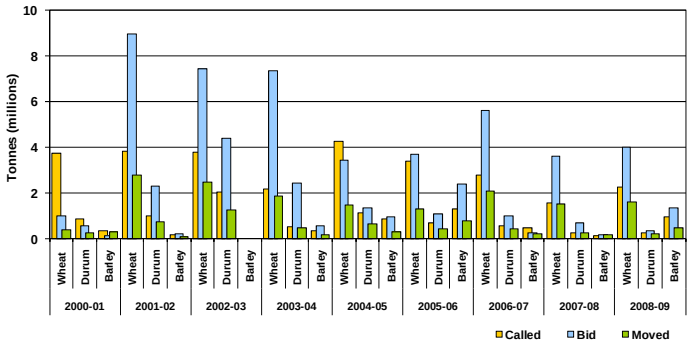
During the 2008-09 crop year, the CWB issued a total of 266 tenders calling for the shipment of approximately 3.4 million tonnes of grain. This represented an increase of 80.6% over the 1.9 million tonnes that had been sought a year earlier. The volume of grain put out for tender proved to be consistent with the organization's 20% target.

Figure 20: Total Tonnage Called, Bid and Moved Through Tendering



As in past years, the majority of the grain put out to tender, 64.9%, called for the movement of wheat. For the 2008-09 crop year this entailed a potential movement of 2.2 million tonnes, which stood 44.2% more than the previous crop year's 1.5 million tonnes. Barley tenders ranked second in terms of overall size, with calls for over 0.9 million tonnes having been issued. This denoted 27.5% of the overall total compared to just 6.5% the year before. Durum calls, which fell to a 7.6% share from its 12.2% share a year earlier, accounted for the remaining 0.3 million tonnes.

Figure 21: Tonnage Called, Bid and Moved Through Tendering – Grain



There was also a noticeable shift in the amount of grain the CWB sought to move through the west coast ports. Of the total volume called, 79.7% was intended for export through the ports of Vancouver and Prince Rupert. Although this was somewhat below the levels observed in the 2005-06 and 2006-07 crop years, it proved greater than the 73.3% share moved through these ports a year earlier.[55] There was also another noticeable shift in the allocation between these two ports. Prince Rupert's share rose to a record 52.8% from the previous crop year's 41.3%, while Vancouver's declined to 26.9% from 32.0%. The share accorded to the port of Thunder Bay showed a

[53] The CWB's tendering program was significantly modified for the 2003-04 crop year following consultations with its 26 agents. The 2002-03 crop year was the last in which the CWB had been committed to tender a *minimum* of 50% of its overall volume.

[54] The 2004-05 and 2005-06 crop years were characterized by comparatively tight supplies of high-quality grain. As such, the grain companies were able to assess significant premiums on the movement of high-quality tendered grain. This was not the case in either the 2006-07 or 2007-08 crop year, when high-quality grains were more readily available.

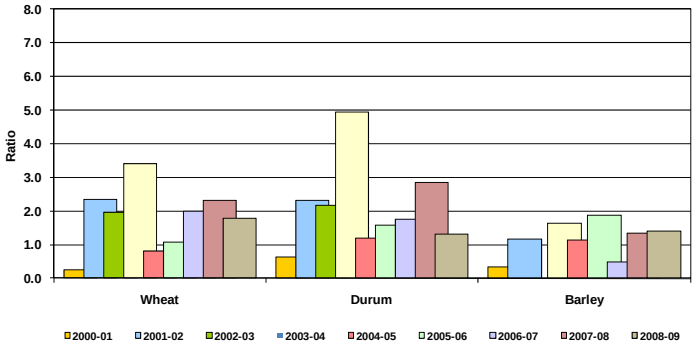
[55] The share accorded west coast ports in the 2005-06 and 2006-07 crop years were 84.6% and 81.8% respectively.

marked reduction in the face of Prince Rupert's increased allocation, falling to 20.3% from 26.7% a year earlier. For the fourth consecutive year, no calls were issued in favour of Churchill. [See Tables 2A-1 and 2A-2 in Appendix 5]

Tender Bids

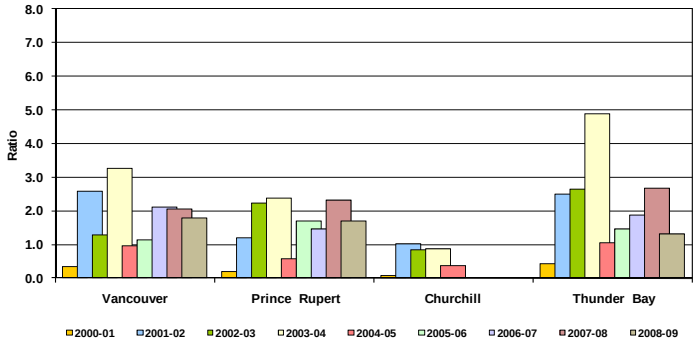
The CWB's tender calls were met by 822 bids offering to move 5.6 million tonnes of grain, more than one-and-a-half times the amount sought. The majority of these bids, 70.6%, responded to calls for the movement of wheat. Another 23.3% responded to those issued for barley, while the remaining 6.1% answered those for durum. On the whole, bidding in the 2008-09 crop year appeared more muted than in the one that preceded it, particularly in as much as it concerned durum. Only barley showed a marginal increase in bidding activity.

Figure 22: Ratio of Tonnage Bid to Tonnage Called – Grain



When examined with respect to the port specified in the tender call, 54.7% of the bids were directed to Prince Rupert, 29.2% to Vancouver, and 16.1% to Thunder Bay. These too proved reflective of the tonnage called, but also showed a general weakening in the intensity of the bidding. [See Tables 2A-3 and 2A-4 in Appendix 5.]

Figure 23: Ratio of Tonnage Bid to Tonnage Called – Port



The comparative change in the intensity of this bidding can best be gauged through an examination of the tonnage-bid-to-tonnage-called ratio, where higher values denote a much stronger response to a tender call than lower ones. As already indicated, these ratios moved generally lower in the 2008-09 crop year. While the bids put forward for durum to Thunder Bay garnered comparatively weaker responses than others, the overall pattern again proved largely non-discriminatory.

Contracts Awarded

A total of 316 contracts were subsequently signed for the movement of 2.2 million tonnes of grain. This represented 14.4% of the tonnage shipped by the CWB to western Canadian ports during the 2008-09 crop year, and fell well short of its 20% target.[56] [See Tables 2A-5 and 2A-6 in Appendix 5.]

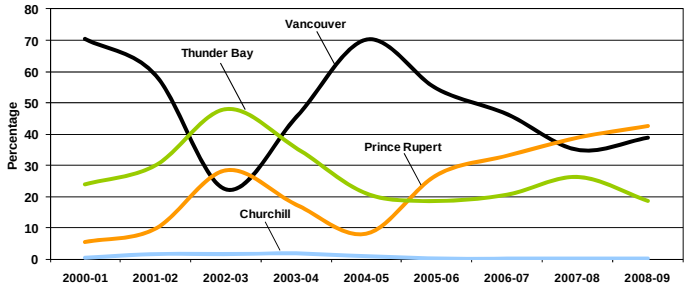
Of the 2.2 million tonnes moved, 42.6% was shipped to Prince Rupert, 38.9% to Vancouver, and 18.5% to Thunder Bay. Owing to the increased proportion directed to Prince Rupert these rankings differ significantly from those observed in the 2004-05 crop year. In addition to showing a diminished role for Vancouver and Churchill in the movement of tendered grain, these results mark the fourth instance where Thunder Bay failed

[56] Since the tendering of malting barley predates adoption of the Memorandum of Understanding that gave rise to the CWB's current tendering program, malting barley volumes are normally considered independent of the grain volumes tendered under it, but nevertheless are included in the calculation of the total tendered grain volumes moved by the CWB.

to place at least second in terms of the largest export gateways for tendered grain in the program's nine-year history.[57]

Although broader market forces have also had a hand in shaping these results, the most notable influence has come from the rate reductions introduced by CN on grain moving to Prince Rupert. Supported by the better allocation of cars within this corridor, the CWB simply could not ignore the economic advantages inherent in trying to direct a larger proportion of its tendered grain through this export gateway.

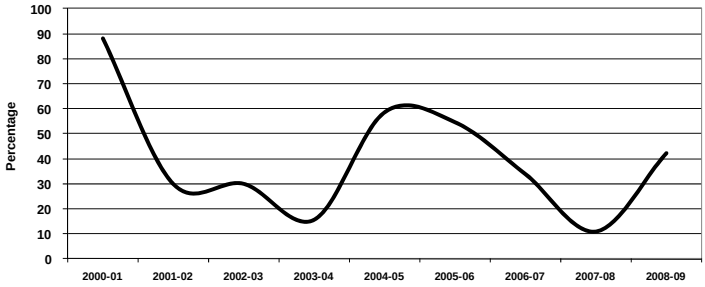
Figure 24: Tendered Grain – Destination Port



Tendered Volumes Not Filled

Although the CWB issued calls for the movement of about 3.4 million tonnes of tendered grain, the calls for some 1.4 million tonnes went unfilled. This constituted 42.3% of the overall volume called, and marked a sharp increase from the 11.0% recorded a year earlier. To a large degree, this increase reflected the general weakening in bidding activity. Given the prevailing demand for grain, particularly in the latter half of the crop year, the grain companies appeared less inclined to bid as aggressively as before. The proportion going unfilled increased fairly progressively throughout the course of the year, rising from a low of 19.2% in the second quarter to a high of 75.2% in the fourth.

Figure 25: Composition of Tendered Volumes Not Filled



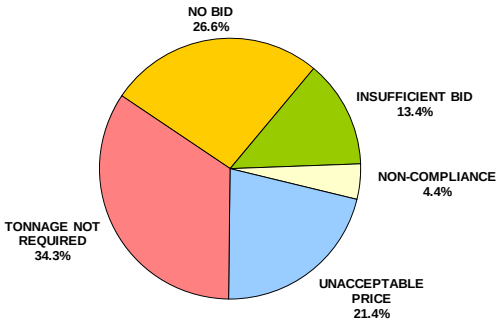
Of the 1.4 million tonnes that went unfilled, the largest amount, 495,200 tonnes, or 34.3%, were attributable to tonnage that ultimately was not required. It must be noted here that all of this was associated with the tendering of feed barley. As opposed to the CWB's normal practice of issuing a tender call only when it has a specific sales contract to fill, the tender calls issued in favour of feed barley are more speculative. As such, the CWB is frequently unable to sell a significant portion of the barley it can gather, ultimately rendering it surplus to its needs. This marked the first time since the 2005-06 crop year that such a surplus was created. If this tonnage is excluded, the total proportion going unfilled falls to 27.8% from 42.3%.

In addition to the aforementioned, another 384,700 tonnes failed to secure any bids whatsoever. This constituted 26.6% of the total tenders issued, and marked a sharp increase over the 4.7% that went unanswered a year earlier. For a further 309,100 tonnes, or 21.4%, the bid price was unacceptable. Another 193,000 tonnes, or 13.4%, went unfilled because an insufficient quantity was bid. Finally, for some 63,300 tonnes, or 4.4%, the bidders failed to comply with the specifications set out in the tender. [See Table 2A-7 in Appendix 5.]

[57] Notwithstanding the 2002-03 crop year, where Thunder Bay became the GHTS's largest handler of tendered grain as a result of a labour dispute that impeded the movement of grain through Vancouver, tendered grain shipments through the port of Thunder Bay had always ranked second to those of Vancouver until the 2005-06 crop year. The 2008-09 crop year constituted the fourth consecutive one in which the volume of tendered grain shipped through the port of Thunder Bay ranked behind that of both Vancouver and Prince Rupert.

Of the 266 tender calls issued, only one resulted in a contract being awarded to a company that did not put forward the lowest-priced bid. This involved an aggregate volume of 4,900 tonnes, about a quarter of what had been awarded the year before.[58] In such cases, the lowest-priced bid often failed to secure an award because it included conditions that could not be accommodated.[59] [See Table 2A-8 in Appendix 5.]

Figure 26: Composition of Tendered Volumes Not Filled



Malting Barley

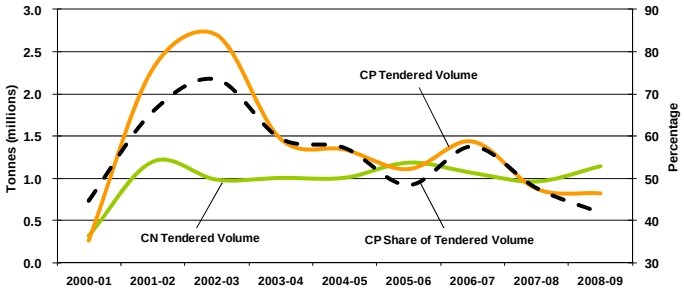
During the 2008-09 crop year, 10 tenders were issued by the CWB for the movement of malting barley. In response, a total of 59 bids were received. This resulted in the awarding of 12 contracts for the shipment of 284,900 tonnes to Vancouver, an amount that stood well above the 65,100 tonnes handled a year earlier. As has been the case throughout the GMP, malting barley constituted the sole grain to have been sold Free on Board (FOB). All other tendered grain shipments were sold on an "in-store" basis. Tendered malting barley shipments in the 2008-09 crop year represented 32.6% of the overall tonnage moved under tender to the port of Vancouver, and 12.7% of that directed to the four ports in western Canada. [See Table 2A-9 in Appendix 5.]

Originating Carrier

CN secured 58.2% of the volume that moved under tender in the 2008-09 crop year. In addition to building on the 52.4% share garnered a year earlier, it also marked the first instance where CN carried the majority of the CWB's tendered grain in two consecutive crop years.[60] Much of this gain was attributable to an increase in the amount of tendered grain moving to the west coast ports, and to CN's exclusive handling of the tendered grain destined to Prince Rupert. [See Table 2A-11 in Appendix 5.]

It should be noted that CP still holds a comparatively strong competitive position in the movement of tendered grain. Much of this relates to crop production, and what has historically been the better availability of higher-quality grains in CP's service area. But CP also provides service to a larger number of high-throughput facilities than does its rival.

Figure 27: Tendered Movements – Originated Carrier



Although CN has increased the number of high-throughput elevators it services to 82 in recent years, these represent just 44.3% of the 185 Class C and D facilities situated across western Canada. In

[58] In the 2007-08 crop year, 18,700 tonnes were awarded to bidders who did not put forward the lowest bids.

[59] Mention should be made of the fact that if these bids were in accordance with the bidder's agreement with the CWB, they were not automatically rejected. The CWB, the Western Grain Elevator Association, and the Inland Terminal Association of Canada entered into a tri-party agreement that laid out the criteria to be used by the CWB in awarding tenders: the lowest price (greatest savings to farmers); the consolidation of stocks at three terminals or less; and where the full amount of the tender award cannot be determined by the first two criteria, the past performance of each grain company with respect to the execution of tender movements is to be used in determining the successful bid.

[60] In addition to capturing back-to-back majority shares in the 2007-08 and 2008-09 crop years, CN also handled 55.4% of the tendered grain shipped in the 2000-01 crop year, and 51.7% of that moved in the 2005-06 crop year.

comparison, CP has access to 97 such facilities, slightly more than half, 52.4%, of the GHTS total.[61] With this broader high-throughput base, CP can reasonably be expected to win a slightly greater proportion of the volume shipped from these facilities, be it tendered or non-tendered grain. But it would appear that, in spite of these strengths, the reduction of freight rates in the Prince Rupert corridor has helped CN to win over a larger share of the tendered grain traffic.

Multiple-Car Blocks

Tendered grain moves largely under the incentive discount programs offered by both major railways. In fact, since the beginning of the CWB's tendering program, the proportion moving in blocks of 25 or more railcars has never fallen below 85.9%.[62] This again proved to be the case in the 2008-09 crop year, when 91.0% of the tendered grain volume moved in such blocks, up moderately from the 88.8% so moving a year earlier.

In addition to a further reduction in the proportion of grain moving in blocks of less than 25 cars, which fell to 9.0% compared to 11.2% the year before, there were some other noteworthy shifts. Chief among these was a sharp increase in the proportion of tendered shipments moving in blocks of 25-49 cars, which rose to 29.1% from 22.1% a year earlier. These gains were reflected in diminished proportions for larger-block movements. Shipments in blocks of 50-99 cars, took a 50.0% share compared to a 56.7% twelve months before. Movements in blocks of 100 or more cars showed a modest increase, rising to an 11.9% from 10.0% a year earlier. [See Table 2A-12 in Appendix 5.]

These measurements underscore the fact that successful bidders generally attempt to ship tendered grain in the largest car blocks possible in order to realize the full financial benefit available from doing so.

Tendered Origins

With almost 0.9 million tonnes of grain shipped, Saskatchewan reasserted its position as the largest originating province for tendered grain in western Canada, taking a 43.8% share compared to 37.5% the year before. Moreover, the increase in volume served to displace Alberta, which had ranked as the largest originator of tendered grain for two years in a row.

Following with almost 0.8 million tonnes was Alberta, which originated 40.4% of the total tendered volume. This proved to be a modest reduction from the 44.7% share secured a year earlier. In the face of the gains made by Saskatchewan and Alberta, the share accorded to Manitoba's 0.3 million tonnes fell marginally, to 15.7% from 16.9%. The 2007-08 crop year also saw the amount of tendered grain shipped from British Columbia fall to a mere 3,200 tonnes from 16,200 tonnes the previous year.

Figure 28: Tendered Movements – Multiple Car Blocks

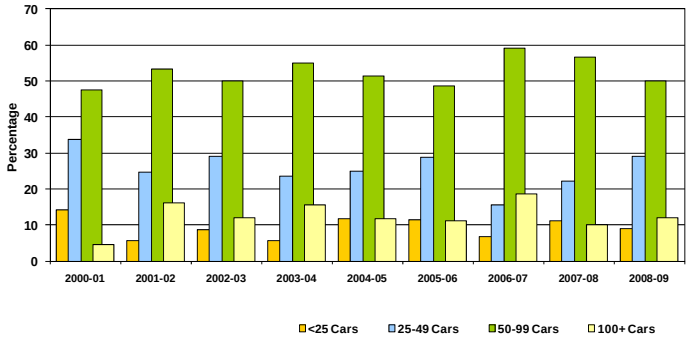
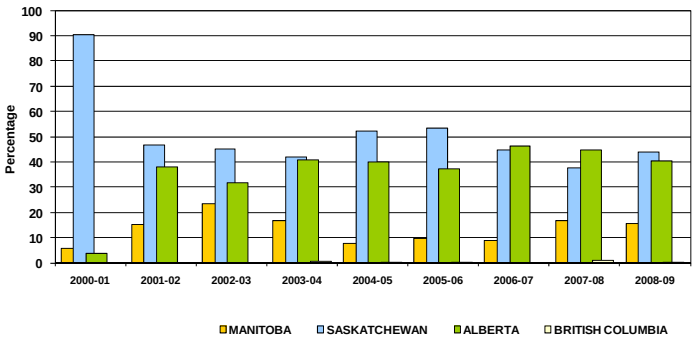


Figure 29: Tendered Grain – Provincial Origin

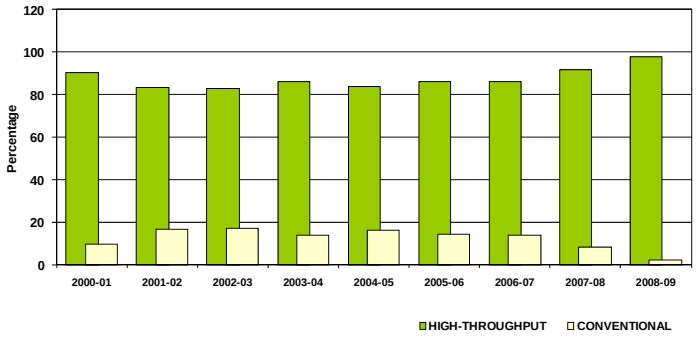


[61] Shortline railways provide service to the remaining six high-throughput facilities.

[62] This proportion was actually recorded in the 2000-01 crop year, the first for the CWB's tendering program.

As mentioned previously, high-throughput elevators have proven to be the principal facilities employed in moving tendered grain. In fact, in the initial year of the tendering program, these facilities originated 90.3% of the volume. Even when confronted with two consecutive years of drought, this proportion fell to a low of only 83.0%[63] In more recent years, this proportion has moved steadily higher. In fact, the 2008-09 crop year saw an even further gain, with a record 97.7% of the tendered volume having originated at such facilities, up from 91.8% the year previous.

Figure 30: Tendered Grain – Elevator Class

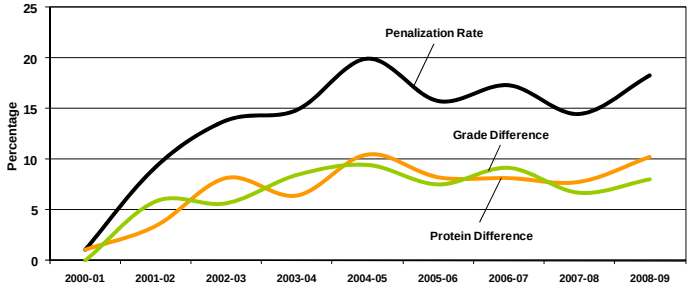


A comparison of the provincial values reveals similar gains. For Manitoba, such originations rose to 99.7% from 90.8% a year earlier. In the case of Saskatchewan, the proportion originating at high-throughput facilities increased to 98.1% from 92.0%. Alberta also posted an increase, claiming 97.0% of its volume originated at such facilities versus 93.9% the year before. In contrast, all of the tendered grain shipped from British Columbia originated at conventional elevators.[64] [See Table 2A-14 in Appendix 5.]

Applied Penalties

Since the commencement of the CWB's tendering program in the 2000-01 crop year, the GMP has tracked the number of cars assessed with financial penalties for having failed to meet the grade or protein level specified in the tender. A total of 3,126 carloads were assessed with such penalties in the 2007-08 crop year.[65] As a proportion, this represented a penalization rate of 14.5%.

Figure 31: Tendered Grain – Penalized Shipments



This penalization rate can be seen to have risen substantially in the first five years of the tendering program, increasing from a mere 1.1% of the cars unloaded to a high of 19.9% in the 2004-05 crop year.[66] Since then, the penalization rate has moved marginally lower. The overall rate has two elements: the portion attributable to shipments failing to meet the specified grade; and that failing to comply with the required protein content. These two failure rates have tended to move in tandem, with no one element having proved to be indicative of a more dominant problem.

Owing to ongoing changes in the CWB's various information systems, data pertaining to the penalties applied in the 2008-09 crop year was largely restricted to movements made in the first quarter. This limited data showed that for the first three months of the crop year the penalization rate increased to 18.3%. In concert with this were increases in the rates for failing to meet the specified grade, which increased to 10.3% from 7.8% for

[63] The low cited here was recorded in the 2002-03 crop year, the third for the CWB's tendering program.

[64] There are no high-throughput elevators situated in British Columbia.

[65] Shipments falling below the specified grade or protein level are assessed a penalty of $200 per railcar. Those exceeding the specifications are penalized an amount equal to the price differential commanded by the received grade or protein, and that of the initial payment for the contracted grain.

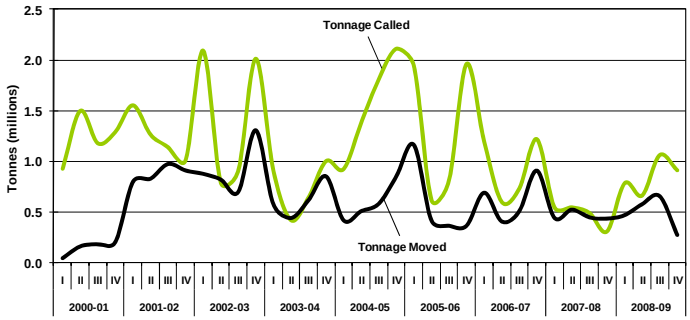
[66] The penalization rate of 1.1% cited for the 2000-01 crop year is not deemed comparable to that of later crop years given the limited volume of grain actually moved under the CWB's tendering program.

the previous crop year as a whole, and for not meeting the protein content specified, which rose to 8.0% from 6.7%. Measures relating to the penalties applied against such movements will be presented when that data once again becomes available. [See Table 2A-13 in Appendix 5.]

Distribution

For the 2008-09 crop year, the CWB issued tenders at an average rate of 284,700 tonnes per month. However, the actual amounts varied from a low of 74,800 tonnes to a high of 444,200 tonnes. The quarterly distribution of these values showed a progressive increase in the amount of grain put out to tender, which contrasted with the wider variability of earlier crop years.

Figure 32: Quarterly Distribution of Tendered Grain

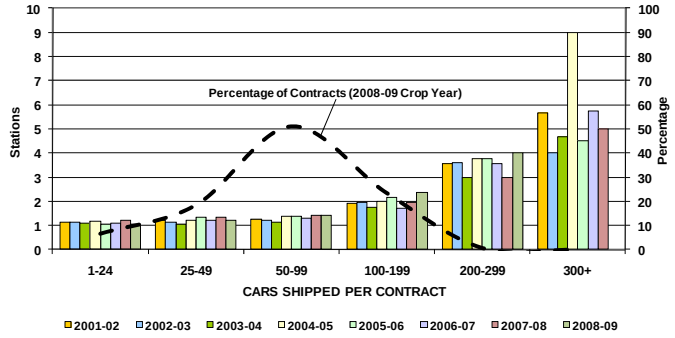


The monthly volume of grain actually shipped under the tendering program showed a somewhat similar distribution pattern. Averaging 163,500 tonnes per month, these shipments ranged from a low of 26,300 tonnes to a high of 263,800 tonnes. The quarterly distribution of the tonnage shipped showed a much weaker correlation with the tonnage called than in recent years. The forces driving this appear to be twofold. First is the structural lag that sees much of the tendered volume actually moving some four to six weeks after the call was issued by the CWB, and the volume that went unfilled. Much of the weakening in this correlation appears to be related to the volume that went unfilled, which saw the proportion of tender calls increase to 42.3% from 11.0% a year earlier. [See Table 2A-15 in Appendix 5.]

Delivery Points per Tender Contract

Tendered grain shipments can originate at one or more delivery points. Of the 316 contracts signed for the movement of tendered grain in the 2008-09 crop year, 63.3% involved grain drawn from a single delivery point. This was unchanged from the value observed a year earlier. The average number of delivery points observed for shipments made in blocks of less than 25 cars, 25-49 cars, and 50-99 cars, showed only minor year-over-year changes, averaging about 1.2 stations per contract overall. Moreover, this average remains consistent with the 1.2-station average first observed in the 2001-02 crop year. [See Table 2A-16 in Appendix 5.]

Figure 33: Tendered Grain – Delivery Points per Contract



Contracts calling for the shipment of 100 or more cars typically drew grain from a greater number of delivery points. This relates simply to the larger amount of grain involved, and the fact that it often had to be drawn from a larger geographic area. In the case of shipments comprised of 100 to 199 cars, grain was drawn from an average of 2.4 delivery points; and 4.0 stations for shipments of between 200 and 299 cars.[67] Although the record shows more significant year-over-year change in these averages, they also remain largely consistent with those first observed in the 2001-02 crop year.

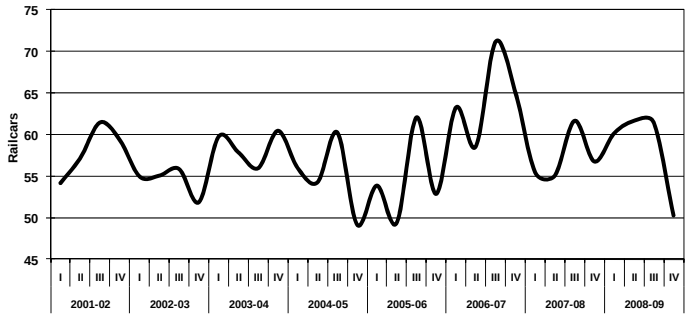
[67] No contracts were issued in the 2008-09 crop year for shipments in excess of 300 cars.

Of all contracts signed in the 2008-09 crop year, 76.0% involved movements of less than 100 carloads of grain. Although this was somewhat greater than the 67.9% observed a year earlier, the result still proved to be consistent with the longer-term average of 72.9%. Even so, the greater part of this, 51.0%, moved in lots of 50-99 cars. This proved to be virtually unchanged from the 51.3% recorded a year earlier. On the whole, these observations reinforce earlier ones to the effect that grain companies have generally attempted to ship tendered grain in larger car block sizes whenever possible.

Multiple-Car Block Size

As mentioned previously, 91.0% of the tendered grain shipped in the 2008-09 crop year moved in blocks of 25 or more cars. In general, these multiple-car shipments averaged 59.7 cars in size, a value clearly above the 50-car threshold used to define movements from high-throughput elevators. This denoted a 3.8% increase over the 57.5-car average of the previous crop year. The primary impetus for this came from increases in the Vancouver and Thunder Bay corridors. [See Table 2A-17 in Appendix 5.]

Figure 34: Tendered Grain – Weighted Average Car Block



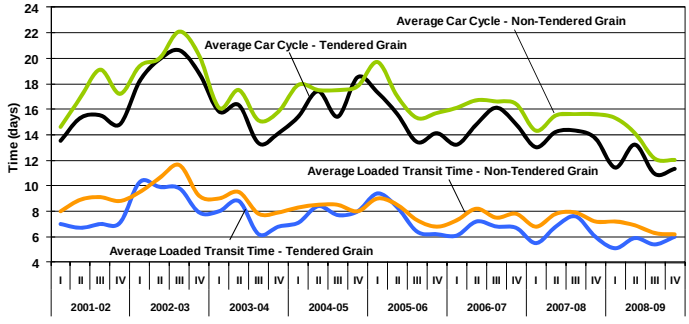
In the case of Vancouver, the 2008-09 crop year's average rose by 5.4%, increasing to 56.7 cars compared to 53.8 cars a year earlier. Movements in the Thunder Bay corridor produced a more pronounced increase, climbing by 13.0%, to an average of 62.7 cars from 55.5 cars. Running counter to these gains was the average exhibited in the Prince Rupert corridor, which fell by 5.3%, to 58.7 cars from 62.0 cars the year before. Owing to a fourth consecutive year without any tendered grain shipments to Churchill, the average in this corridor was again zero.[68]

On the whole, the quarterly averages have shown much greater variability. These values presented an undulating pattern very much in keeping with that portrayed in previous years, although a sharp reduction in the fourth quarter's average saw it drop to a near-record low of 50.3 cars.

Car Cycles

The average car cycle for tendered grain shipments fell by 15.1% in the 2008-09 crop year, to 11.8 days from 13.9 days a year earlier. This denoted the fourth consecutive reduction in the annualized average, which resulted in the setting of yet another record low during the GMP. It is also worth noting that while this improvement was consistent with that posted by the general car cycle, the average associated with tendered grain shipments proved to be considerably lower than the overall 13.4-day average posted for all hopper car movements.[69] [See Table 2A-18 in Appendix 5.]

Figure 35: Car Cycles – Tendered and Non-Tendered Grain



[68] Tendered grain shipments destined to Churchill in the 2004-05 crop year produced the largest annualized average car block for any corridor during the GMP, a record 89.3 cars.

[69] General car cycles are discussed more fully in Section 3.3.

With 97.7% of the tendered grain volume originating at high-throughput elevators, the car cycle associated with these movements was noticeably lower than those of non-tendered CWB grain shipments. In fact, the average car cycle for tendered grain was 9.2% less than that of non-tendered CWB grain in the 2008-09 crop year, 11.8 days versus 13.0 days respectively.

By their very nature, high-throughput elevators aim to construct grain shipments in the largest car blocks possible. In general terms, this allows for faster railway movement since the grain is typically gathered from one point rather than a multiple of smaller, conventional elevators.[70] Over the course of the past eight crop years, the time advantage enjoyed by tendered grain shipments has proven fairly consistent, amounting to an average of 1.2 days, or 7.9%, less than that of the car cycle for non-tendered CWB grain movements. Much of this advantage came from faster loaded transit times, although there was a benefit from faster empty transit times as well.

In the 2008-09 crop year, tendered grain's average loaded transit time amounted to 5.6 days. This represented a 13.8% improvement over the previous crop year's 6.5-day average. When the eight-year record is examined against that of non-tendered CWB grain shipments, the loaded transit time advantage can be seen to have amounted to about 0.8 days, or 9.9%. The benefit derived from the difference between the average empty transit times for tendered and non-tendered CWB grain proved somewhat less, and amounted to about 0.5 days, or 6.0%.

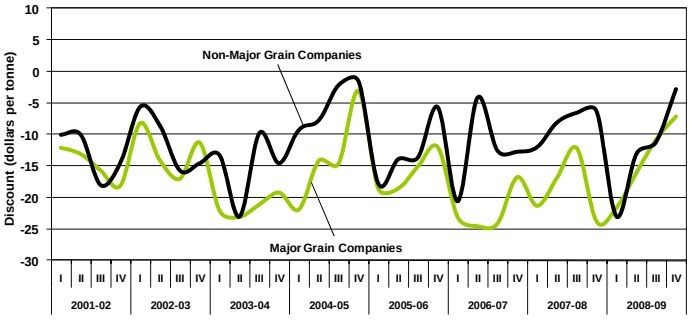
While the statistics presented here continue to indicate that tendered grain movements have a structural advantage over non-tendered ones, there is still an overarching commonality to the railway service they both receive. It must be remembered that railway operations have the most direct bearing on car cycles, and that the gains made during the 2008-09 crop year appear to have been derived from the provision of generally better railway service.

Accepted Bids

As the CWB's tendering program was intended to stimulate competition, the Monitor uses a series of indicators to assess market dominance. Since a number of stakeholders raised concern over the potential ability of major grain companies to outbid their smaller competitors, the first of these involves measuring the bids advanced by both the major, and non-major, grain companies.[71]

Although the actual winning bids remain confidential, the CWB discloses the range of bids received for each tender issued. As "price takers," it is in the CWB's best interest to accept the most remunerative bid put forward.[72] As a result, the maximum discount offered by grain companies, and generally accepted by the CWB, provides a reasonable basis by which to compare differences in the bidding behaviours of both the major, and non-major, grain companies.

Figure 36: Maximum Discount from Initial Price – Wheat



The maximum discounts put forward by both groups show a significant degree of variation over the course of the past eight crop years, be it on a quarterly or an annual basis. To a large extent, these fluctuations reflected their

[70] A pilot project conducted by the former Saskatchewan Wheat Pool and CN in 2002 showed that back-to-back movements of 100-car shuttle trains from high-throughput elevators could achieve an average car cycle of 6.5 days.

[71] As used here, the term "major grain companies" refers specifically to Viterra Inc., Cargill Limited and Pioneer Grain Company, Limited. These companies effectively constitute the three largest firms sourcing grain within western Canada.

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

response to changing marketplace conditions. However, the maximum discounts offered by the major grain companies typically exceeded those advanced by their smaller competitors, frequently proving to be twice that of the latter. Still, there were numerous instances where the non-major grain companies outbid their larger rivals. [See Table 2A-19 in Appendix 5.]

Of particular interest was the 2004-05 crop year, when tight supplies of high-quality grain dramatically altered the nature of the bidding altogether. The discounts that the CWB had been able to extract from the grain companies up until then began to decline. Notwithstanding this reduction in the discounts offered, what distinguished the 2004-05 crop year from those that preceded it was the fact that the bids advanced by the grain companies quickly began to require that the CWB pay a premium to move tendered grain. Although the 2005-06 crop year brought about similar patterns as a result of yet another poorer-quality crop, the CWB proved more adept at refocusing its tendering program under such circumstances. With limited exception, premiums were dramatically reduced and discounts rebounded substantially.

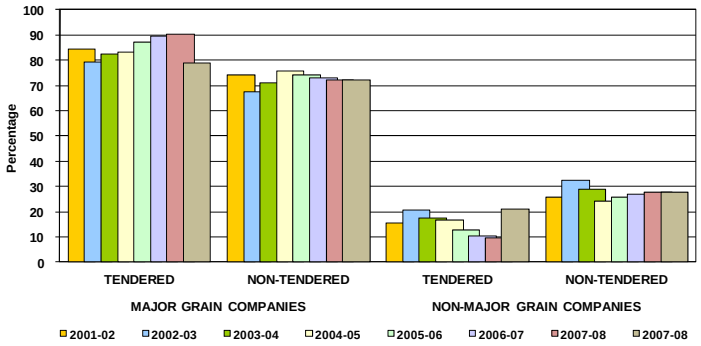
An improvement in market conditions in the 2006-07 crop year brought about a restoration of the bidding patterns that had been observed in the first three years of the CWB's tendering program. Premiums were effectively eliminated, and the maximum discounts bid moved noticeably higher. The 2007-08 crop year saw the monetary value of these bids retreat before later rebounding.

A more sustained reduction was in evidence during the 2008-09 crop year. Although the discounts advanced for wheat in the first quarter fell back marginally to $23.01 per tonne, they began to move substantially lower in the second quarter, eventually dropping to a low of $7.11 per tonne by the end of the crop year. In fact, the fourth quarter produced some of the lowest bids witnessed in five years.

Despite these market fluctuations, the major grain companies can still be seen to have maintained their position as the industry's price leaders. Whether offering deeper discounts, or demanding higher premiums, these actions continue to suggest that the major grain companies have adopted a more aggressive approach to tendering than have the non-majors. Moreover, what ultimately appears to distinguish the two groups is the non-majors' proclivity to respond more selectively to any of the tender calls issued by the CWB, while the major grain companies appear less discriminatory.

Market Share

Figure 37: Market Share – CWB Grains



Unquestionably, the best indicator of market dominance is the relative share held by both the major and non-major grain companies. Interestingly, the share secured by the larger grain companies in the movement of CWB grain, be it tendered or non-tendered, while having largely strengthened over the course of the past eight crop years, there has been little material change. In the 2001-02 crop year, the major grain companies controlled 84.6% of the tendered volume. And although the major grain companies' share rose fairly steadily thereafter, reaching a height of 90.3% in the 2007-08 crop year, it fell off sharply in the 2008-09 crop year. Their share actually fell to its lowest level during the GMP, accounting for 79.1% of the overall tendered grain movement. Much the same was true of non-tendered CWB grains, with the majors' share having declined to 72.1% from 74.4% during this same period. [See Table 2A-20 in Appendix 5.]

Necessarily, the market shares held by the non-major grain companies showed corresponding increases. Over the course of the past eight crop years, they gained 5.5 percentage points on their share of the tendered grain movement while adding 2.3 percentage points to their share of non-tendered grain movements. These differentials are more significant to the non-majors, but are too limited in scope to be indicative of a meaningful

change in overall business activity. Moreover, they suggest that the major grain companies, despite their apparent competitive advantages, have not been able to easily displace their smaller rivals.[73]
To an extent, this result can partially be explained by the heightened degree of competition that has existed between the grain companies themselves, whether it be in terms of the deeper discounts they put forward in their bids to secure tendered grain movements or in the higher trucking premiums they have been willing to pay producers in order to draw grain into their facilities. Another factor relates to the fact that tendered grain movements are effectively capped at 20% of the CWB's shipments to the four ports. Moreover, with 80% of the CWB's overall volume moving under a general car allocation mechanism, the market position of the smaller grain companies has been partially protected.

Financial Savings

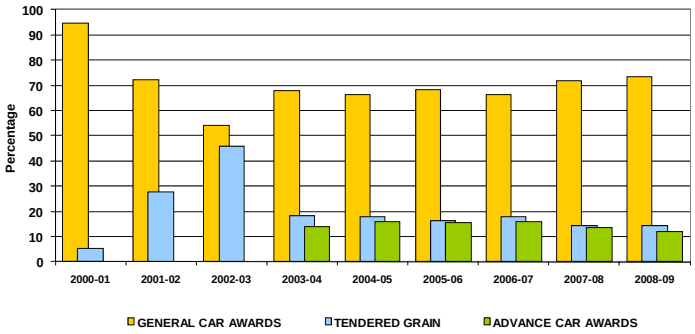
Despite the steady erosion in the discounts put forward in the tender bids of the grain companies, the transportation savings accruing to the CWB – and ultimately passed back to producers through its pool accounts – actually increased in the 2008-09 crop year. To a large extent, this was due to the compensating effects of an 18.2% increase in the amount of grain moved under the tendering program. At the same time, it must be remembered that while these discounts figure prominently in the calculation of the CWB's overall transportation savings, they are not the sole offsets. Freight and terminal rebates, as well as any financial penalties for non-performance, also factor into this calculation. For the 2008-09 crop year, the CWB estimates that the savings generated from these various sources grew by 12.7%, rising to $34.5 million from $30.6 million a year earlier.

2.2 Advance Car Awards Program *[Measurement Subseries 2B]*

Despite a 17.1% increase in total CWB grain shipments, the total tonnage moved under the advance car awards program rose by only 3.6% in the 2008-09 crop year, to 1.9 million tonnes from 1.8 million tonnes a year earlier. This represented 12.2% of the total tonnage shipped to western Canadian ports by the CWB, which constituted a of 1.5 percentage loss compared to the 13.7% share these movements garnered a year earlier.

In conjunction with the 2.2 million tonnes that moved under its tendering program, a combined 26.5% of the CWB's total grain shipments moved under these two programs. This fell considerably short of the 40% that had been targeted, as well falling below the 28.0% that had been handled under these two programs a year earlier.[74] Moreover, this marked a second consecutive year of contraction. The combined share of the two programs has fallen to its lowest level since the advance car awards program was inaugurated in the 2003-04 crop year.

Figure 38: CWB Grain Movements – Western Canada



Part of the shortfall was attributable to the comparatively light movement of grain

[73] The competitive advantage referenced here relates more directly to the number of high-throughput elevators operated by the major grain companies. With over 80% of tendered grain shipments moving in multiple-car blocks from high-throughput elevators, the major grain companies are deemed to have more of the strategic assets needed to exploit these efficiencies than do their non-major rivals. In addition, the major grain companies also own the vast majority of the GHTS's terminal elevator assets, which serves to further enhance this advantage.

[74] Advance car awards are administered on the same basis as the CWB's general car awards program, but with an additional two-week lead time, and an early indication of the grains and grades required, in order to provide shippers with increased flexibility in managing their logistics programs.

under the advance car awards program in the first half, which represented just 8.3% of the CWB's total shipments in this six-month period. Although the share in the second half rose to 15.0%, the gain was not enough to compensate for the earlier weakness. This was at odds with the proportion moving under the tendering program, which showed comparative strength through the first nine months of the crop year, before falling off sharply in the fourth quarter.

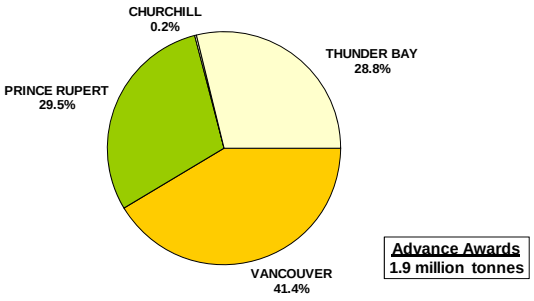
Traffic Composition

In a number of respects, the grain shipped under the advance car awards program paralleled that moved under the tendering program. The vast majority of the 1.9 million tonnes shipped consisted of wheat, some 1.7 million tonnes, or 89.1%. This was complemented by another 0.2 million tonnes, or 10.9%, of durum. No barley was handled under the advance car awards program in the 2008-09 crop year. [See Table 2B-1 in Appendix 5]

The largest portion of the volume that moved under the advance car awards program, 0.8 million tonnes, or 41.4%, was destined to the port of Vancouver. This surpassed the 38.9% share moved through the port, in the movement of tendered grain.

Vancouver was followed in turn by Prince Rupert with 0.6 million tonnes and a 29.5% share; Thunder Bay with 0.5 million tonnes and a 28.8% share; and Churchill with 4,600 tonnes and a 0.2% share. [See Table 2B-2 in Appendix 5.]

Figure 39: Advance Car Awards – Destination Port



Originating Carrier

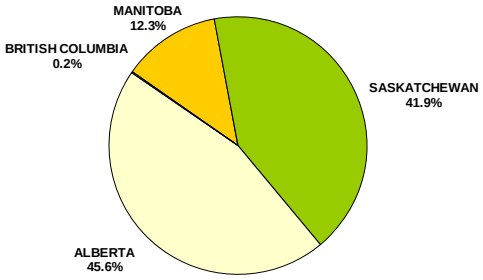
Well over half, 59.8%, of the volume moved under the advance car awards program during the 2008-09 crop year originated at points local to CP. This was less than the 65.6% share that the carrier secured a year earlier, but substantially more the 41.8% obtained as its share of the tendered grain movement. At the same time, CP's share in the movement of this traffic was notably greater than the 50.8% it garnered in the overall movement of western Canadian grain. [See Table 2B-3 in Appendix 5.]

Traffic Origination

In contrast to tendered grain shipments, where the majority of the tonnage sourced was from Saskatchewan, the largest volume moved under the CWB's advance car awards program came from Alberta. Amounting to almost 0.9 million tonnes, Alberta shipments accounted for slightly less than half, 46.5%, of the program's total volume. This proved marginally greater than the 40.4% share garnered by the province in the movement of tendered grain. Shipments from the provinces of Saskatchewan and Manitoba followed, with originations of 0.8 million tonnes and 0.2 million tonnes respectively. A total of 3,000 tonnes was also shipped from British Columbia. [See Table 2B-4 in Appendix 5.]

The traffic shares accorded to these latter provinces under the advance car awards program differed only marginally from those obtained through tendering. In the case of Saskatchewan, this amounted to a 41.9% share of advance car award traffic compared to a 43.8% share under tendering traffic. The proportion of movements from Manitoba also trailed, with a 12.3% share lagging behind the

Figure 40: Advance Car Awards – Provincial Origin



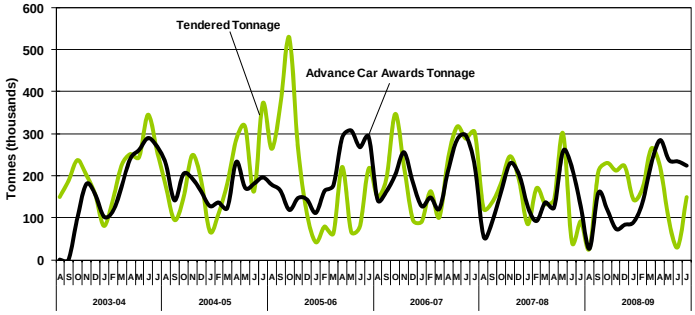
15.7% it secured in the movement of tendered grain. Although comparatively small, the shares from British Columbia accounted for 0.2% under both programs.

As was the case with tendered grain, the majority of the grain shipped under the advance car awards program, 95.6%, came from high-throughput elevators. This was greater than the 89.9% originated by these facilities a year earlier. Moreover, it proved to be the largest proportion yet observed during the GMP. High-throughput-elevator usage was comparable in each of the major grain producing provinces, with originations of 94.5% in Manitoba, 95.3% in Alberta, and 96.6% in Saskatchewan. These shares were also consistent with those observed for tendered grain shipments. In contrast, only the grain shipped from British Columbia came exclusively from conventional[75] facilities.

Monthly Distribution

The volume of grain moved under the CWB's advance car awards program averaged 158,000 tonnes per month, and varied from a low of 26,100 tonnes to a high of 284,800 tonnes. As suggested by earlier measures, this distribution differed from that observed for tendered grain.

Figure 41: Advance Car Awards – Monthly Distribution



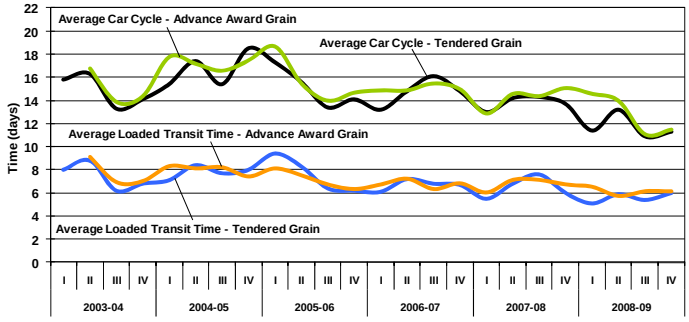
By coupling together tendered and advanced car awards movements, the grain companies have been able to maximize the cost-saving potential of larger block shipments whenever possible. This allows the grain companies to more fully exercise the flexibility that the advance car awards program was intended to bring to their planning activities.

Car Cycles

The average car cycle for grain shipped under the CWB's advance car awards program amounted to 12.2 days in the 2008-09 crop year. This value proved to be 15.3% less than the 14.4-day average recorded a year earlier. Moreover, it stood only marginally greater than the 11.8-day average observed in the case of tendered grain shipments. In fact, quarterly car-cycle values for advance car awards movements closely paralleled those observed under the tendering program, and were equally consistent with the broader improvement in the overall car cycle for the period. [See Table 2B-6 in Appendix 5.]

Although there were broad similarities, differences between the two programs still remained. The 6.1-day average loaded transit time for grain moved under the advance car awards program proved greater than the 5.6-day average associated with tendered grain shipments. Conversely, the average empty transit time was marginally lower than that of tendered grain, 6.1 days versus 6.2 days respectively.

Figure 42: Advance Car Awards – Car Cycle



Although the comparative averages for advance car awards movements were higher than those of tendered grain, they were 6.2% lower than those posted for non-tendered CWB movements in general, averaging 13.0 days. These similarities further support the observation that grain shipped under the CWB's tendering and advance car awards programs move largely in concert.

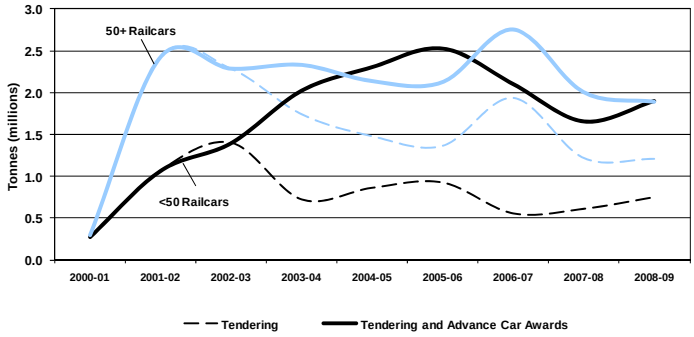
[75] See Section 1.3 Country Elevator Infrastructure, Facility Class for a full description of elevator types

Multiple-Car Blocks

The proportion of grain moving under the incentive programs, used by the railways to encourage shippers to move grain in multiple-car blocks, has increased substantially during the GMP. Shipments under these programs have accounted for about three-quarters of the overall grain volume since the 2001-02 crop year. But more often than not, the proportion of grain moving under incentive rates within the CWB's tendering program has trailed behind that observed for all grain shipments. As previously discussed, this proportion fell to 61.9% in the 2008-09 crop year, notwithstanding the fact that 97.7% of this traffic originated at high-throughput elevators, and that 79.1% was handled by the major grain companies.

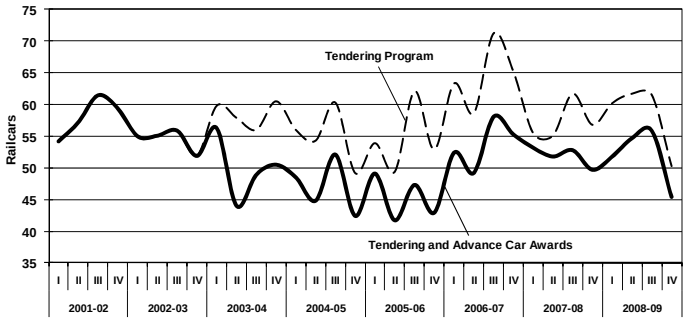
Yet, it is this very dominance that led the CWB and its agents to collectively roll back the proportion of total CWB movements that would be tendered., Beginning in the 2003-04 crop year, the amount of tendered grain moved from a minimum of 50% to a maximum of 20% and was complemented by another 20% that would move through the CWB's new advance car awards program. To an extent, the allocation mechanisms inherent in the advance car awards program partially protected the smaller grain companies, and ensured that they would be able to exercise a comparatively greater role in the movement of this 40% than they had been under the tendering program alone.[76]

Figure 43: Grain Volumes Moved in Multiple Car Blocks



Given the generally smaller facilities used by the non-major grain companies, shipments made using the rail cars provided through advance car awards are comparatively smaller in carrying capacity than those moved under the tendering program alone. This is equally true of shipments made by the major grain companies, since they frequently fill-out their tendered movements with cars loaded other grains whenever possible to take advantage of the higher discounts available to them. When combined, the result is an increased concentration of movements made in blocks of less than 50 cars, and a decrease in blocks of 50 or more cars. Whereas 38.1% of tendered grain movements were in blocks of less than 50 cars, when pooled with those made using advance car awards the proportion climbed to 50.3%. Conversely, the proportion moving in blocks of 50 or more cars decreased from 61.9% in the case of tendered grain shipments alone, to 49.9% when combined with those moved under the advance car awards program. [See Table 2B-7 in Appendix 5.]

Figure 44: Average Car Block – Tendering and Advance Awards



Multiple-Car Block Size

Although the tendering program produced an average car block of 59.7 cars for the 2008-09 crop year, when combined with movements under the advance car awards program the overall average was reduced by 12.1% to 52.5 cars. [See Table 2B-8 in Appendix 5.]

Using six years of data from the advance car

[76] The 40% cited here refers to the total derived from combining tendering and advance car awards. Advance car awards are granted on the same administered basis as the general CWB car awards, with 50% based on the recent 18 weeks of producer deliveries and 50% based on future deliver intentions, with no bidding on the part of the grain companies.

awards program, the statistics indicate that the joint movement of tendered and advance-car-awards grain has served to pull down the tendering program's higher average. Moreover, these averages display patterns that again draw attention to the complementary nature of these movements.

2.3 Commercial Relations – Other Developments

2.31 Grain Industry Continues to Seek Redress on Railway Service Issues

Stakeholder complaints over railway service and car allocation have increased steadily over the course of the past few years. Of particular concern has been a perceived decline in the consistency and reliability with which that service has been delivered. Grain shippers have frequently cited costly instances where railcars have not been spotted in a timely manner at country elevators for loading, or at destination terminals for unloading. The general car allocation process – always a contentious matter – also came under fire from shippers who argued that they were being shortchanged by the preference given to unit trains ordered through the railways' advance products.

These issues initially came to a head when one aggrieved grain shipper, Great Northern Grain Terminals Ltd. (GNG), opted to file a level-of-service complaint with the Canadian Transportation Agency in March 2007. In its complaint, GNG alleged that CN's advance products discriminated against it and other small shippers in the allocation of railcars, thus rendering them uncompetitive in the marketing of grain. Furthermore, the company alleged that CN had also failed to provide the complainant with an adequate level of rail service under its general car allocation program.[77]

In July 2007, the Agency determined that CN's car allocation practices had resulted in a significant deterioration in the service provided to GNG. Moreover, it found that CN had in fact breached its common carrier obligations and that GNG would likely suffer substantial commercial harm if the breach went unchecked.[78] Although CN was directed to make reasonable accommodation for GNG's specific transportation needs, the Agency also found the difficulties encountered by GNG were not isolated, but rather the product of a widespread "systemic" failure.[79]

Because of its implications for the industry at large, many of the GHTS's smaller shippers looked upon the Agency's decision with favour. These shippers anticipated that there would be a significant improvement in their ability to secure equipment and compete more fully in the 2007-08 crop year. In the weeks that followed, CN met with a variety of these smaller shippers in an effort to address the issues that had been raised by the Agency in its decision. Ultimately, however, the parties could not find the common ground needed to reconcile their differences. As a result, the structural process changes introduced by CN in August 2007 did little to mollify the concerns that these stakeholders had raised.

In September 2007 the CWB, along with five other companies, filed a series of new complaints with the Agency regarding the level of service they were receiving from CN.[80] Each alleged that the carrier was still failing to provide them with adequate rail service owing to, what they perceived to be, the inherent failings of the car allocation process. In arguments that largely paralleled those put forward by GNG six months before, it was asserted that CN's advance products were still discriminatory and ultimately hindered the efficient movement of grain. More specifically, it was alleged that owing to the inherent preference given by CN in allocating cars to

[77] In many ways the case acted as a lightning rod for a host of smaller shippers, with over 20 separate organizations having sought intervener status in the case.

[78] See Canadian Transportation Agency Decision Number 344-R-2007, dated 6 July 2007.

[79] Ibid.

[80] There were in fact six separate complaints filed with the Canadian Transportation Agency on the issue of CN service. In addition to that filed by the Canadian Wheat Board, these included filings from North East Terminal Ltd., North West Terminal Ltd., Paterson Grain, Parrish & Heimbecker Limited, and Providence Grain Group Inc. All complainants were members of what had came to be known as the CARS Group, which was formed with the aim of sharing the cars allocated to them in the aftermath of the advance products introduced by CN. Since all six filings dealt with a similar complaint, the Agency chose to address the complaints collectively.

shippers capable of guaranteeing 100-car train movements over a consecutive 42-week period, smaller shippers were simply unable to get the cars that they needed for their own operations.[81]

In January 2008, the Agency issued an interim decision that found that CN's advance products had caused the complainants substantial commercial harm in the 2006-07 crop year, and that the carrier was in breach of its level-of-service obligations.[82] Moreover, the Agency found that further harm was likely to be incurred if some form of corrective action was not taken. However, the Agency recognized that CN had made some effort at revising its advance products in order to better reflect the wider needs of shippers as the 2007-08 crop year got underway. Concluding that it simply could not gauge the effects of these changes in the absence of the pertinent data, the Agency deferred its final decision until all of the requisite data could be assembled and analyzed.[83]

On 25 September 2008, the CTA finally released its decision, deciding in favour of four of the six companies that filed complaints. The Agency found that, based on its established service performance benchmarks for the movement of western grain for these complainants, CN was in breach of its level of service obligations to four of the six applicants in the 2007-08 crop year.[84] Prescribing a remedy with performance-based standards, the Agency directed CN to ensure that these four grain companies henceforth received at least 80% of their weekly car orders. The order further stipulated that 90% of the confirmed car orders were to be delivered either in the week requested or in the two that followed, and that CN's performance would be assessed on the basis of a 12-week rolling average.

But complaints about the carrier's service were not to end there. In March 2009, Western Grain Trade Ltd. (WGTL) lodged a similar complaint with the CTA against the service it had been receiving from CN at its facility in Hamlin, Saskatchewan. As a processor and exporter of special crops, WGTL maintained that reliable and consistent rail service was essential to its commercial success. Moreover, the shipper alleged that the erratic service it was now receiving from CN had already undermined its business and caused it financial harm. The complainant indicated that it was ultimately seeking an order, consistent with the remedies previously advanced by the CTA in such matters, which would direct the carrier to provide service that better reflected the shipper's specific needs. By the close of the 2008-09 crop year, however, a decision in the matter had still not been rendered.

2.32 Kernel Visual Distinguishability (KVD) Removed for 2008-09 Crop Year

The Minister of Agriculture and Agri-Food announced in mid February 2008 that the KVD-based system which had been used to classify western Canadian wheat would end with the 2007-08 crop year. As of 1 August 2008, it was replaced by a system involving farmer-based declarations. The intent of this regulatory change was to encourage the development and introduction of new varieties of wheat with enhanced characteristics for traditional users as well as different quality attributes and yield potential for ethanol and feed usage. The Canadian Grain Commission (CGC) and the grain industry worked collectively to ensure that the changeover

[81] In light of this, the CWB and its fellow complainants requested that the Agency issue an interim order directing CN to suspend its advance products until their cases could be dealt with. Given the scope of the complaints that have been filed by these shippers, Agency staff at first attempted to mediate the dispute. However, by the end of September 2007 this effort at reconciliation had also met with failure, and the complaints were allowed to proceed. This was followed in mid October 2007 by the Agency's decision not to issue an interim order setting aside the carrier's advance programs, ruling that it could not find evidence of the irreparable harm that would warrant the undertaking of such extreme action. The Agency also found that it would be unreasonable to order CN to suspend these programs in the face of the potential impact this might have on other grain shippers.

[82] Collective reference is made here to the six decisions simultaneously delivered by the Canadian Transportation Agency. See Canadian Transportation Agency Decision Numbers 20-R-2008 through 25-R-2008, all dated 18 January 2008.

[83] The Canadian Transportation Agency ordered that each of the parties submit detailed information on grain movements during the first 36 weeks of the 2007-08 crop year. In general terms, the information requested was aimed at identifying the number of cars actually ordered, allocated and moved during this period.

[84] The four successful complainants were North East Terminal Ltd., North West Terminal Ltd., Parrish & Heimbecker Ltd. and Paterson Grain. The CTA ruled that CN did not breach its level of service obligation to the CWB and Providence Grain Group Inc. for the 2007-08 crop year. On 4 February 2009 the CWB, one of the two companies denied remedy under the CTA decision, filed an application appealing this decision to the Federal Court of Appeal, claiming that the CTA had erred by failing to take into account pertinent information from the 2007-08 crop year. At the close of the 2008-09 crop year, the matter had still not been heard.

did not compromise the integrity of the existing quality assurance system, as well as to develop a rapid-testing mechanism for implementation at a future date.

Following the adoption of this new declaration process, a long-standing concern with farmers inadvertently delivering wheat varieties that were no longer registered began to take on a new importance.[85] Although such deliveries affected very little of the grain that entered the GHTS, the CGC and the Canadian Food Inspection Agency recognized that an enhanced notification system was needed in order to ensure that producers had the most current information available regarding registered varieties. Both organizations vowed to address these issues in the near future.

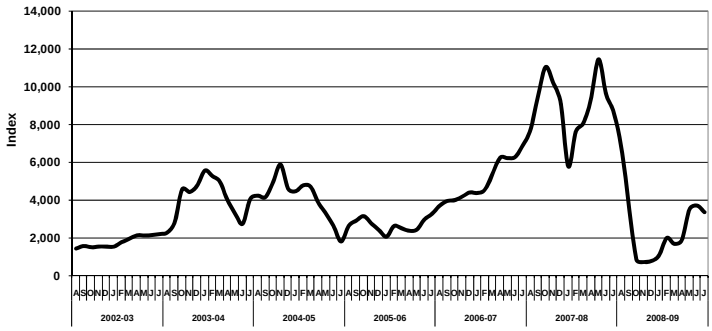
2.33 Ocean Freight Rates and Financial Turmoil

As discussed in previous editions of the Monitor's reports, ocean freight rates have fluctuated dramatically over the course of the last several crop years. From an initial value of about 1,400 points at the outset of the 2002-03 crop year, the Baltic Dry Index (BDI) moved sharply higher, peaking in the area of 6,000 points in both the 2003-04 and 2004-05 crop years.[86] However, ocean freight rates soon began to drift steadily lower, effectively bottoming out in the second quarter of the 2005-06 crop year at about 2,100 points. Still, this denoted the starting point in a more sustained price rally that witnessed the index climb to almost 6,900 points over the next six quarters.

Much of this price movement reflected the prevailing, and perceived future, demand for vessels to service China's growing trade in raw materials and finished goods. This had a significant impact on the export programs for CWB as well as non-CWB grains. In some cases, grain importers consciously deferred buying Canadian grain in the hope that ocean freight rates would moderate. In others, they simply turned to less-distant grain-exporting nations in an effort to contain these costs. Even in North America, the rise in these costs changed traditional routing decisions. By way of example, Canadian grain exports to Mexico, which had long used ocean-going vessels in movements from west coast ports, were being displaced by direct-rail shipments. The growing spread between other benchmark ocean freight rates resulted in more grain being moved through ports in the US Pacific Northwest as well as eastern Canada.

The first quarter of the 2007-08 crop year saw ocean freight rates climb even more dramatically, with the BDI surging past the 11,000 point level for the first time in its history. But market volatility returned, and rates began to plummet, falling by a factor of almost 50% in the next three months. Even so, by early June 2008 the BDI had rebounded to yet another all-time high, coming within striking distance of 12,000 points. And just as was the case a year earlier, this too proved short-lived. By the close of the 2007-08 crop year the BDI had again shed almost a third of its value, falling to 8,600 points.

Figure 45: Ocean Freight Rates – Baltic Dry Index



But any resurgence in ocean freight rates that may have been anticipated in light of previous market fluctuations was not to be seen in the first quarter of the 2008-09 crop year. Instead, ocean freight rates

[85] Under the *Canada Grain Act*, all wheat delivered into the licensed elevator system in western Canada must be of a type registered under the *Seeds Act* (administered by the Canadian Food Inspection Agency), otherwise it will be classified as feed wheat with a potential loss of up to a third of its value. The failure of some farmers to recognize that certain wheat varieties had been deregistered resulted in their deliveries being classified as feed wheat.

[86] The Baltic Dry Index is produced by The Baltic Exchange Limited, a London-based organization that provides independently gathered real-time freight market information such as daily fixtures, indices for the cost of shipping wet and dry cargos, route rates, as well as a market for the trading of freight futures. The Baltic Dry Index is a price index of ocean freight rates based on a composite of daily rate quotes for 24 shipping routes. The information presented in the accompanying chart is drawn from publicly available secondary sources.

virtually collapsed. By the end of October 2008, the BDI had cast off another 7,800 points to stand at just over 850 points. The index had fallen by an unprecedented 90% in the course of less than six months. This precipitous fall reflected a mounting financial crisis, which although rooted in the United States, was rapidly spreading around the world. In the face of an economic calamity that had not been seen in almost eighty years, the demand for consumer as well as industrial goods fell off sharply. The negative impact this had on the ocean movement of raw materials, especially to China, produced an extraordinary excess in shipping capacity.[87] Ships that had previously been in high demand were being sidelined in large numbers as the bottom fell out of the charter market.

The second quarter saw little improvement in the situation as nations around the world struggled to contain the spreading financial crisis. In a reflection of this the BDI continued to fall, ultimately dropping to less than 700 points before showing any signs of stabilizing. From the lows recorded in late 2008 the index crept modestly higher, climbing to about 1,100 points by the end of January 2009. Mounting investor confidence saw a further strengthening of the market in the third and fourth quarters, with the BDI sluggishly rising to about 1,900 points by the end of April, and then to almost 3,400 points at the close of July.

As observed previously, ocean freight rates can have a considerable impact on Canada's competitive standing in the international grain market. Western Canadian grain usually trades at a freight disadvantage in many parts of the world owing to the greater distances involved in shipping it to market. But the reverse is also true, with Canada's ability to compete often enhanced when ocean freight rates fall.

Although such was indeed the case for grain exports in the 2008-09 crop year, the fear that rippled through the financial markets effectively undermined the demand for a host of other Canadian commodities. Steep declines in exports of coal, fertilizers and forest products were reported throughout this period. And while the market for grain and oilseeds escaped the worst of this carnage, prices still fell sharply from their 2007-08 crop year highs. (A fuller discussion of these price changes can be found in Section 5). Even so, it became increasingly apparent that the export demand for Canadian grains, oilseeds and special crops was actually building. In fact, the capacity released from the downturn in other commodities enabled the GHTS to handle a record volume of export grain through to the end of the crop year.

2.34 Revenue Cap Adjusted to Reflect Reduced Maintenance Allowances

One of the more contentious issues that arose during the debate over the future of the hopper car fleet related to the actual costs incurred in maintaining them. This effectively came to a head when the Farmer Rail Car Coalition (FRCC) made a bid to acquire these cars in 2004. The FRCC's proposal was founded largely on the principle that these costs could effectively be reduced to an estimated annual average of $1,500 per car from the $4,329 per car that the railways were provided under the revenue cap.[88] A subsequent examination into the matter revealed that the actual maintenance costs did fall well below the allowances that had been granted.

To correct this, the federal government introduced an amendment to the *Canada Transportation Act* that would permit a one-time adjustment to the maintenance allowances accorded to CN and CP.[89] By more closely aligning this compensation with the actual cost of maintaining the hopper cars in regulated grain service, it was estimated that allowable carrier revenues could be reduced by as much as $2.00 per tonne. Towards the close of the 2006-07 crop year, the federal Minister of Transport, Infrastructure and Communities formally requested that the Canadian Transport Agency make this adjustment.

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[87] A large portion of this capacity had recently come online following ship-building programs initiated in response to the surge in ocean freight rates caused by China's economic expansion. Much of this was derived from a seemingly insatiable Chinese demand for iron ore and coal, which had been placing a tremendous strain on the shipping industry's dry bulk capacity, and driving up ocean shipping rates in the process.

[88] The annual average of $4,329 per car cited here was developed by the Canadian Transportation Agency at the request of Transport Canada using the 1992 costing base, and represents an estimate of the associated maintenance costs embedded in the CN and CP revenue caps for the 2003-04 crop year. It should be noted that this estimate was specific to the FRCC proposal and, therefore, did not take into consideration other cost elements where some maintenance provisions may have been excluded.

[89] Bill C-11, *An Act to amend the Canada Transportation Act and the Railway Safety Act and to make consequential amendments to other Acts*, received Royal Assent on 22 June 2007.

Since the calculation of this adjustment was expected to take several months to complete and be applicable to the revenues that CN and CP would earn over the course of the entire 2007-08 crop year, the Agency issued an interim decision wherein it advised the railways that the Volume Related Composite Price Index (VRCPI) was being rolled back from its previously determined value of 1.1611 to 1.0884.[90]

In February 2008 the Agency rendered its final determination in the matter, finding that a one-time adjustment of $72.2 million was warranted. This translated into an estimated $2.59 per tonne compared to the $2.00-per-tonne value that had been approximated initially. As a result, the Agency rolled back the VRCPI for the 2007-08 crop year even further: to 1.0639 from the interim estimate of 1.0884.[91] Having disagreed with various aspects of the process as well as the final determination, both CN and CP decided to appeal the Agency's decision to the Federal Court of Appeal. Hinging much on the success of this appeal, the carriers did little to reduce their rates by the magnitude needed to avoid a significant overage in their revenue caps, which was later calculated at $59.8 million before applicable penalties.[92]

However, in November 2008 the Federal Court of Appeal ruled against the railways, upholding the Agency's determination and the one-time adjustment of $72.2 million.[93] Dissatisfied with this, the carriers sought leave to appeal the decision before the Supreme Court of Canada.[94] The court, however, dismissed the application towards the end of the third quarter.[95] Although this brought the matter to a conclusion, it must be remembered that during the appeal process neither carrier had moved to modify their prevailing rate structures in order to provide for the one-time adjustment in the maintenance allowances that had been mandated. This meant that both CN and CP ran the risk of exceeding their revenue caps for the 2008-09 crop years by a substantial margin if the courts ultimately failed to find in their favour. With their legal options exhausted, the railways moved quickly to reduce their rates in order to mitigate this risk.

2.35 Amendments to the Canada Grain Act Reintroduced

In September 2006 the federal government tabled a report completed by Compas Inc., a Toronto-based research firm, which had been selected to lead an independent statutory review of the Canadian Grain Commission (CGC) and the *Canada Grain Act*. Built on its consultations with hundreds of stakeholders, the Compas report recommended a number of substantive changes to the mandate of the CGC, many of which would fundamentally alter the way the GHTS works today.[96] Of particular importance were the implications arising from the report's recommendation regarding quality assurance, and the potential alteration of a classification system that has long been based solely on Kernel Visual Distinguishability (KVD).[97]

Following its referral to the House of Commons Standing Committee on Agriculture and Agri-Food, the committee advanced 12 specific recommendations. Among the most noteworthy were those calling for the alteration of the CGC's existing governance structure; that farmers maintain their access to producer-car loading; and that inward inspection services be made optional. In addition, the committee also suggested that

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[90] The Volume Related Composite Price Index for the 2007-08 crop year was originally given a value of 1.1611 by the Agency. See Canadian Transportation Agency Decision Number 211-R-2007, dated 27 April 2007. This was subsequently reduced to 1.0884 in consideration of the previously estimated $2.00-per-tonne adjustment the Agency was being asked to make. See Canadian Transportation Agency Decision Number 388-R-2007 dated 31 July 2007.

[91] See Canadian Transportation Agency Decision Number 67-R-2008, dated 19 February 2008.

[92] See Canadian Transportation Agency Decision Number 628-R-2008, dated 30 December 2008.

[93] See consolidated decision of the Federal Court of Appeal, *Canadian National Railway Company v. Canadian Transportation Agency,* 2008 FCA 363, dated 24 November 2008.

[94] CN and CP both filed applications for leave to appeal on 23 January 2009.

[95] The Supreme Court of Canada dismissed the application without costs on 23 April 2009.

[96] These recommendations were outlined more fully in section 2.35 of the Monitor's Annual Report for the 2006-07 Crop Year.

[97] KVD provided a low-cost means of identifying wheat types that fit into the various uniform classes established as part of the variety registration system in Canada. In order for unrestricted registration, production and handling of a wheat variety, it has to conform to visual recognition that it is part of a "class" indicative of intrinsic and processing quality.

KVD be abandoned, and replaced with a system of farmer declarations supported by science-based mechanisms of quality control.

Building on these recommendations the federal government moved to amend the *Canada Grain Act*, introducing Bill C-39 in the House of Commons on 13 December 2007. Among the amendments being advanced were provisions aimed at clarifying the CGC's core mandate, removing its obligation to provide mandatory inward inspections at terminal and transfer elevators, and ending its administration of the producer payment security program.

The CGC's mandate was to be divided into two parts. The first dealt with the affirmation of its role in establishing and maintaining the quality standards that would govern Canadian grain, as well as in the regulation of grain handling in Canada so as to ensure that these standards are respected. The second part underscored the CGC's responsibility to protect the interests of grain producers in delivering their grain to elevators and grain dealers, in securing their access to binding determinations on the grade and dockage of their deliveries, and in their allocation of producer cars.

One of the more controversial changes put forward in Bill C-39 related to the making of inward grain weighing and inspection at terminal and transfer elevators an optional service. Even so, producers would still retain the right to have any shipment weighed and inspected, with the elevator operator being obligated to furnish them with access to an independent service provider whenever such requests were made. In the event of a grading dispute between the parties, the CGC would serve as a binding arbitrator. Notwithstanding this alteration to the existing process, the CGC would still continue to perform the outbound inspection on all export shipments in order to safeguard the quality of the grain leaving Canada.

Finally, the elimination of the producer payment security program was aimed at reducing costs and bringing the western Canadian grain industry into line with that of eastern Canada and other agricultural sectors. The program, commonly referred to as "bonding", was seen as a barrier to potential new entrants. Its removal was intended to open the door to producer-driven initiatives, such as the development of a "commodity clearing house," in order to manage commercial risks in a more cost-effective manner.[98]

However, with the proroguing of the 39th Parliament on 7 September 2008, Bill C-39 died on the House of Commons order paper. These amendments were effectively resurrected, however, and reintroduced in the House of Commons on 24 February 2009 as Bill C-13. Even so, the bill soon came under attack from the opposition. Before the bill was introduced for second reading, which would have then seen it referred to the Standing Committee on Agriculture and Agri-Food for further study, the opposition parties moved to postpone its reading for six months. Known as a "hoist amendment," the action was tantamount to defeating the bill by postponing its consideration. At the close of the 2008-09 crop year, it was not clear what further action – if any – the government was contemplating.

2.4 Summary Observations

The 2008-09 crop year denoted the ninth for the Canadian Wheat Board's (CWB) tendering program. More significantly, it was the sixth year in which the CWB targeted to move a fixed 40% of its overall grain movement to the four ports in western Canada using a combination of tendering and advance car awards. Under the terms of this arrangement, about half of this volume – representing a maximum of 20% of its overall grain movements – was to be tendered.

The CWB issued a total of 266 tenders calling for the shipment of approximately 3.4 million tonnes of grain, an increase of 80.6% over the 1.9 million tonnes that had been sought a year earlier. As in past years, the vast majority of the grain put out to tender, 64.9%, called for the movement of wheat. For the 2008-09 crop year this entailed a potential movement of 2.2 million tonnes, which stood 44.2% above the previous crop year's 1.5 million tonnes. Barley tenders ranked second in terms of overall size, with calls for over 0.9 million tonnes, or 27.5% of the overall total, having been issued. Barley calls, which took a 7.6% share, accounted for the remaining 0.3 million tonnes.

[98] For more information on producer payment security models, see Appendix A of the "Government Response to the Fifth Report of the Standing Committee on Agriculture and Agri-Food on the Review of the *Canada Grain Act* and the Canadian Grain Commission Conducted by Compas Inc.," tabled 16 April 2007.

There was also a noticeable shift in the comparative amounts these tenders sought to direct to the four ports in western Canada. Of the total volume called, 79.7% was intended for export through the west coast ports of Vancouver and Prince Rupert. This proved somewhat greater than the 73.3% share moved through these ports a year earlier. There was also another noticeable shift in the allocation between these two ports, with Prince Rupert's share rising to a record 52.8% from the previous crop year's 41.3%, while Vancouver's fell to 26.9% from 32.0%. The share accorded to the port of Thunder Bay also showed a marked reduction in the face of Prince Rupert's gain, falling to 20.3% from 26.7% a year earlier. For the fourth consecutive year, no calls were issued in favour of Churchill.

The CWB's tender calls were met by 822 bids offering to move 5.6 million tonnes of grain, more than one-and-a-half times the amount sought. The majority of these bids, 70.6%, responded to calls for the movement of wheat. Another 23.3% responded to those issued for barley, while the remaining 6.1% answered those for durum. On the whole, bidding appeared more muted than in the preceding crop year, particularly with respect to durum.

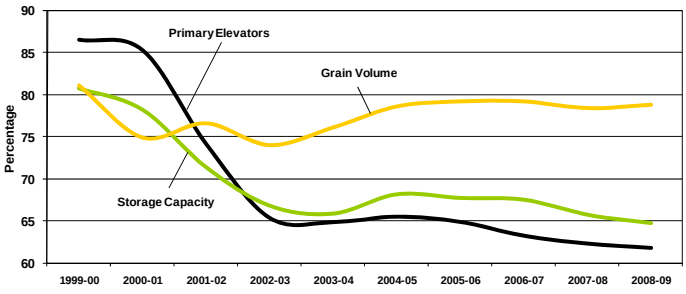
A total of 316 contracts were subsequently signed for the movement of 2.2 million tonnes of grain. This represented 14.4% of the tonnage shipped by the CWB to western Canadian ports during the 2008-09 crop year, and fell well short of its 20% target. Of the tonnage moved, 42.6% was shipped to Prince Rupert, 38.9% to Vancouver, and 18.5% to Thunder Bay. In addition to showing a diminished role for Vancouver and Churchill, these results mark the fourth instance where Thunder Bay failed to place at least second in terms of the largest export gateways for tendered grain.

Although improved market conditions have brought about a restoration of the bidding patterns that had been observed earlier in the CWB's tendering program, the monetary value of the discounts bid have been retreating in recent years. A more sustained reduction was in evidence during the 2008-09 crop year. Although the discounts advanced on wheat in the first quarter fell back marginally to $23.01 per tonne, they began to move substantially lower in the second quarter, eventually dropping to a low of $7.11 per tonne by the end of the crop year. The fourth quarter produced some of the lowest recorded bids in five years.

Despite the steady erosion in the discounts offered by the grain companies in their tender bids, the transportation savings accruing to the CWB – and ultimately passed back to producers through its pool accounts – actually increased in the 2008-09 crop year. To a large extent, this was due to the compensating effects of an 18.2% increase in the amount of grain moved under the tendering program. The CWB estimates that the savings generated from these and other sources increased by 12.7%, rising to $34.5 million from $30.6 million a year earlier.

A total of 1.9 million tonnes of grain moved under the CWB's advance car awards program during the 2008-09 crop year. This represented 12.2% of the CWB's total shipments to western Canadian ports, which constituted a loss of 1.5 percentage points from the 13.7% share garnered a year earlier. In conjunction with the volume that moved under its tendering program, a combined 26.5% of the CWB's total shipments moved under these two programs. This fell considerably short of the 40% that had been targeted, as well as the 28.0% that had been handled in the 2007-08 crop year.

Figure 46: Relative Shares of the Three Largest Grain Companies



In a number of respects, the grain shipped under the advance car awards program paralleled that moved under the tendering program. These similarities effectively underscore the fact that grain moving under the advance car awards program did so largely in tandem with that shipped under the tendering program. This strongly hints at a structural dynamic that links the two programs, and suggests that grain companies have been exploiting the flexibility that the advance car awards program was intended to bring to their planning activities.

Despite the concern raised by a number of stakeholders respecting the potential ability of major grain companies to displace their smaller competitors in the marketplace, the overall market share secured by the larger grain companies has not changed significantly in the last decade, falling to 78.8% from 81.1%. Moreover, they still dominate the primary elevator network. As of 31 July 2009, the major grain companies still held sway over 61.7% of the elevators, and 64.7% of the storage capacity, although these constituted significant reductions from the 86.5% and 80.7% shares respectively held at the end of the GMP's first year.

These shifts are at odds with the expectations of those who, at the outset of the GMP, voiced the concern that industry rationalization would significantly reduce competition. To some extent, these shifts indicate that the level of competition in the GHTS has actually risen. The emergence of various independent elevator operations has undoubtedly helped to build the market position of the non-major grain companies. In addition, the establishment of licence-exempt producer-car loading facilities, and the relative gain in producer-car movements, has also been a contributing factor. But it remains to be seen whether the same resilience will be observed in the face of other potential changes.

Among other important commercial events recorded during the 2008-09 crop year were:

- Dissatisfaction over CN service led six grain shippers to bring level-of-service complaints against the carrier before the Canadian Transportation Agency in September 2007. One year later, the Agency released its final decision, finding that CN had breached its level-of-service obligations to four of the six applicants. Prescribing a remedy with performance-based standards, the Agency directed CN to ensure that these four grain companies henceforth received at least 80% of their weekly car orders. But complaints about the carrier's service were not to end there. In March 2009, Western Grain Trade Ltd. lodged a similar complaint against CN for the service it had been receiving. By the close of the 2008-09 crop year, a decision in the matter had still not been rendered.

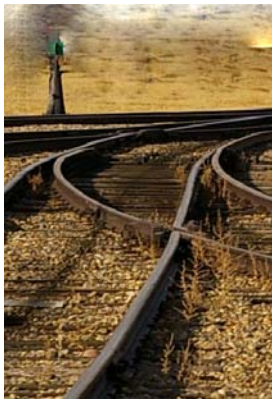
- The federal government ended the use of Kernel Visual Distinguishability (KVD) in classifying western Canadian wheat at the end of the 2007-08 crop year. As of 1 August 2008, it was replaced by a system involving farmer-based declarations. Following the adoption of this new declaration process, a long-standing concern over farmers inadvertently delivering wheat varieties that were no longer registered began to take on new urgency. Although few such deliveries were made, the Canadian Grain Commission and the Canadian Food Inspection Agency recognized that an enhanced notification system was needed in order to avoid future occurrences. Both organizations vowed to address these issues.

- Although the revenue cap was adjusted in the 2007-08 crop year to reflect a one-time adjustment to the maintenance allowances accorded to CN and CP, both carriers appealed the Canadian Transportation Agency's final determination. However, the Federal Court of Appeal ruled against the railways, upholding the Agency's determination and the one-time adjustment of $72.2 million. While the carriers had also sought leave to appeal this decision before the Supreme Court of Canada, the court dismissed the application.

Section 3: System Efficiency

One of the chief aims in the government's decision to move the GHTS towards a more commercial orientation was to improve overall system efficiency. This stems from the belief that a more efficient system will ultimately enhance the competitiveness of Canadian grain in international markets to the benefit of all stakeholders.

The indicators presented here are intended to examine the relative change in the efficiency of the GHTS. A preceding section – Industry Overview – addressed changes observed in the basic components of the GHTS (country elevators, railways, and terminal elevators). In comparison, the following series of indicators largely concentrates on how these assets are utilized, and the overall time it takes grain to move through the system.



Highlights – 2008-09 Crop Year

Trucking

- *The Composite Freight Rate Index for short-haul trucking climbed by 5.3% at the beginning of the 2008-09 crop year*
  - *Rises to 132.2 largely in reflection of strong prevailing demand.*

Country Elevators

- *Throughput for 2008-09 crop year increased by 10.9% to 35.3 million tonnes.*
  - *Largest throughput recorded during the GMP.*
- *The average elevator capacity-turnover ratio increased 11.7% to a record 6.7 turns.*
  - *Performance bolstered by the last decade's 1.0-million-tonne reduction in elevator storage capacity.*
- *Average weekly stock levels decreased 0.7% to 2.7 million tonnes.*
  - *Inventory decreases largely tied to heightened activity in the second half.*
  - *Long-term reduction reflects sensitivity to declining storage capacity.*
- *Average number of days-in-store decreased by 10.9% to a record low of 27.7 days.*
- *Average weekly stock-to-shipment ratio declined 13.3% to 3.9.*
  - *Reflects heightened activity in the second half.*
- *Posted tariff rates for elevator handling activities all increased:*
  - *Receiving, elevation and loading – increased by 4.9%.*
  - *Cleaning – increased by 2.9%.*
  - *Storage – increased by 7.1%.*

Rail Operations

- *Average car cycle fell by 15.3% to a record GMP low of 13.4 days.*
  - *Empty transit fell by 16.2% to 6.6 days; loaded transit fell 14.4% to 6.8 days.*
    - *Improvement spurred by freeing of railway capacity.*
- *Proportion of grain moving under incentive programs increased marginally to 78.9%.*
  - *Railway incentive payments estimated at $132.0 million – up 41.4%.*
    - *Driven largely by increased discounts and a 21.2% gain in volume.*
    - *Average discount increased 13.4% to $6.25 per tonne.*
- *Single car freight rates show more signs of differentiation in the 2008-09 crop year.*
  - *Initial increases denoted application of seasonal pricing by CN and CP.*
  - *Reductions in the second and third quarters denoted the restructuring of rates to reflect a prescribed one-time adjustment in their revenue caps.*
  - *Scope of year-to-date changes in single-car freight rates:*
    - *CN: Vancouver – down by 4.1%; Prince Rupert – down by 2.3%; Thunder Bay – down by 19.2%.*
    - *CP: Vancouver – up by 3.7%;Thunder Bay – down by 2.8%*
- *Canadian Transportation Agency established Revenue Cap of $965.1 million.*
  - *Total grain revenues $964.6 million; $0.5 million less than allowed.*
    - *CN revenues exceed its cap by $0.7 million.*
    - *CP revenues fall $1.1 million below its cap.*
  - *Average revenue increased 1.5% to $30.92 per tonne.*

Terminal Elevators and Port Performance

- *Terminal throughput increased by 16.4% to a GMP record of 25.6 million tonnes.*
- *The average elevator capacity-turnover ratio increased by 17.6% to 10.0 turns.*
- *Average weekly stock level decreased 6.0% to 1.3 million tonnes.*
- *Average time in port decreased 8.0% to 4.6 days.*
- *Posted tariff rates for terminal elevator handling activities increased.*
  - *Receiving, elevation and loading – increased by 2.3%.*
  - *Storage charges – increased by 5.4%.*

Indicator Series 3 – System Efficiency

Table	Indicator Description	Notes	BASE 1999-00	CURRENT REPORTING PERIOD (1) 2007-08	2008-09	% VAR	
	Trucking [Subseries 3A]						
3A-1	Composite Freight Rate Index – Short-haul Trucking		100.0	125.5	132.2	5.3%	▲
	Primary Country Elevators [Subseries 3B]						
3B-1	Grain Volume Throughput (000 tonnes)		32,493.9	31,886.4	35,349.1	10.9%	▲
3B-2	Average Elevator Capacity Turnover Ratio		4.8	6.0	6.7	11.7%	▲
3B-3	Average Weekly Elevator Stock Level (000 tonnes)		3,699.3	2,705.5	2,686.7	-0.7%	–
3B-4	Average Days-in-Store (days)		41.7	31.1	27.7	-10.9%	▼
3B-5	Average Weekly Stock-to-Shipment Ratio – Grain		6.2	4.5	3.9	-13.3%	▼
3B-6	Average Handling Charges – Country Delivery Points	(2)					
	Rail Operations [Subseries 3C]						
3C-1	Hopper Car Grain Volumes (000 tonnes) – Province						
3C-2	Hopper Car Grain Volumes (000 tonnes) – Primary Commodities		25,662.3	22,084.0	26,760.0	21.2%	▲
3C-3	Hopper Car Grain Volumes (000 tonnes) – Detailed Breakdown						
3C-4	Railway Car Cycle (days) – Empty Transit Time		10.7	7.9	6.6	-16.2%	▼
3C-4	Railway Car Cycle (days) – Loaded Transit Time		9.2	8.0	6.8	-14.4%	▼
3C-4	Railway Car Cycle (days) – Total Transit Time		19.9	15.9	13.4	-15.3%	▼
3C-5	Railway Car Cycle (days) – Non-Special Crops		19.3	15.7	13.3	-15.4%	▼
3C-6	Railway Car Cycle (days) – Special Crops		25.8	18.1	15.6	-14.3%	▼
3C-7	Railway Car Connections (days)						
3C-8	Hopper Car Grain Volumes (000 tonnes) – Non-Incentive		12,715.9	5,149.5	5,650.4	9.7%	▲
3C-8	Hopper Car Grain Volumes (000 tonnes) – Incentive		12,945.5	16,934.5	21,109.6	24.7%	▲
3C-9	Hopper Car Grain Volumes ($millions) – Incentive Discount Value		$31.1	$93.3	$132.0	41.4%	▲
3C-10	Traffic Density (tonnes per route-mile) – Grain-Dependent Network		442.5	427.5	526.5	23.2%	▲
3C-10	Traffic Density (tonnes per route-mile) – Non-Grain-Dependent Network		292.4	269.3	334.8	24.3%	▲
3C-10	Railway Traffic Density (tonnes per route-mile) – Total Network		330.3	303.1	373.4	23.2%	▲
3C-11	Composite Freight Rates – Rail	(2)					
3C-12	Multiple-Car Shipment Incentives – Rail	(2)					
3C-13	Effective Freight Rates – CTA Statutory Revenue ($ per tonne)		n/a	$30.45	$30.92	1.5%	▲
	Terminal Elevator and Port Performance [Subseries 3D]						
3D-1	Annual Port Throughput (000 tonnes) – Grain		23,555.5	22,026.4	25,639.0	16.4%	▲
3D-2	Average Terminal Elevator Capacity Turnover Ratio		9.1	8.5	10.0	17.6%	▲
3D-3	Average Weekly Terminal Elevator Stock Level (000 tonnes)		1,216.2	1,432.7	1,346.4	-6.0%	▼
3D-4	Average Days-in-Store – Operating Season (days)		18.6	21.0	16.7	-20.5%	▼
3D-5	Average Weekly Stock-to-Shipment Ratio – Grain	(2)					
3D-6	Average Weekly Stock-to-Shipment Ratio – Grade	(2)					
3D-7	Average Vessel Time in Port (days)		4.3	5.0	4.6	-8.0%	▼
3D-8	Distribution of Vessel Time in Port	(2)					
3D-9	Distribution of Berths per Vessel	(2)					
3D-10	Annual Demurrage Costs ($millions)		$7.6	$23.3	$11.2	-51.9%	▼
3D-10	Annual Dispatch Earnings ($millions)		$14.5	$29.3	$37.6	28.2%	▲
3D-11	Average Handling Charges – Terminal Elevators	(2)					

(1) – In order to provide for more direct comparisons, the values for the 1999-2000 through 2008-09 crop years are "as at" or cumulative to 31 July unless otherwise indicated.
(2) – Changes in the data cited cannot be depicted within the summary framework presented here. The reader is encouraged to consult the detailed data tables found in Appendix 5 as required.

3.1 Trucking *[Measurement Subseries 3A]*

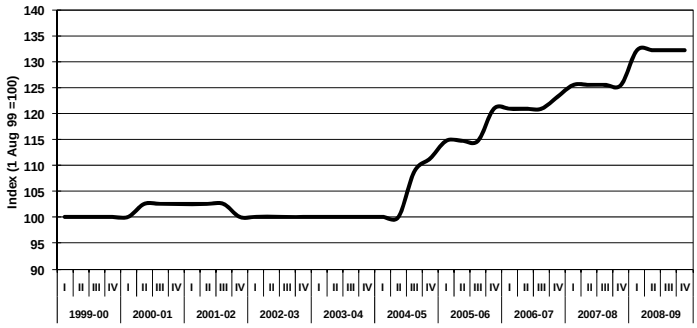
The first step in the process of moving grain through the GHTS typically involves its shipment by truck to a country elevator. Although the distance traveled in doing so can be as little as a few miles, it can also extend to upwards of 100 or more. Furthermore, a wide assortment of equipment is employed to accomplish this. These include not only comparatively smaller producer-owned vehicles, but the higher-capacity trucks used in for-hire trucking operations. In addition, a number of grain companies also offer their own "in-house" trucking services. This gives the producer the option of contracting directly with the grain company for the on-farm pick-up of their grain, and its delivery to the elevator.

The GMP gathers rate data pertaining to the pick-up and delivery services offered by these grain companies in nine geographic regions. These rates are then combined to create a composite rate scale for commercial truck movements within western Canada as a whole, and indexed to measure changes in these costs over time. As

outlined in the Monitor's earlier reports, this survey revealed that the larger grain companies offered producers similar trucking services, albeit at marginally differing costs. Moreover, with the exception of fuel surcharges, which were selectively applied over an 18-month period that straddled the 2000-01 and 2001-02 crop years, the underlying structure of these commercial freight rates effectively remained unchanged throughout the GMP's first five years.

To a large extent, an excess of capacity in the face of reduced demand helped to contain these rates, with the largest grain companies offering commercial trucking services that provided a competitive environment instrumental for containing these rates. Even so, the input costs for these services had been rising steadily.

Figure 47: Composite Freight Rate Index – Short-Haul Trucking



Over the course of the next four crop years, commercial trucking rates rose by a factor of 25.5%. Ultimately, this increase reflected the effects of rising fuel and labour costs. Increased grain shipments also served to heighten the demand for carrying capacity, which gave service providers a greater degree of latitude in passing these costs onto their customers.

The 2008-09 crop year saw short-haul trucking rates rise even further, increasing by about 5.3%. This increased inflationary pressure resulted in the composite price index rising to 132.2 at the outset of the first quarter. Much of this inflationary pressure appears to have been tied to the prevailing demand for carrying capacity in the face of increased grain shipments. [See Table 3A-1 in Appendix 5.]

3.2 Primary Country Elevators *[Measurement Subseries 3B]*

Primary country elevator throughput for the 2008-09 crop year, as measured by shipments from primary elevator facilities, increased by 10.9%, rising to 35.3 million tonnes from 31.9 million tonnes a year earlier. This constituted the largest volume yet observed during the GMP, surpassing the previous record by almost 1.8 million tonnes.[99] This result was driven by unusually heavy volumes in both the third and fourth quarters. The 10.0 million tonnes passing through the system in the third quarter denoted the single largest quarterly volume witnessed to date.[100]

Notwithstanding the overall result, the 2008-09 crop year's initial grain shipments trailed well behind those posted a year earlier. Shipments in the first quarter were down by 12.1% before rebounding in the second quarter. A substantial strengthening in the third and fourth quarters saw these volumes easily exceed those posted twelve months before by a factor of one-third. This pattern, where the tonnage handled in the second half eclipsed that handled in the first, reflected the unusual market conditions resulting from the international financial crisis. This afforded the GMP an opportunity to gauge the operational efficiency of the primary country elevator system under the heaviest workload yet encountered.[101]

The increase in throughput was broadly distributed, with all of the major grain-producing provinces registering double-digit gains. With a 13.6% increase, Saskatchewan posted the largest increase in throughput, shipping a total of 17.2 million tonnes compared to 15.1 million tonnes the year before. This was followed by Alberta,

[99] The previous record was set in the 2006-07 crop year, with a throughput of 33.5 million tonnes.

[100] The 10.0 million tonnes of grain shipped from primary elevators in the third quarter surpassed the previous record of 9.4 million tonnes, set in the first quarter of the 2007-08 crop year, by 0.6 million tonnes, or 6.6%.

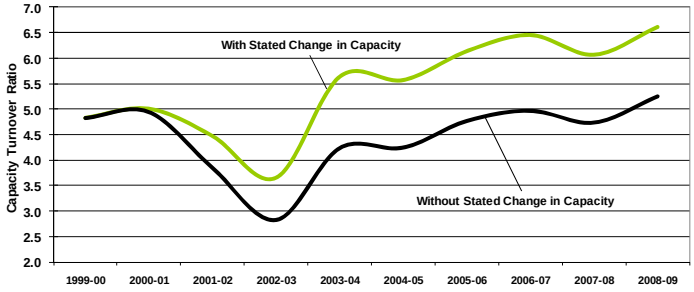
[101] In gauging the throughput of the country elevator system, the GMP focuses on both the truck and railway shipments made from primary elevators. The volume of grain passing through process elevators is excluded from this calculation.

which shipped a record 11.4 million tonnes, some 11.4% more than the 10.2 million tonnes in the previous year. Manitoba reported an increase of 6.1%, with throughput rising to 6.6 million tonnes from 6.2 million tonnes a year earlier. Running counter to this was British Columbia, which reported a 40.9% reduction in primary elevator throughput, and shipments of just 0.2 million tonnes. [See Table 3B-1 in Appendix 5.]

Capacity Turnover

The effect of changes in both throughput and storage capacity come together in the primary elevator system's capacity-turnover ratio. In light of the increase in throughput, the capacity-turnover ratio increased 11.7%, rising to a GMP record of 6.7 turns from 6.0 turns a year earlier.

Figure 48: Change in Capacity – Impact on Capacity Turnover Ratio



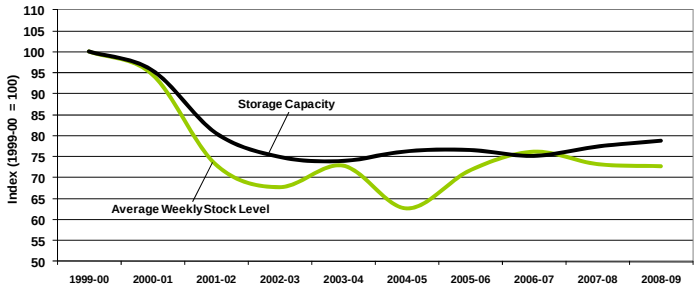
As with the overall ratio, the ratios of most producing provinces also increased. Although Alberta's ratio increased by a comparatively moderate 6.8%, its ratio again outranked all others, reaching a record-setting 7.8 turns in comparison to 7.3 turns a year earlier. A similar 6.3% increase was also posted by Manitoba, which reported a record 6.7 turns compared to 6.3 turns in the previous year. Rounding out this group was Saskatchewan, where a 9.1% increase boosted its ratio to 6.0 from 5.5. For British Columbia, the only province to post a decrease, the ratio fell by 34.5%, to 3.8 turns from 5.8 turns the year before. [See Table 3B-2 in Appendix 5.]

Although the changes in turnover ratios since the 2002-03 crop year have largely been volume related, the real improvement in the capacity-turnover ratio made since the beginning of the GMP has come from a reduction in storage capacity some - 16.0%, or 1.0-million-tonnes. This broader reduction reflects the effects of the grain companies' elevator rationalization programs, and their efforts to improve the utilization of these assets. When viewed from a perspective that considers a scenario if storage capacity had not been reduced, the 2008-09 crop year's ratio would have been 5.3 turns instead of 6.7 turns. This 1.4-turn differential draws attention to the fact that the primary elevator system has improved its handling efficiency by an estimated 25.9% over the course of the last decade.

Elevator Inventories

In assessing the operational efficiency of the primary elevator system, the GMP also considers the impact of any change in the amount of grain maintained in inventory. Beyond measuring actual stock levels, this examination also takes into account the amount of time grain spent in inventory, as well as its ability to satisfy immediate market demand.

Figure 49: Relative Change in Primary Elevator Storage Capacity and Average Stock Levels

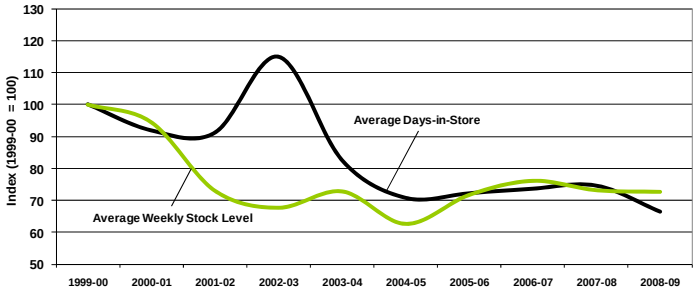


In concert with the general reduction in storage capacity, grain inventories have also been declining. By the end of the 2002-03 crop year, the primary elevator network's average weekly stock level had fallen to 2.5 million tonnes. And even though the 2003-04 crop year's average climbed to 2.7 million tonnes, it still remained below the GMP's first year benchmark of 3.7 million tonnes. This downward trend was accentuated even further in the 2004-05 crop year when a late harvest heightened the demand for high-quality grain and reduced the average to a record low of 2.3 million tonnes. From this point

inventories began to rise, returning to an annual average of about 2.7 million tonnes. [See Table 3B-3 in Appendix 5.]

The 2008-09 crop year saw little change in prairie grain inventories, with the average holding at 2.7 million tonnes. Even so, it is worth noting that the 27.4% net decline in primary elevator inventories over the course of the last decade only marginally exceeded a 21.1% reduction in storage capacity. This means that, despite periodic fluctuations in average inventories, the amount of grain maintained in inventory has largely declined in step with the system's overall storage capacity. In fact, the proportion of the system's capacity dedicated to the holding of inventory remained comparable to that observed at the beginning of the GMP.[102]

Figure 50: Relative Change in Average Weekly Stock Levels and Average Days in Store



Just as the average stock level has moved generally lower, so too has the average amount of time spent by grain in inventory. From a benchmark 41.7 days in the GMP's base year, the average number of days-in-store fell by 29.3% to a relative low of 29.5 days in the 2004-05 crop year.[103] As was the case with stocks, however, this average moved moderately higher in the years that followed, ultimately reaching a more recent high of 31.1 days in the 2007-08 crop year. The 2008-09 crop year saw this trend reversed, with the average dropping by 10.9% to a record GMP low of 27.7 days. Much of this decline was driven by significant reductions in the third and fourth quarters, with the averages falling to 26.5 days and 24.0 days respectively. [See Table 3B-4 in Appendix 5.]

Some of the more noteworthy year-over-year changes in these averages are summarized in the table that follows:

Province	Days-in-Store	Change	Grain	Days-in-Store	Change
Saskatchewan	28.5 days	Down 15.4%	CWB Grains		
Manitoba	26.6 days	Down 11.0%	Wheat	34.3 days	Down 7.0%
Alberta	25.6 days	Down 7.2%	Durum	38.4 days	Down 0.8%
British Columbia	42.0 days	Up 15.1%	Barley	24.1 days	Up 12.6%
			Non-CWB Grains		
			Canola	15.8 days	Down 40.2%
			Oats	22.2 days	Down 16.9%
			Flaxseed	29.2 days	Down 8.8%
			Peas	23.8 days	Up 12.3%

The adequacy of country elevator inventories can be gauged by comparing their level at the end of any given shipping week, with the truck and railway shipments actually made in the next seven days. In the event that the ratio of these two values amounts to 1.0, it would mean that country elevator stocks exactly equalled shipments made in the following week. A ratio above this value would denote a surplus supply in the face of

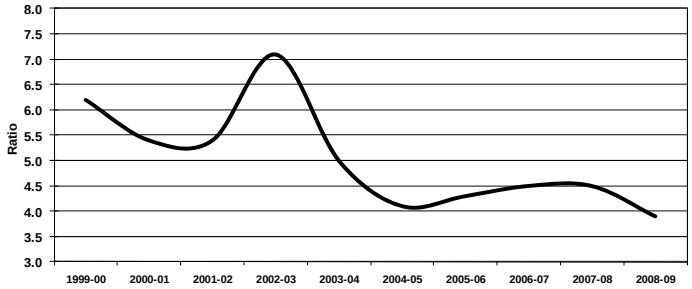
[102] Primary elevator inventories saw an average of 54.3% of the system's storage capacity in the 1999-2000 crop year. This proportion fell to 50.0% in the 2008-09 crop year, indicating the relative capacity employed by grain inventories was only marginally less than that of a decade earlier.

[103] It should be noted that this downward trend was disrupted in the 2002-03 crop year when a sharp reduction in the sales programs for CWB, as well as for non-CWB, grains resulted in the average climbing to a record high during the GMP of 47.9 days.

short-term needs.[104]

A review of the average weekly stock-to-shipment ratios recorded during the GMP's first five years reveals that the quarterly average seldom fell below a value of 5.0. As such, the inventory on hand at the close of any given week generally exceeded that required in the next by a factor of at least five. Owing to its relative nature, these ratios are heavily influenced by the amount of time that grain spends in inventory. Notwithstanding the anomaly of the 2002-03 crop year, when reduced grain sales prompted a build-up in primary-elevator stocks that greatly inflated the ratio, by the 2007-08 crop year the annual average had declined by 27.4%, to 4.5 from 6.2.[105]

Figure 51: Primary Elevators – Stock-to-Shipment Ratio

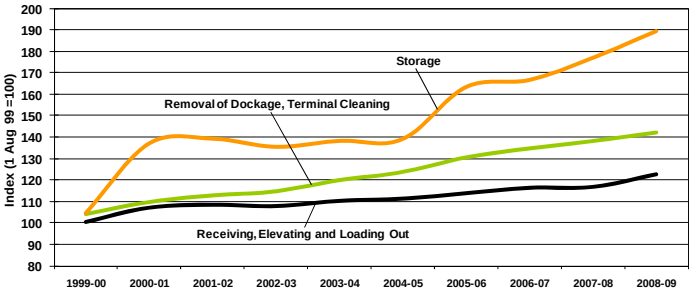


In a reflection of the accelerating pace at which grain was being drawn into the primary elevator system, the 2008-09 crop year saw a progressive reduction in its quarterly stock-to-shipment ratios. These fell from a relative high of 4.2 in the first quarter to a low of 3.4 in the fourth. Moreover, they ranked among the lowest values observed during the GMP in recent years.[106] With this progressive reduction tracking below the values posted a year earlier, the annualized average fell to a new GMP low, descending to 3.9 from 4.5 the previous year. [See Table 3B-5 in Appendix 5.]

Average Handling Charges

The rates assessed by grain companies for a variety of primary elevator handling activities vary widely. These differences reflect not only the specific services offered – be it elevation, cleaning or storage – but the diversity of grains involved and the province in which the service was provided. Given the myriad of tariff rates, the GMP necessarily uses a composite price index to track the movement in these rates.[107]

Figure 52: Relative Change in Elevator Handling Charges



The per-tonne rates assessed by the grain companies for these various services are the primary drivers of corporate revenues. Comparatively, the per-tonne charge assessed for the receiving, elevating and loading out of grain is the most costly for producers. This in turn is followed by the charges levied for the removal of dockage (also referred to as terminal cleaning), as well as storage.

[104] It should be noted that the value of 1.0 constitutes a lower limit for the stock-to-shipment ratio as calculated during the GMP, because primary elevator shipments are actually constrained by the amount of grain held in inventory.

[105] The average weekly stock-to-shipment ratio reached a GMP record height of 7.1 in the 2002-03 crop year. Some of the quarterly values were even greater, with 8.8 having been observed in the crop year's third quarter.

[106] The lowest quarterly stock-to-shipment ratio observed during the GMP was 2.8, and was set in the first quarter of the 2004-05 crop year. The 2004-05 crop year also produced the lowest annualized average, with the ratio having fallen to 4.1 overall.

[107] For the purposes of the discussion presented here, price movement with respect to any particular handling activity is based on a composite index of nominal tariff rates.

The rates for all of these services have risen steadily since the beginning of the GMP. The lowest pace has been set by the tariff rates for receiving, elevating and loading out grain. Through to the end of the 2007-08 crop year, these rates had risen by 16.7%. During the 2008-09 crop year they increased by a further 4.9%, bringing the cumulative compounded increase for the last decade to 22.5%.[108]

The rates associated with the removal of dockage have increased at a somewhat faster pace over the course of the last ten crop years.[109] Through to the end of the 2007-08 crop year, these rates had already risen by 38.3%. For the 2008-09 crop year, they rose by another 2.9%. This resulted in the composite price index for dockage having increased by a compounded total of 42.3%during the GMP.

The most substantive rate escalation observed thus far has been with respect 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. Although these rates pulled back moderately in the 2002-03 crop year, increases were applied in each of the following five crop years. The 2008-09 crop year witnessed a further escalation in storage costs, with rates having risen by about 7.1%. As a result, storage charges at the end of the 2008-09 crop year were 89.4% higher than at the beginning of the GMP. [See Table 3B-6 in Appendix 5.]

3.3 Rail Operations *[Measurement Subseries 3C]*

The volume of grain moved in covered hopper cars during the 2008-09 crop year posted a year-over-year increase of 21.2%, rising to a GMP record of 26.8 million tonnes from 22.1 million tonnes the year before.[110] Much of the additional volume came from Saskatchewan, where rail shipments increased by 2.8 million tonnes, or 16.6%, to 13.2 million tonnes. An additional 1.0 million tonnes were shipped from points in Alberta, where total volume grew by 10.9% to 9.9 million tonnes. This was complemented by another 1.0 million tonnes of additional traffic from Manitoba, which although having posted a 42.5% increase in volume, generated total shipments of 3.5 million tonnes. Detracting from these gains was British Columbia, which registered a 46.0% decrease in volume and produced just over 0.1 million tonnes in hopper-car shipments.

This overall increase in volume was not, however, distributed evenly between the four ports in western Canada. In fact, much of the additional traffic found its way to the ports of Vancouver and Thunder Bay rather than to Prince Rupert and Churchill. Movements to Vancouver climbed by 27.9%, to 15.2 million tonnes from 11.9 million tonnes a year earlier, giving it a 56.7% share of the total volume. This proved to be the greatest volume yet directed to the port during the GMP. Accounting for a much lesser 17.5% share, Prince Rupert saw its volume increase by a more modest 5.1%, climbing to 4.7 million tonnes from 4.5 million tonnes the year before.[111] Together, these two ports received a combined 74.2% of the grain moved by rail to export position, a modest gain over the 73.9% share secured the year before.

As was the case with Vancouver, the tonnage directed to Thunder Bay increased substantially in the 2008-09 crop year. Total hopper-car shipments to this gateway increased by 26.1%, rising to 6.5 million tonnes from 5.1 million tonnes a year earlier. Moreover, this proved to be the first significant upturn in volume for the port in three years. The same, however, could not be said for the port of Churchill, which posted a year-over-year reduction of 32.9%, with rail shipments falling to 0.4 million tonnes from 0.6 million tonnes. [See Tables 3C-1, 3C-2, and 3C-3 in Appendix 5.]

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[108] By way of comparison, the Industrial Product Price Index increased by 12.2% during this period. However, it should be noted that the IPPI fell by 7.2% in the 2008-09 crop year. The cumulative increase to the end of the 2007-08 crop year had been 20.9%.

[109] Charges for the removal of dockage (terminal cleaning) fall under the provisions of Licensed Primary Elevator Tariffs and are assessed at the time producers deliver their grain.

[110] The overall volume of grain that moved by rail to western Canadian export positions in the 2008-09 crop year contrasts with the 27.3 million tonnes mentioned in Section 1.2. This latter value is a broader measurement that includes grain movements in boxcars, trailers and containers. For more consistent comparisons, the values presented here (and in Tables 3C-1 through 3C-3), deal exclusively with that portion moving in covered hopper cars through the terminal elevator system only. Such adjustments typically account for a reduction of less than 5.0% from the broader tonnage value.

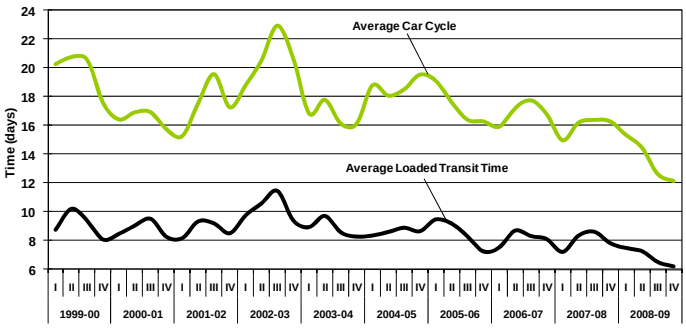
[111] Railway shipments to Prince Rupert reached a record 4.9 million tonnes during the GMP in the 2006-07 crop year. The volumes handled in both the 2007-08 and 2008-09 crop years fell short of this pinnacle.

Car Cycles

In the context of the GHTS, the car cycle measures the average amount of time taken by the railways in delivering a load of grain to a designated port in western Canada, and then returning the empty railcar back to the prairies for reloading. The railways' average car cycle for the 2008-09 crop year fell by 15.3%, to 13.4 days from 15.9 days a year earlier.[112] This proved to be the lowest yet recorded during the GMP.[113]

The onset of winter often has an adverse impact on railway car cycles, with the average typically rising in the second and third quarters. However, such was not the case in the 2008-09 crop year. The quarterly average declined steadily, descending from a first-quarter high of 15.3 days to a record GMP low of 12.1 days in the fourth. This betterment had powerful sway over the results for the crop year as a whole.

Figure 53: Average Railway Car Cycle



Without exception, improvements were noted in each of the operating corridors. The Prince Rupert corridor posted the largest of these with a decrease of 17.5%, reducing its average to 11.8 days from 14.3 days a year earlier. The Vancouver corridor posted the next largest reduction, with its overall average falling by 17.4% to 14.1 days. An 11.3% improvement in the Thunder Bay corridor resulted in a 13.7-day average versus 15.4 days twelve months before. [See Table 3C-4 in Appendix 5.]

These improvements extended equally to the car cycle's loaded and empty transit time components with loaded transit times falling by 14.4%, to an average of 6.8 days from 8.0 days and average empty transit time improving 16.2%, falling to 6.6 days from 7.9 days.

These results were driven by substantive improvements on the part of both railways with CN posting a 16.7% reduction in its overall car cycle while CP's fell 13.7%. The results proved somewhat more mixed regarding each carrier's loaded and empty transit times. As regards their loaded transit times, the CN average fell by 18.6% while the CP average fell by a more moderate 8.0%. The differential proved somewhat narrower for empty-transit-time averages, with CN posting a 14.3% reduction against an 18.3% decrease for CP.

Much the same kind of improvement was in evidence for the movement of non-special as well as special crops. The average car cycle for non-special crops fell by 15.4% to 13.3 days in the 2008-09 crop year. This value proved to be 14.7% less than the 15.6-day average tied to special crops. On the whole, these results continue to suggest that structural differences in the service provided by the railways, such as smaller block size and less centralized unloading operations is experienced in the movement of special crops. This difference was particularly evident in the Vancouver corridor, where the average cycle on non-special crops totalled 13.9 days in comparison to a 15.5-day average on special-crop movements. The differential was even wider in the Thunder Bay corridor, where a 13.6-day average on non-special crop movements easily outpaced the 16.1-day average for special crops. [See Tables 3C-5 and 3C-6 in Appendix 5.]

These structural differences were equally evident in the loaded and empty transit times of both groups. In the case of loaded transit times, there was a 1.1-day advantage for non-special crop movements, which averaged

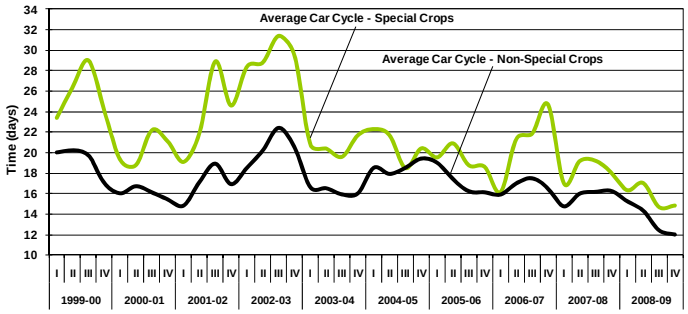
[112] Western Canada's average car cycle of 13.4 days is derived from 197,625 movements: 95,164 in the Vancouver corridor; 57,309 in the Thunder Bay corridor; and 45,152 in the Prince Rupert corridor. The relative weighting accorded these movements is dependent on the number of acceptable records received, which can vary from period to period. The statistics presented here are intended to reveal general trends respecting the amount of time taken by covered hopper cars in moving grain throughout western Canada.

[113] The previous record was set in the 2007-08 crop year, when the annualized average car cycle reached a low of 15.9 days.

6.8 days versus 7.9 days for special crops. The advantage on empty transit times also proved to be 1.1 days, with non-special crops posting a 6.5-day average in comparison to 7.6 days for special crops.

Typically, the demand for railway carrying capacity surges at harvest time, with a strain being placed on the GHTS as a whole. Moreover, grain must move in conjunction with a host of other commodities all requiring access to that same carrying capacity. This, along with the onset of winter, normally results in the elongation of the car cycle in the second and third quarters.

Figure 54: Average Car Cycle – Special and Non-Special Crops

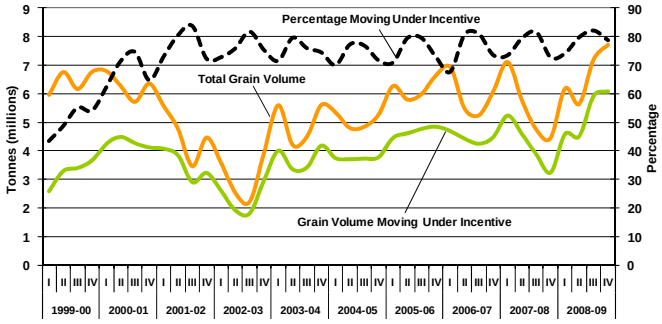


The improvements noted here, however, run counter to this pattern. While a continued focus on unit train operations serves to explain some of this improvement, the basic cause for this appears to have been the benefit from grain not having to compete for railway capacity to the same degree as it had in past crop years. This was due to the global financial crisis that began to take hold in the late summer of 2008, which caused overall railway volumes to plummet in the 2008-09 crop year. Due to the widespread decline in traffic levels, both CN and CP were able to direct a larger share of their carrying capacity towards the movement of those commodities that remained. Export grain shipments, which rose substantially in the months that followed, proved to be an immediate beneficiary.

While such improvements are commendable, the consistency with which grain moves from a country elevator to a port terminal is of critical importance. One of the most common concerns voiced by shippers relates to the inconsistency of railway service. It is difficult for grain shippers to develop logistics plans built around a particular average loaded transit time, say six days, when the actual can vary widely from this standard.

While the loaded transit time has shown a 25.5% improvement over the course of the last decade, and more particularly the last three crop years, falling from an average of 9.2 days in the 1999-2000 crop year to an average of 6.8 days in the 2008-09 crop year, the variability revealed the underlying data of the measures has not diminished nearly as much. A separate analysis undertaken by the Monitor showed only a 14.8% reduction in the variability of the underlying data distribution.[114] This means that individual loaded transit times still vary significantly from the overall average. This remains a continuing concern of shippers with respect to the consistency of service they receive from the railways. It remains to be seen whether the performance strides made by the railways in the 2008-09 crop year can be materially improved upon over the longer term.

Figure 55: Railway Volume Moving Under Incentive



Multiple-Car Blocks

During the course of the 2008-09 crop year, the railways handled a total of 21.1 million tonnes of grain under the incentive programs that they use to encourage shippers to move grain in multiple-car blocks. This represented an increase of 24.7% over the 16.9 million tonnes handled under these programs a year earlier. While this gain was reflective of the overall increase in traffic volume, it also marked the first instance in the

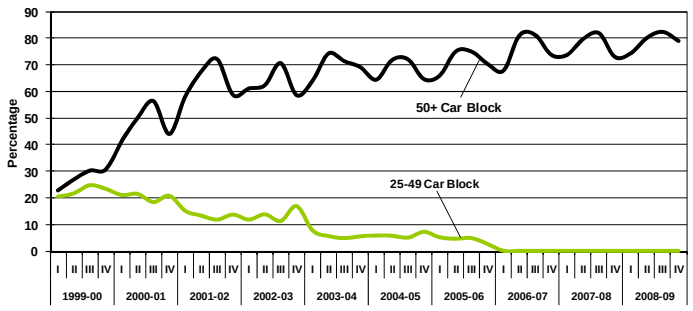
[114] This analysis used the coefficient of variation (COV) to gauge the variability in the underlying distributions. Between the 1999-2000 and 2008-09 crop years, the COV was observed to have declined from a value of 0.61 to 0.52; an improvement of 14.8%.

history of the GMP where the volume moving under the railways' incentive programs exceeded the 20-million-tonne threshold.

Although the grain supply has a broad influence over the volumes handled under these programs, as was demonstrated by the droughts in both the 2001-02 and 2002-03 crop years, the monetary incentives put forward by the railways have also been shown to have a great amount of influence as well.

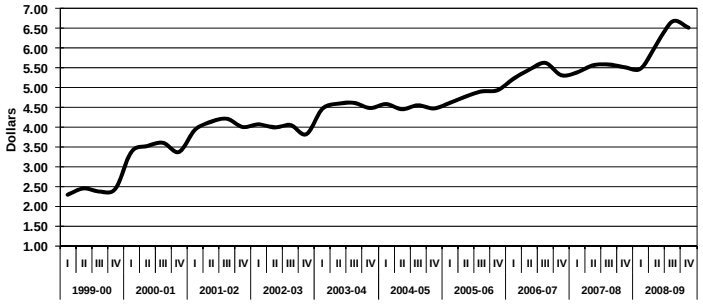
From the beginning of the GMP, it has been clear that the largest block sizes were the most popular with grain shippers. This stems simply from the fact that they provide the deepest monetary discounts, allowing the grain companies to realize the greatest financial returns. Data gathered through to the end of the 2003-04 crop year showed that movements in blocks of 50-99 cars proved to be the most expansive, going from a 20.2% share in the 1999-2000 crop year to an estimated 45.1% by the end of the 2003-04 crop year. At the same time, movements in blocks of 100 or more railcars went from 7.6% of the total to 24.0%. In the face of these advances, movements in blocks of 25-49 railcars began to decline, falling from 22.6% of the total to just 6.0%. Moreover, both railways promoted this shift through a systematic reduction in the incentives they offered on smaller shipments.[115]

Figure 56: Composition of Multiple-Car Block Incentive Movements



Even with the elimination of the small-block incentives, the overall proportion of grain moving under these incentive programs has remained largely unchanged. In the 2003-04 crop year, an estimated 75.1% of the grain moved by rail earned an incentive discount. By the close of the 2008-09 crop year, this proportion had increased only marginally to 78.9%. The largest gains were made in the first three years of the GMP, when this share rose from an estimated 50.4% in the base year to 76.9% in the 2001-02 crop year.[116] Although the quarterly values show more seasonal variability, the data suggests that the proportion of grain moving under these programs has largely stabilized, fluctuating within a comparatively narrow band from 75-80%. [See Table 3C-8 in Appendix 5.]

Figure 57: Average Incentive Discount Earned (dollars per tonne)



However, owing to the restructuring of the incentive discounts offered by both CN and CP in the 2004-05 crop year, the Monitor has been unable to examine block shipments according to the structure that existed at the outset of the GMP. The elimination or redefinition of the car blocks used by both carriers has effectively eliminated the possibility of direct comparisons. Rather, the Monitor can only provide for two generic comparisons: incentive shipments in blocks of less than 50 cars; and those in blocks of 50 or more cars.

Since the GMP began, the share of the total volume moving in blocks of 50 or more cars has climbed fairly steadily, from 27.8% to 78.9% in the 2008-

[115] CN eliminated its $1.00-per-tonne discount on shipments in blocks of 25-49 railcars at the beginning of the 2003-04 crop year. Although CP reduced its incentive to $0.50 per tonne at the same time, it ultimately did away with these discounts three years later, at the commencement of the 2006-07 crop year.

[116] Annualized proportions temper the observed variation in quarterly values, which ranged from a low of 43.6% in first quarter of the 1999-2000 crop year, to a height of 83.9% in the third quarter of the 2001-02 crop year.

09 crop year. Although increases in the incentive discounts payable on these larger-block shipments largely fuelled this movement, there can be little doubt that a simultaneous rollback in the discounts applicable on smaller-block shipments also had an effect. Until these lesser discounts were eliminated entirely in the 2006-07 crop year, the proportion of shipments earning them had been falling steadily from an estimated 22.6% share in the first year of the GMP to just 4.2% in the 2005-06 crop year.

The annual value of the discounts earned by grain shippers – estimated as a gross savings in railway freight charges – has more than quadrupled in the last decade, climbing to an estimated $132.0 million from $31.1 million. Yet only $19.6 million, or 19.4%, of this $100.9-million increase was derived from the additional volume of grain shipped under these programs. The majority, $81.3 million, came from the migration towards movements in larger car blocks and the railways' application of increasingly larger per-tonne discounts.

The average discount earned underscores the incremental gains realized by the grain companies. Between the 1999-2000 and 2007-08 crop years, the average discount earned under these programs climbed to an estimated annualized average of $5.51 per tonne from $2.40 per tonne.[117] The 2008-09 crop year saw this average gain a further 13.4%, climbing to a record $6.25 per tonne. Although this increase reflects a continued growth in the proportion of movements that went in blocks of 50 or more cars, much of the gain was driven by a $1.00-per-tonne increase in the monetary discounts accorded to these larger movements, which are discussed more fully later in this section. [See Table 3C-9 in Appendix 5.]

Traffic Density

A broad indicator of railway efficiency is traffic density. With a quarterly average of 373.4 originated tonnes per route-mile, overall density in the 2008-09 crop year was 23.2% greater than the 303.1 tonnes per route-mile observed a year earlier. Moreover, this value constituted a new record during the GMP, rising 13.0% above the 330.3-tonnes-per-route-mile average set in the first year of the GMP.[118]

The limited transformation of the railway network over the past decade has largely sensitized this indicator to changes in traffic volume.[119] This can best be seen when comparing quarterly changes in traffic density with that of grain volume. The patterns are almost indistinguishable. For this reason, any examination of traffic density, whether it be the differences between carrier classes or railway line classes, volume-related changes are key drivers.

When examining traffic density by carrier

Figure 58: Relative Change in Traffic Density and Grain Volume

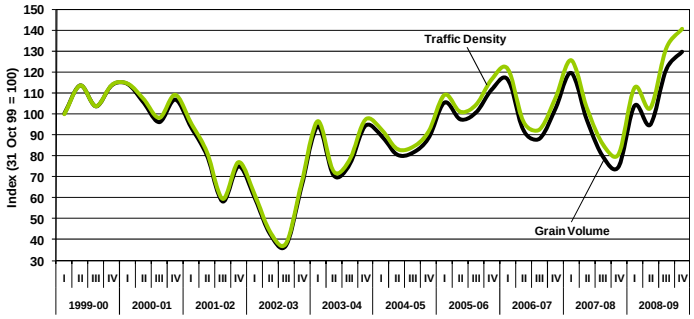
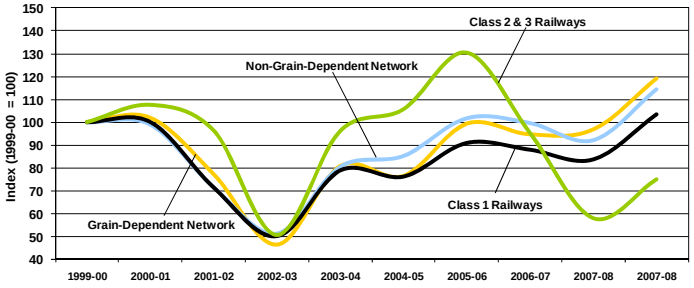


Figure 59: Relative Change in Railway Traffic Density



[117] The estimated discount per tonne deals exclusively with incentive movements to the four ports located in western Canada.

[118] Traffic density is determined by relating grain volumes for a specific period of time to the number of route-miles comprised within the western Canadian railway network at the end of that same period. Although year-over-year measurements are comparable, they cannot be directly gauged against quarterly measurements. For this reason, an average of the year's quarterly values is used as a substitute. The previous record average of 330.5 tonnes per route-mile was set in the 2005-06 crop year, and were only marginally greater than that benchmarked in the first year of the GMP.

[119] With traffic volume held constant, the resultant effect of all changes to railway infrastructure during the GMP has been an 8.7% improvement in traffic density.

class, a greater degree of volatility can be seen with respect to the Class 2 and 3 carriers as opposed to their Class 1 counterparts. Initially, this largely reflected the more significant underlying changes to the Class 2 and 3 carriers' infrastructures, be it through sale or abandonment. Although this is still true, the virtual halving of the regional and shortline network has left the measure more sensitive to changes in volume. Even so, both groups saw a significant volume-related increase in traffic density during the 2008-09 crop year. Class 1 carrier's densities rose by 23.5% to an average of 369.4 tonnes per route-mile, while Class 2 and 3 carriers rose by 29.5% to an average of 80.9 tonnes per route-mile.

Such fluctuations are largely tempered if the networks are less prone to continual redefinition, as is the case when the densities of the grain-dependent and non-grain-dependent networks are compared. Through to the end of the 2003-04 crop year, the traffic densities of these lines moved largely in tandem. This arose not as a result of comparatively similar changes in either of the underlying infrastructures or traffic volumes, but because the decline in grain-dependent infrastructure tempered the impact of an even greater reduction in originated tonnage.

This was not the case in the 2004-05 crop year when a gain in volume for the non-grain-dependent network, coupled with a decline in that for the grain-dependent network, caused their traffic densities to begin moving in opposing directions. Notwithstanding the broader changes in tonnage that have since impacted both networks, a comparatively greater decline in both the number of elevators on, and mileage of the grain-dependent network has actually helped to strengthen its density values.

For the 2008-09 crop year, a 14.1% increase in volume, coupled with a 7.3% reduction in infrastructure, resulted in the traffic density of the grain-dependent network increasing by 23.2%, climbing to an average of 526.5 tonnes per route-mile from 427.5 tonnes per route-mile a year earlier. For the non-grain-dependent network, a 24.2% gain in volume coupled with a 0.1% decline in infrastructure yielded a 24.3% increase in density, which rose to an average of 334.8 tonnes per route-mile from 269.3 tonnes per route-mile a year earlier. [See Table 3C-10 in Appendix 5.]

Railway Freight Rates

As one of the reforms aimed at making the GHTS more commercial, competitive, and accountable, the federal government ended its long-standing policy of regulating maximum railway freight rates for the movement of grain in western Canada. Instead, it adopted a policy that provided the railways with greater latitude in pricing, but limited the overall revenues that they could derive from moving grain in western Canada.[120]

To achieve this, the railways chose a two-pronged approach that involved adjusting both their published single-car freight rates as well as the incentive discounts applicable on the movement of grain in multiple-car blocks. Although the revenue cap accorded both CN and CP greater freedom in setting freight rates, their pricing actions remained largely similar through to the end of the 2002-03 crop year.

As outlined in the Monitor's previous reports, both carriers broke with the practice of advancing largely parallel adjustments to their single-car freight rates at the beginning of the 2003-04 crop year. They also made the first substantive changes to the incentive discounts that they had been offering for movements in multiple-car blocks at that time.[121] Over the next four crop years, a process involving the setting of new rates at the beginning of the crop year followed by at least one adjustment in the second half emerged. Without doubt, this new process was aimed at maximizing the revenues that the carriers were entitled to receive under the revenue cap, with both CN and CP having become quite skilful in doing so.

[120] This "revenue cap" was set at a level 18% below the estimated grain revenues that would have been derived without the reform, and came into effect on 1 August 2000. The revenue cap has specific annual limits for both CN and CP, and a base was set under the Canada Transportation Act (2000) at a combined level of $710.9 million. Each year, the Canadian Transportation Agency adjusts these "base year" limits to reflect changes arising from inflation, the actual grain tonnage moved, and the average length of haul.

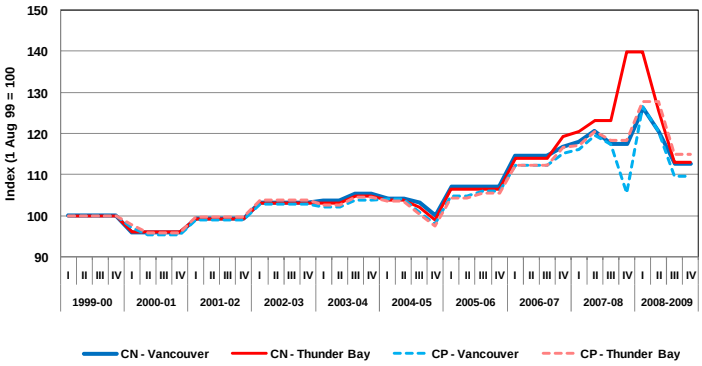
[121] As of 1 August 2000, shipments in blocks of 25-49 cars received a discount of $1.00 per tonne from the published tariff rate for a single-car movement; those in blocks of 50-99 cars, $4.00 per tonne; and those in blocks of 100 or more cars, $6.00 per tonne. In addition to the general discounts cited, the railways also provided incentive discounts for shippers who committed to move a multiple number of trainload lots (100 or more cars) during a specified period of time. Deemed generically by the Monitor as "shuttle services," these discounts provided an additional $0.50 per tonne when applied to movements of 100 or more railcars. CP also offered a further $0.50 per tonne discount when these involved trainload movements of 112 railcars.

The 2006-07 crop year brought even more changes to the prevailing rate structure. The most striking element in this was CN's decision to phase out its wholesale per-tonne rates, and to replace them with commodity-specific, per-car charges.[122] And while CP did not immediately follow suite with a similar change to its structure, both carriers increased their single-car rates substantially in the face of mounting fuel costs. In addition to finalizing the transition to per-car charges, the 2007-08 crop year brought about a renewed emphasis on differential pricing. The more substantive rate increases applied on shipments to Thunder Bay and Churchill, rather than those moving to the west coast, made this especially evident. Further, CN widened the advantage on single-car movements in favour of Prince Rupert to about 10% below that of Vancouver.[123]

A new element of complexity to the movement of grain was introduced with a move towards seasonal pricing, which tied rates to the prevailing demand for railway carrying capacity at various points in the crop year. At the outset of the 2008-09 crop year, CP initiated a general increase in its single-car rates, raising those in the Vancouver corridor by an average of 19.9%, while limiting the increase to 8.0% in the Thunder Bay corridor.[124] CN on the other hand left rates effectively unchanged in all corridors until the very end of the first quarter, when they increased the rates on westbound movements to Vancouver and Prince Rupert by an average of 7.3% and 9.8% respectively. On the surface, these increases appeared to be consistent with an 8.0% escalation in the Volume-Related Composite Price Index as previously determined by the Canadian Transportation Agency.[125]

The second quarter produced more changes to these rates. While rates for the movement of grain to Churchill remained unchanged, CN reduced most of its other rates towards the end of November 2008. Although largely tied to the carrier's seasonal pricing initiative, these adjustments proved more mixed than in the past, with reductions that ranged from about 6% on movements to the west coast to 10% on those directed to Thunder Bay. The carrier followed these initial adjustments with an increase of about 1% on movements to Vancouver in mid January 2009. However, the third quarter produced even further reductions, with the single car rates again reduced by about 6% on movements to the west coast, and by another 10% on those to Thunder Bay.

Figure 60: Railway Pricing – Vancouver and Thunder Bay Corridors



The adjustments advanced by CP in the second and third quarters produced equally striking reductions in the rate structure. In December 2008, CP rolled back its rates on movements to Vancouver by 5.0% while leaving those applicable on

[122] In adopting per-car rates, CN grouped these rates according to the average loading weights for commodities having similar densities. As a result, the per-car rates published for a given group differ from those published for another. The complexities introduced as a result of the adoption of this structure makes tracking all rate changes impractical. As a result, the GMP focuses its attention on the changes pertaining to the movement of wheat and those grains grouped with it.

[123] At the beginning of the GMP, single car rates for grain moving to Prince Rupert were about 13% greater than those applicable on movements to Vancouver. The actions taken by CN in reducing its rates in the Prince Rupert corridor over the course of the last several years denotes a significant change in its pricing strategy, and one that has resulted in a substantial increase in volume for this more northerly port.

[124] It is worth noting that towards the close of the 2007-08 crop year CP reduced its single-car rates to Vancouver by a factor of 10%, while leaving those applicable on movements to Thunder Bay unchanged. The escalation cited here with respect to movements of Vancouver-destined grain is amplified as a result of this earlier reduction. Had CP maintained these single-car rates at the levels prevailing towards the end of May 2008, the 19.9% increase noted on Vancouver shipments in the first quarter would have been contained to a more moderate 7.9%, and more in keeping with that advanced on movements to Thunder Bay.

[125] The revenue cap is adjusted annually for inflation by the Canadian Transportation Agency. For the 2008-09 crop year, the Agency had determined that the Volume-Related Composite Price Index used to accomplish this was to be increased by 8.0%. See Canadian Transportation Agency Decision Number 207-R-2008 dated 24 April 2008.

movements to Thunder Bay unchanged. In February 2009 CP initiated a reduction of 9.0% on its rates to Vancouver. This was followed by a 10.0% reduction on its rates to Thunder Bay in April 2009.

Since neither carrier introduced additional changes to their rate structures in the fourth quarter, this meant that the single-car freight rates in place at the end of the 2008-09 crop year were sharply lower than those observed at the opening. It must be remembered that both railways had moved to challenge the decision of the Canadian Transportation Agency concerning a one-time adjustment to the Volume-Related Composite Price Index for the 2007-08 crop year.[126] Moreover, during the appeal period both carriers chose not to incorporate the adjustment mandated by the Agency in their prevailing rate structures. This meant that both CN and CP ran the risk of again exceeding their revenue caps by a substantial margin if the court ultimately failed to find in its favour. When the Federal Court of Appeal sided with the Agency, the stage was set for a sharp decline of the carriers' rate structures in order to preclude another large overage in revenue.[127]

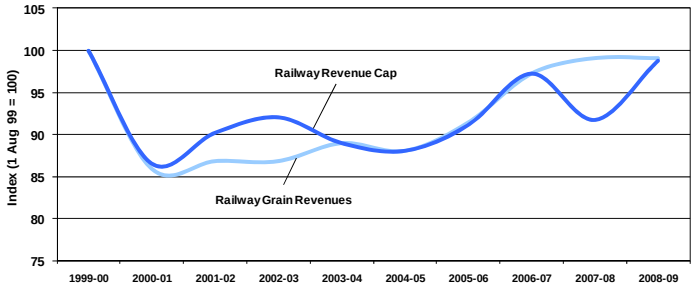
The reductions instituted by CN and CP in the second and third quarters effectively demonstrated the speed with which they moved to prevent this from occurring. By the end of the third quarter, CN had introduced year-to-date reductions of about 4.1% on the carrier's single-car rates to Vancouver; 2.3% on those to Prince Rupert; and 19.2% on those to Thunder Bay. The corrective actions undertaken by CP produced somewhat different results, with a 3.7% gain on single-car shipments to Vancouver, while those to Thunder Bay fell by 2.8%. [See Table 3C-11 in Appendix 5.]

In addition, both carriers moved to increase the monetary incentives they offered on multiple-car blocks. By the close of the second quarter, the discounts offered by CN on the block movement of 50-99 cars had increased from $3.00 per tonne to $4.00 per tonne. At the same time, the incentive tied to shipments of 100 or more cars was raised from $7.00 per tonne to $8.00 per tonne. In comparison, CP increased the discount it offered on movements in blocks of 56-111 cars from $4.00 per tonne to $5.00, and for shipments in blocks of 112 cars from $7.00 per tonne to $8.00 per tonne. [See Table 3C-12 in Appendix 5.]

The Revenue Cap

Under the federal government's revenue cap, the revenues that CN and CP are entitled to earn from the movement of regulated grain in any given crop year are not to exceed the stipulated maximums of $348.0 million and $362.9 million respectively and are indexed annually.[128] These amounts were set using an estimated annual movement of 12.4 million tonnes for CN and 13.9 million tonnes for CP, with average haulage distances of 1,045 miles and 897 miles respectively.[129]

Figure 61: Railway Revenue Cap Compliance



The revenue cap for each carrier, however, is not a static target. Each year, the limits attributable to CN and CP are adjusted to take into account changes in the actual volumes of grain handled, the average length of haul, and the effects of inflation on railway costs. With the exception of the inflationary component, these adjustments

[126] In essence, the Agency's decision reduced the maintenance allowances accorded to CN and CP under the revenue cap by a combined $72.2 million. Since neither carrier moved to amend their prevailing rates in the face of this, the Agency later determined that the carriers had exceeded their allowable revenues for the 2007-08 crop year by $59.8 million.

[127] Although the Federal Court of Appeal upheld the Agency's decision in November 2008, both CN and CP moved to appeal the matter to the Supreme Court of Canada. In April 2009, however, the Supreme Court dismissed the carriers' application for leave to appeal, thereby ending the railways' legal challenge.

[128] The stipulated maximums cited here are expressed in constant Canadian dollars.

[129] The values cited here in determining the revenue cap were drawn from railway traffic statistics for the 1998 calendar year.

are determined by the Canadian Transportation Agency following a detailed analysis of the traffic data submitted to it by CN and CP.[130] For the 2008-09 crop year, the revenue caps for CN was $479.1 million and for CP$486.0 million, or $965.1 million on a combined basis.[131] [See Table 3C-13 in Appendix 5.]

At the same time, the Agency determined that the statutory grain revenues for CN and CP amounted to $479.8 million and $484.8 million respectively, or $964.6 million on a combined basis. In this instance, CN's revenues proved to be $0.7 million more than allowed, while those of CP fell shy of its limit by $1.1 million. This meant that the industry's grain revenues came in $0.5 million below the maximum allowed. As a result, the Agency ordered CN to pay out its excess revenues, along with a 5% penalty, to the Western Grains Research Foundation.

The 2008-09 crop year's results marked a return to the era when the railways managed their revenues so as to come within a small fraction of what they were entitled to earn under the revenue cap. In fact, between the 2003-04 and 2006-07 crop years, this differential amounted to no more than 1.0% on a combined basis. The comparative margin by which these revenues missed their allowable limit proved to be the narrowest yet observed during the GMP, falling to just 0.05% from 7.90% a year earlier. [132] Within this broader context, it must be remembered that the previous crop year's overage had arisen as a result of the unique circumstances surrounding a one-time adjustment to the allowances accorded to the railways for hopper car maintenance.[133]

3.4 Terminal Elevator and Port Performance *[Measurement Subseries 3D]*

Port throughput, as measured by the volume of grain shipped from the terminal elevator and bulk loading facilities located at Canada's four western ports, totalled 25.6 million tonnes in the 2008-09 crop year.[134] This represented a 16.4% increase over the previous year's 22.0 million tonnes, and the largest throughput yet recorded during the GMP. As related in other sections of this report, this overall result was heavily influenced by significantly heightened activity in the second half, which served to counteract the sharp reduction in volume witnessed in the opening months of the 2008-09 crop year. [See Table 3D-1 in Appendix 5.]

Net increases were posted by three of the GHTS's four western ports. For the largest of these, Vancouver, total marine shipments climbed by 29.3%. This resulted in the port's throughput during the GMP rising to a record 14.3 million tonnes from 11.1 million tonnes a year earlier.[135] Moreover, this accounted for slightly more than half, 55.6%, of the GHTS's total throughput for the crop year. Vancouver saw a 5.5-percentage-point gain in share while Prince Rupert shipments increased by 1.4%, effectively remaining unchanged at 4.6 million tonnes. When combined, the volume passing through these two west coast ports accounted for 73.7% of the overall total. This marked the fourth consecutive year in which this share actually exceeded the 68.8% seen in the first year of the GMP. Moreover, it represented a new record during the GMP.

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130 A volume-related composite price index, which is used to adjust for inflation under the revenue cap regime, is determined annually by the Canadian Transportation Agency in advance of the crop year. For the 2008-09 crop year, the Agency determined the value of the volume-related composite price index to be 1.1493, which represented a year-over-year increase of 8.0%. See Canadian Transportation Agency Decision Number 207-R-2008 dated 24 April 2008.

131 See Canadian Transportation Agency Decision Number 529-R-2009 dated 31 December 2009.

132 Considered individually, CN's revenues stood 0.14% above its cap while those of CP were 0.24% less.

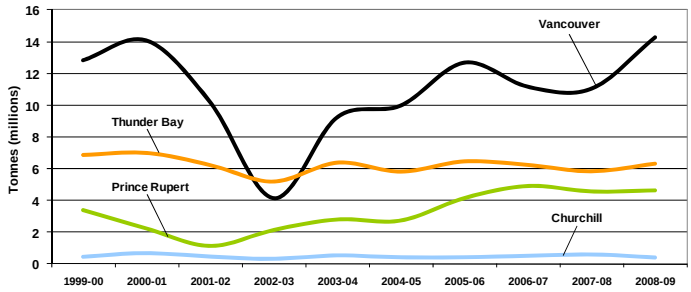
133 Questioning the legality of the Agency's approach to the determination of these allowances, both CN and CP chose to escalate their freight rates in the face of this pending one-time adjustment to their revenue caps for the 2007-08 crop year. Had an ensuing challenge to the Federal Court of Appeal been successful, the railways might have been able to sidestep a large portion of the $72.2-million reduction that was later mandated. Instead, the stage was set for the finding of a record $59.8 million in excess revenues.

134 Includes grains, oilseeds and special crops covered by the Canada Grain Act as reported by the Canadian Grain Commission. This may differ from the data based on origination as supplied by the railways.

135 The previous record had been established in the 2000-01 crop year, when Vancouver's throughput reached 14.0 million tonnes.

There was, of course, a corresponding impact on the shares accorded to the GHTS's other two ports. The combined share moving through the ports of Thunder Bay and Churchill declined to 26.3% from 29.1% a year earlier. While this remains consistent with the shares posted in the first few years of the GMP, it falls well below the benchmark 31.2% share set in the 1999-2000 crop year. At Thunder Bay, the dominant eastern gateway, throughput in the 2008-09 crop year increased by 8.4%, to 6.3 million tonnes from 5.8 million tonnes the year before. Churchill, the port with traditionally the lowest volume, saw its throughput fall by 28.4%, to 425,600 tonnes from 594,500 tonnes.

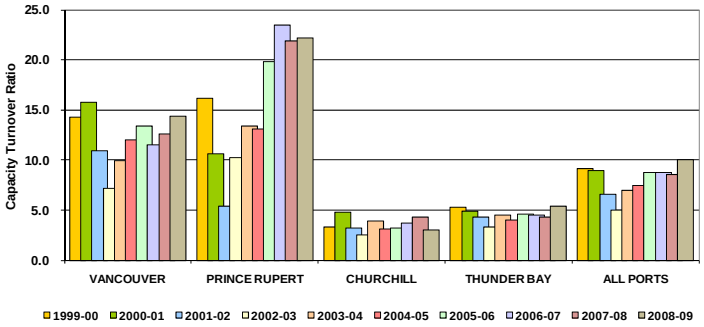
Figure 62: Western Canadian Ports – Grain Throughput



Capacity Turnover

With an increased volume passing through the ports in the 2008-09 crop year, the system's capacity-turnover ratio rose by 17.6%, to a record 10.0 turns from 8.5 turns a year earlier.[136] The ratio for the port of Thunder Bay showed the most significant increase, climbing by 25.6% to 5.4 turns from 4.3 turns the year before. Vancouver, with a gain of 14.3%, posted the next largest increase, with 14.4 turns versus 12.6 turns a year earlier. A more modest 1.4% gain was noted for Prince Rupert, which saw its ratio climb to 22.2 turns from 21.9 turns. Running counter to these results was Churchill, which saw its ratio fall by 30.2% in the face of reduced throughput, to 3.0 turns from 4.3 turns. [See Table 3D-2 in Appendix 5.]

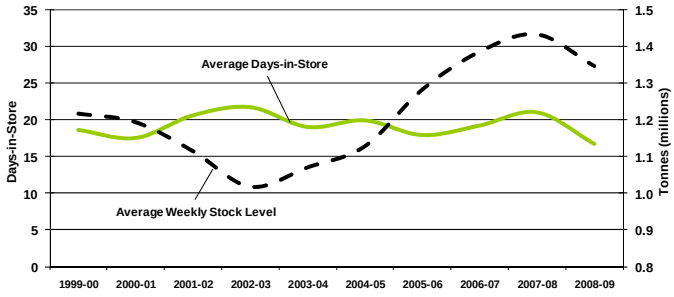
Figure 63: Average Terminal Elevator Capacity Turnover



Terminal Elevator Inventories

Over the course of the GMP, the amount of grain held in inventory at terminal elevators has not shown excessive sensitivity to changes in the system's overall handlings, seldom straying from about 6% of the total throughput. Despite a 16.4% increase in throughput for the 2008-09 crop year, the average weekly stock level fell by 6.0% to slightly over 1.3 million tonnes. This was due to a marked draw-down in inventories at Vancouver and Thunder Bay, which fell by 6.5% and 11.4% respectively. These decreases were tempered by increases at Prince Rupert and Churchill, where the average inventory rose by 0.5% and 33.9%

Figure 64: Terminal Elevators – Weekly Stock Level and Days-in-Store



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

respectively.

As in past years, wheat stocks again constituted the largest single commodity held in inventory, accounting for just under half of the total tonnage. Although wheat has increasingly been displaced by other commodities in recent years, its stocks rebounded in the 2008-09 crop year, rising by 22.1% to almost 0.7 million tonnes. Canola stocks were again the second largest, although they decreased by 41.5% to an average of 0.2 million tonnes. Durum and barley accounted for a further 0.3 million tonnes, while oats, peas and flaxseed rounded out the remaining 0.1 million tonnes. [See Table 3D-3 in Appendix 5.]

In conjunction with the decrease in terminal stocks came a decrease in the amount of time grain spent in inventory, with the overall average number of days-in-store falling by 20.5%, to a record GMP low of 16.7 days from 21.0 days the year before. Much of the impetus for this came from sharp reductions at Vancouver and Thunder Bay, which fell by 29.2% and 14.0% respectively. And while Prince Rupert's average also declined, it amounted to a reduction of just 4.1%. Running counter to this was Churchill, which posted an increase of 14.4%. [See Table 3D-4 in Appendix 5.]

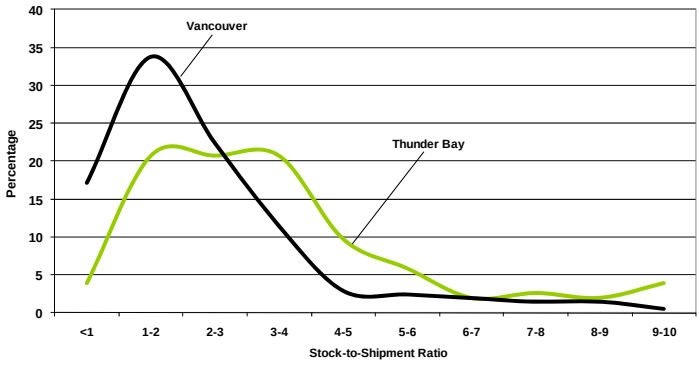
The quarterly average storage times produced in the second half of the 2008-09 crop year proved to be the lowest yet observed during the GMP. In the third quarter alone, the average fell to a record 13.3 days. The progressive increase in quarterly throughput constituted the principal force behind these results.

Some of the more pronounced year-over-year changes in the 2008-09 crop year are summarized in the table that follows:

	Days in Store	Change	Remarks
Terminal Ports			
Vancouver	12.1 days	Down 29.2%	
Thunder Bay	27.6 days.	Down 14.0%	Highest average number of days-in-store
Prince Rupert	11.7 days	Down 4.1%	Lowest average number of days-in-store
Churchill	23.0 days	Up 14.4%	
Notable Grains			
Canola	10.7 days	Down 58.8%	Lowest average number of days-in-store
Flaxseed	17.3 days	Down 54.6%	
Durum	15.8 days	Down 22.2%	
Wheat	16.9 days	Down 0.6%	
Barley	60.4 days	Up 145.5%	Highest average number of days-in-store
Oats	55.0 days	Up 33.2%	

Whether sufficient stocks were on hand to meet demand can best be gauged by the average weekly stock-to-shipment ratios. This ratio provides an indication of how terminal stock levels related to the volume of grain loaded onto ships during the course of any particular week.[137] For Vancouver, the average ratio on most grains stood comfortably above a value of 2.0. The exception to this proved to be canola, with an average ratio of 1.4. In light of the increased throughput for most grains, however, many of the average ratios fell in comparison to those posted a year earlier. The magnitude of these

Figure 65: Distribution of Weekly Stock-to-Shipment Ratios



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

reductions ranged from 2.9% in the case of durum, to a more substantial 65.2% for canola. In the case of those grains where the throughput fell, there was a general rise in the corresponding ratio. These included gains of 25.4% and 142.7% in the ratios for barley and oats respectively. [See Table 3D-5 in Appendix 5.]

In equal measure, the average ratios posted by Thunder Bay were all well above a value of 2.0. However, since the port's inventories fell, a number of the ratios also declined. These ranged from a 10.3% decline in the ratio for wheat, to a more substantive 36.7% reduction for that of flaxseed. At Prince Rupert, which maintains comparatively tighter stock levels, the results showed a 17.3% increase in the ratio on wheat.[138] Also posting a significant increase in its ratio for wheat was Churchill, which rose by 140.6%.

On the whole, these measures affirm that sufficient terminal stocks were maintained in the face of prevailing demand, although they also indicate that stock shortages were experienced periodically. While grade-based stock-to-shipment ratios show a greater degree of variability, they too indicate that stock levels were generally sufficient to meet demand throughout much of the crop year. [See Table 3D-6 in Appendix 5.]

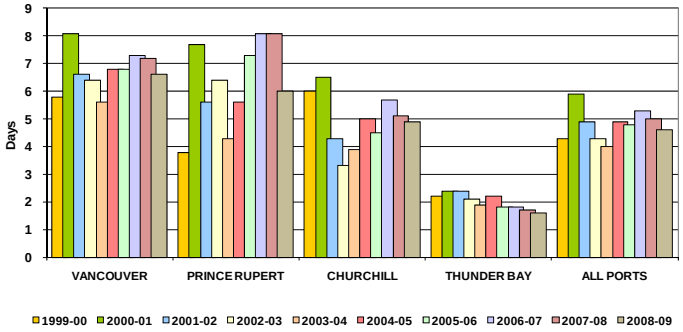
When examining the frequency with which weekly stock-to-shipment ratios fell below a value of 1.0, the ports of Vancouver and Thunder Bay can both be seen to have had more such instances in the 2008-09 crop year.[139] In the case of Vancouver this happened about 17.1% of the time, twice as often as the 8.5% occurrence rate posted a year earlier. At Thunder Bay such incidences proved rare, although the occurrence rate increased to 3.9% from zero a year earlier.

Port Operations

A total of 802 vessels called for grain at western Canadian ports during the 2008-09 crop year. This represented a 5.4% increase from the 761 ships that arrived for loading a year earlier. While this was consistent with the 16.4% increase in throughput, it also suggested that larger vessels were continuing to play a more prominent role in moving export grain. This has been most evident in the movement of grain from Prince Rupert, where 84.3% of the 89 ships that arrived took on loads in excess of 30,000 tonnes.[140]

Volume has become an important determinant in the amount of time spent by vessels in port. Over the course of the past decade, this average has moved generally higher. The quarterly average typically ranged from between 4.0 and 4.5 days in the first five years of the GMP. Another half day has been added to the span of more recent averages.[141] This was especially evident in the 2006-07 crop year when the delays occasioned by adverse weather conditions on the west coast pushed the quarterly average to a record height of 9.0 days in the third quarter, and elevated the overall average for the crop year to 5.3 days.

Figure 66: Average Vessel Time in Port



[138] Wheat is the only grain with sufficient consistency in shipments from Prince Rupert to allow for the calculation of stock-to-shipment ratios for each of the ten crop years covered by the GMP.

[139] A stock-to-shipment ratio of less than 1.0 does not mean that the port's terminal elevators were unable to meet vessel demand. Rather, it implies that existing grain inventories were insufficient, and that the shortfall would have to be covered using future railway deliveries. Direct-hit railway movements (shipments that do not enter into storage at the port terminal) can effectively accommodate demand while negating any real need for grain to be stored at all.

[140] Comparatively, only 66.2% of the ships loaded at Prince Rupert in the 2003-04 crop year took on loads in excess of 30,000 tonnes. This proportion has increased substantially over the course of the last five crop years, attaining a height of 86.2% in the 2007-08 crop year.

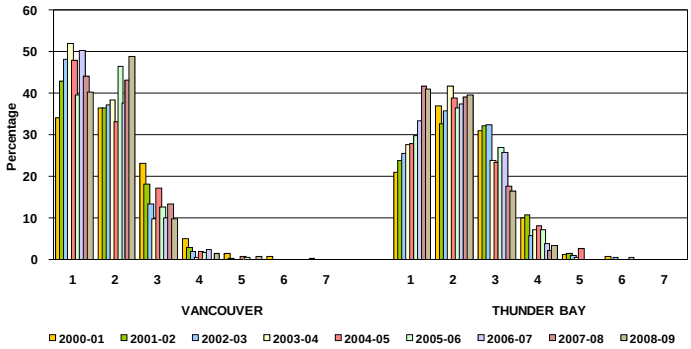
[141] During the first five years of the GMP, there were instances where the quarterly average actually exceeded 4.5 days. The most significant quarterly deviations from this value were observed in the 2000-01 crop year.

The average amount of time spent by vessels in port decreased by 8.0% in the 2008-09 crop year, falling to an average of 4.6 days. Much of this reduction was driven by a significant year-over-year improvement in the values posted during the first three quarters of the crop year. On the whole, improvements were noted with respect to the amount of time these vessels spent waiting to load, which decreased by 20.8% to an average of 1.9 days. The amount of time involved in their loading actually detracted from this somewhat, increasing by 3.8% to an average of 2.7 days.[142]

For the most part these results reflected improvements at each of the four ports in western Canada. The most significant improvements were posted on the west coast, with Prince Rupert realizing a 25.9% reduction in its annualized average, which fell to 6.0 days from 8.1 days a year earlier. The time spent by vessels in Vancouver fell by a noticeably lesser 8.3%, to an average of 6.6 days from 7.2 days.

The smallest reduction was reported by Churchill, where the average fell by 3.9%, to 4.9 days from 5.1 days the year before. This result was driven largely driven by a 20.0% decrease in the amount of time vessels spent loading at the port, which fell to an average of 2.8 days from 3.5 days a year earlier. Much of the improvement, however, was countered by a 31.3% increase in vessel waiting time, which climbed to 2.1 days from the preceding crop year's 1.6-day average.

Figure 67: Number of Berths per Vessel



With a 1.6-day average, the overall amount of time spent by vessels in Thunder Bay fell by 5.9% from that posted a year earlier. This resulted in the setting of yet another record low during the GMP. The improvement was wholly driven by a 8.3% reduction in the average loading time, which fell to 1.1 days in comparison to the previous year's 1.2-day average. The amount of time waiting to load remained unchanged at an average of 0.5 days. Thunder Bay's averages continue to represent the lowest of the four ports in western Canada. This stems chiefly from the greater regularity with which vessels move through the St. Lawrence Seaway, the port's ample storage capacity, and the limited delays incurred by vessels waiting to berth. [See Table 3D-7 in Appendix 5.]

In the face of the reduced averages noted above, the proportion of ships needing more than five days to clear remained largely unchanged, rising marginally to 30.9% from 29.6%. Even so, there were some substantial shifts in the proportions posted by each port. At Vancouver, 51.1% of the ships arriving in port stayed for more than five days, versus 46.4% a year earlier. Conversely, Prince Rupert saw this proportion decrease to 43.8% from 54.0%. For Thunder Bay, which traditionally sees very few vessels staying beyond five days, the proportion remained unchanged at just 1.0%. The most noteworthy shift was reported by Churchill, which saw the proportion of vessels in port for longer than five days fall to just 20.0% from 45.0% the year before. [See Table 3D-8 in Appendix 5.]

There were also modest changes in the comparative number of vessels needing to berth at more than one terminal during the 2008-09 crop year.[143] At Vancouver, this proportion rose to 59.9% from 56.1% a year earlier. It is worth noting that these recent values are somewhat greater than those observed three years before. One of the contributing factors in this increase can be traced back to the additional volumes of grain being loaded at the Alliance Grain Terminal, where the shallower berth often necessitated the "topping-up" of

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

[143] It should be noted that the number of berths each vessel may make prior to the assessment of any financial penalties is negotiated as part of a charter contract. Larger vessels may have terms permitting them to berth more frequently than smaller ships without incurring any such charges.

larger vessels at other terminals around the harbour. In comparison, the proportion of vessels needing more than one berthing at Thunder Bay rose to 59.1% from 58.4% a year earlier. This again proved to be well below the 75% level benchmarked in the early years of the GMP. [See Table 3D-9 in Appendix 5.]

Demurrage and Dispatch

Members of the WGEA and the CWB reported total vessel demurrage costs and dispatch earnings[144] to the Monitor.[145] This is intended to provide some indication of the effectiveness with which grain flowed through western Canadian ports. For the 2008-09 crop year, net earnings increased by 335.2% from what they had been a year earlier, rising to $26.4 million from $6.1 million.

This result was caused by by a 51.9% decrease in demurrage costs, which fell to $11.2 million from $23.3 million the year before.[146] The overall reduction was driven chiefly by a 64.6% decrease in the demurrage costs incurred along the Pacific Seaboard, which fell to $7.7 million from $21.7 million. However, this was partially contained by a 128.7% increase in the charges arising from the delay of vessels at Churchill, Thunder Bay, and along the St. Lawrence Seaway, which rose to $3.5 million from $1.5 million the year before.

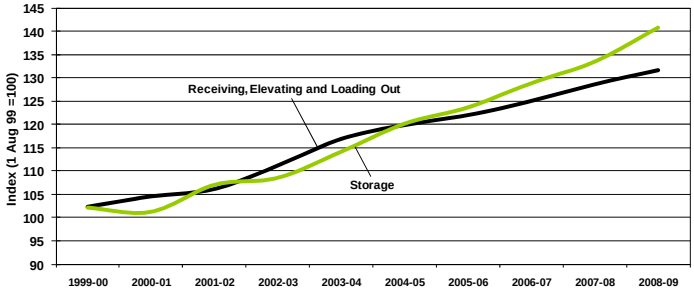
A 28.2% increase in total dispatch earnings, which rose to $37.6 million from $29.3 million a year earlier, added another $8.3 million in financial gains. It is worth noting that this constituted a record high for dispatch earnings during the GMP. Much of this gain was attributable to an improvement on the west coast, where dispatch earnings climbed by 46.2%, to $29.1 million from $19.9 million. Detracting from this was a 9.9% decrease in dispatch earnings for Churchill, Thunder Bay, and the St. Lawrence Seaway, which fell to $8.5 million from $9.4 million a year earlier. [See Table 3D-10 in Appendix 5.]

On the whole, the sharp reduction in demurrage costs coupled with the substantial rise in dispatch earnings suggests that a significant number of ships were able to be loaded in accordance with the lay days provided in their charters. The reduction in the amount of time spent by vessels in port provides strong corroborative evidence of this.

Average Handling Charges

As with the rates posted for primary elevator handling activities, the rates at terminal elevators for the receiving, elevating and loading out of grain are the terminal elevator system's most costly. Here too, an examination of price movement is best performed using a composite index. , At the end of the 2008-09 crop year these ranged from a low of about $8.08 per tonne for wheat delivered at Churchill, to a high of $14.35 for flaxseed shipped to Vancouver. The daily charge for storage also varied widely, spanning a scale that reached from a low of about $0.07 per tonne on the majority of commodities held at Churchill to a high of $0.14 per tonne on oats in inventory at Vancouver.

Figure 68: Relative Change in Terminal Handling Charges



With respect to the rates posted for the receiving, elevating and loading out of grain, increases were noted for virtually all terminal elevators in the 2008-09 crop year. Increases posted by Vancouver's terminal elevators ranged from 1.7% to 4.1%. At Prince Rupert, this spread went from zero to 8.9%. The rate adjustments put forward by Thunder Bay proved more

[144] Vessel demurrage and dispatch is contractually arranged between the shipping line and the shipper in a "charter party agreement". Demurrage accrues to the account of the shipper when vessel loading time exceeds the period contractually agreed to and dispatch accrues to the account of the shipping line when a vessel is loaded sooner than contractually arranged.

[145] Note should be made of the fact that the data – which is both un-audited and aggregated – pertains to vessel shipments made during each crop year and, as such, may vary from the figures presented in the financial statements of these organizations.

[146] The $23.3 million in demurrage cost incurred in the 2007-08 crop year denoted the highest recorded during the GMP.

mixed, and ranged from reductions of 0.9% to increases of 4.9%. Churchill, where these rates remained unchanged for a fifth consecutive year, proved to be the exception. The composite price index used by the Monitor shows that the cost of these services effectively rose by a further 2.3% in the last crop year, and that the combined value of all increases made since the beginning of the GMP had reached 31.6%. [See Table 3D-11 in Appendix 5.]

The charges for terminal storage have also risen since the beginning of the GMP. In the 2008-09 crop year, these rates rose by 5.4%, and brought the accumulated price increase over the last decade to 40.8%. Thunder Bay again reported the largest year-over-year gain, with an increase of 8.3%. The terminals at Vancouver and Prince Rupert followed with increases that averaged 7.1% and 5.3% respectively. The overall increase in the composite price index was tempered by the fact that Churchill chose to extend its existing storage rates for a fifth consecutive year.[147]

3.5 Summary Observations

As outlined in earlier editions of the Monitor's quarterly and annual reports, the supply chain model provides a useful framework by which to examine the speed with which grain moves through the GHTS. For the 2007-08 crop year, it was observed that this process required an average of 60.1 days; some 2.0 days more than had been the case a year earlier.

The overall amount of time involved in moving grain through the supply chain fell by 8.9 days in the 2008-09 crop year, to an average of 51.2 days. This result was shaped by significant reductions in each of the primary supply chain elements: country elevator storage time, which fell by 3.4 days; loaded railway transit time, which fell by 1.2 days; and terminal elevator storage time, which fell by 4.3 days. Moreover, this average proved to be the lowest yet witnessed during the GMP.

A few comments concerning the performance of the GHTS in the 2008-09 crop year are warranted:

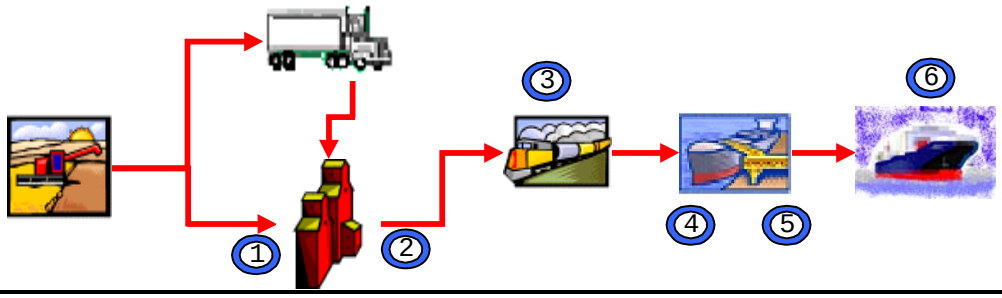
Firstly, a record harvest, of 60.4 million tonnes, combined with a smaller carry over of 5.6 million tonnes, provided for the second-largest potential movement of grain during the GMP of 66.0 million tonnes. An reduction of world demand brought on by good harvests in many countries and replenished world supplies, resulted in lower volumes passing through western Canadian ports in the first six months of the 2008-09 crop year.

- Secondly, the timing of the financial crisis coincided with the movement of the new crop leading to a reduction in the demand and price for many commodities. While grain was perhaps spared the worst of this, other sectors of the Canadian economy were not and as a consequence, railway traffic fell sharply during this period. From the vantage point of the GHTS, however, this proved advantageous as much as the freed capacity allowed the railways to readily accommodate the surge in grain volume that came in the third and fourth quarter. The volume handled by the GHTS in the second half of the crop year far surpassed that moved during any comparable period in the last decade and more than compensating for the weaknesses of the first half This resulted in the largest grain movement witnessed during the GMP.

- Finally, while the pace at which grain moved through the GHTS proved slower in the first half of the crop year, it accelerated rapidly, falling from an average of 60.3 days in the first quarter, to a record-setting 44.6 days in the fourth. Much of the improvement came from a reduction in the amount of time spent by grain in inventory, particularly at port terminals. Complementing this,, was an equally significant improvement in the railways' average loaded transit time. The GHTS's performance in the 2008-09 crop year marked its most productive during the GMP, and revealed how effective the system can be when all of its elements are working in closer harmony.

[147] It should be noted that these observations are based solely on those terminals that did not adopt a system of *escalating storage charges*. These figures should, therefore, be viewed as a lower estimate of posted rate increases. Five terminals – two at Thunder Bay and three along the west coast – posted tariffs based on a system of escalating storage charges, which define a series of incrementally higher rates as storage time increases. Without average days-in-store data for the terminals using such rates, it is not possible to calculate an accurate rate for incorporation into the wider port averages.

Table 1: The GHTS Supply Chain



	SUPPLY CHAIN ELEMENT	TABLE	1999-00	2004-05	2005-06	2006-07	2007-08	2008-09	SUPPLY CHAIN EFFECT
	SPEED RELATED								
2	Country Elevator – Average Days-in-Store	3B-4	41.7	29.5	30.1	30.7	31.1	27.7	▼
3	Average Railway Loaded Transit Time (days)	3C-4	9.2	8.7	8.6	8.2	8.0	6.8	▼
5	Terminal Elevator – Average Days-in-Store	3D-4	18.6	19.9	17.9	19.2	21.0	16.7	▼
	Average Total Days in GHTS		69.4	58.1	56.6	58.1	60.1	51.2	▼
	SERVICE / ASSET RELATED								
1	Average Country Elevator Capacity Turnover Ratio	3B-2	4.8	5.6	6.2	6.5	6.0	6.7	▲
4	Average Terminal Elevator Capacity Turnover Ratio	3D-2	9.1	7.5	8.7	8.3	8.5	10.0	▲
3	Average Railway Car Cycle (days)	3C-4	19.9	18.7	17.3	16.8	15.9	13.4	▼
6	Average Vessel Time in Port (days)	3D-7	4.3	4.9	4.8	5.3	5.0	4.6	▼

Section 4: Service Reliability

The true test of any logistics chain is its ability to provide for the timely delivery of product, as it is needed – whether it is raw materials, semi-processed goods, component parts, or finished products. This applies in equal measure to both industrial and consumer products, and is summarized by a widely used colloquialism within the logistics industry: "to deliver the right product, to the right customer, at the right time." The indicators that follow are largely used to determine whether grain is indeed moving through the system in a timely manner, and whether the right grain is in stock at port when a vessel calls for loading.

Highlights – 2008-09 Crop Year

Port Performance

- *Overall reliability reflected in:*
  - *Adequate terminal stock levels at the ports of Vancouver and Thunder Bay.*
    - *Stock-to-vessel requirement, and stock-to-shipment, ratios generally maintained at levels well above 2.0.*
- *Decreased inventories in the face of heightened grain volumes reflected in generally lower average weekly stock-to-vessel-requirements ratios.*
  - *Vancouver*
    - *Wheat – 3.2; down by 10.8% from last crop year.*
    - *Canola – 1.5; down by 60.5%.*
  - *Thunder Bay*
    - *Wheat – 4.5; down by 10.9% from last crop year.*
    - *Canola – 5.5; down by 33.8%.*
- *Stock-to-shipment ratios showed similar reductions.*
  - *Vancouver*
    - *CWB grains – 3.1; up by 6.5% from last crop year.*
    - *Non-CWB grains – 2.5; down by 29.7%.*
  - *Thunder Bay*
    - *CWB grains – 4.6; down by 10.9% from last crop year.*
    - *Non-CWB grains – 4.2; down by 25.6%.*
- *Terminal handling revenues increased by 15.4% to $369.2 million.*
  - *Vancouver revenues totalled $284.8 million.*
    - *Up by 19.3% from last crop year.*
  - *Thunder Bay revenues totalled $84.4 million.*
    - *Up by 4.0% from last crop year.*
- *CWB carrying costs decreased by 48.0% to $170.1 million.*
  - *Pacific Seaboard carrying costs totalled $124.9 million.*
    - *Up by 61.5% from last crop year.*
  - *Thunder Bay carrying costs totalled $45.2 million.*
    - *Up by 20.3% from last crop year.*

Indicator Series 4 – Service Reliability

Table	Indicator Description	Notes	BASE 1999-00	CURRRENT REPORTING PERIOD (1) 2007-08	2008-09	% VAR	
	Port Performance [Subseries 4A]						
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Wheat		3.1	3.6	3.2	-10.8%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Canola		2.5	3.7	1.5	-60.5%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Wheat		5.6	5.0	4.5	-10.9%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Canola		2.8	8.3	5.5	-33.8%	▼
4A-2	Avg. Weekly Stock-to-Vessel Requirements Ratio – Grade	(2)					
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – CWB Grains		3.5	2.9	3.1	6.5%	▲
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – Non-CWB Grains		3.6	3.6	2.5	-29.7%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – CWB Grains		4.6	5.2	4.6	-10.9%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – Non-CWB Grains		3.3	5.7	4.2	-25.6%	▼
4A-4	Terminal Handling Revenue ($millions) – Vancouver		$192.7	$238.7	$284.8	19.3%	▲
4A-4	Terminal Handling Revenue ($millions) – Thunder Bay		$82.1	$81.2	$84.4	4.0%	▲
4A-4	CWB Carrying Costs ($millions) – Pacific Seaboard		$63.3	$77.4	$124.9	61.5%	▲
4A-4	CWB Carrying Costs ($millions) – Thunder Bay		$31.3	$37.6	$45.2	20.3%	▲

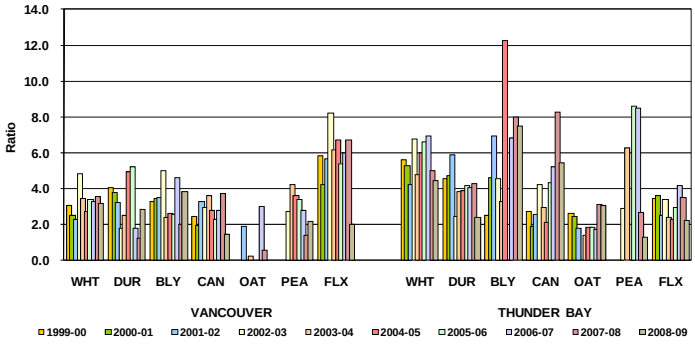
(1) – In order to provide for more direct comparisons, the values for the 1999-2000 through 2008-09 crop years are "as at" or cumulative to 31 July unless otherwise indicated.
(2) – Changes in the data cited cannot be depicted within the summary framework presented here. The reader is encouraged to consult the detailed data tables found in Appendix 5 as required.

4.1 Port Performance *[Measurement Subseries 4A]*

Average weekly stock-to-vessel requirement ratios are calculated for major grains at Vancouver and Thunder Bay using weekly reports of the tonnage held in inventory at terminal elevators, and the coming weeks' forecast of vessel arrivals. By comparing terminal stocks-in-store to the demand requirements of vessels scheduled to arrive, short-term supply can be gauged against short-term demand. By way of example, a ratio of 2.5 would indicate that 2.5 tonnes of grain was being held in inventory for each tonne of grain needed for loading onto vessels arriving in the next week.[148]

The average weekly stock-to-vessel requirements ratios for grains held in inventory at the port of Vancouver, the 2008-09 crop year saw some sharp year-over-year changes. Among CWB grains, the ratio posted for wheat fell by 10.8%, declining to 3.2 from 3.6 a year earlier. This stood against a 125.7% increase in the average ratio for durum, which rose to 2.9 from 1.3, and a 91.2% increase in that of barley, which climbed to 3.9 from 2.0 the year before.

Figure 69: Stock-to-Vessel Requirements Ratio



In the case of the non-CWB grains, all of the associated ratios were reported to have come in comfortably above the 1.0 threshold. The changes in these values proved equally mixed, however, with a gain of 52.7% for peas, and reductions of 60.5% for canola and 70.1% for flaxseed.

Year-over-year changes in the ratios for Thunder Bay moved broadly lower. The largest decline among the CWB grains was recorded in the ratio for durum, which fell by 44.2%, to 2.4 from 4.3 a year earlier. More

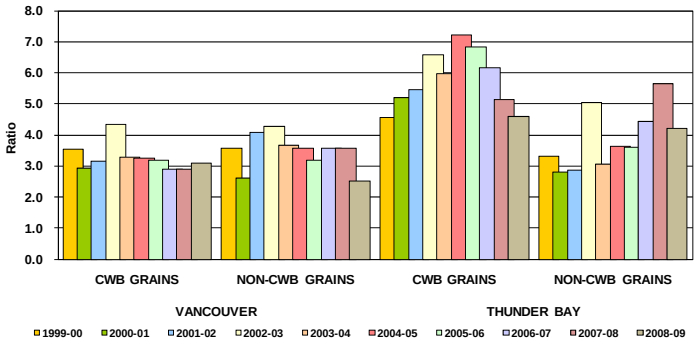
[148] Ratio values of one or more denote sufficient volume on hand to meet short-term demand. Upward or downward movements in this ratio are indicative of a relative change in short-term inventory levels. It should be noted that these ratios can display great variability owing to the uneven nature of grain flowing into, and through, the ports.

moderate reductions amounting to 10.9% on wheat and 6.0% on barley, produced ratios of 4.5 and 7.5 respectively. With respect to the non-CWB grains, the reductions proved generally more substantive. The most significant ratio reduction was posted by peas, which fell by 52.5% to 1.3. This was followed at a distance by flaxseed, canola and oats, with reductions of 35.6%, 33.8% and 1.8% respectively. The ratios for these commodities ranged from a low of 2.3 on flaxseed to a high of 5.5 on canola. [See Table 4A-1 in Appendix 5.]

Average weekly stock-to-vessel-requirement ratios by grade were calculated using a similar methodology. The variability in these weekly ratios is even more extreme and largely distorted by blending, as is necessary for the shipment of "Western Canada Wheat." Even so, comparatively few of the grade-specific averages fell below a value of 1.0. Those that did were largely confined to the Pacific Seaboard, and generally restricted to the lower grades of wheat and durum exported through its gateways. [See Table 4A-2 in Appendix 5.]

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

Figure 70: Stock-to-Shipment Ratio



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

The average stock-to-shipment ratio for CWB grains at Vancouver increased by 6.5% in the 2008-09 crop year, rising to 3.1 from 2.9 a year earlier. Running counter to this was a 29.7% reduction in the ratio for non-CWB grains, which fell to 2.5 from 3.6. At Thunder Bay, both ratios moved decidedly lower, with the average ratio for CWB grains falling by 10.9%, to 4.6 from 5.2, while the average for non-CWB grains fell by 25.6%, to 4.2 from 5.7. In all instances, these values indicated that ample stocks were generally on hand to meet the prevailing short-term demand. [See Table 4A-3 in Appendix 5.]

Terminal Revenues and CWB Carrying Costs

The GMP includes a provision for an annual reporting of terminal elevator revenues and CWB inventory carrying costs at terminal elevators. The WGEA and its members developed a method of reporting total terminal revenues using a number of key financial measures, and provided data for their terminals at Thunder Bay and Vancouver. The CWB provided a breakdown of their terminal costs using an aggregate for Pacific Seaboard terminals, in addition to that of Thunder Bay. It should be noted here, however, that differences in accounting practices make direct comparisons between total revenues and CWB costs difficult. The terminal revenue and cost data presented here is un-audited. [See Table 4A-4 in Appendix 5.]

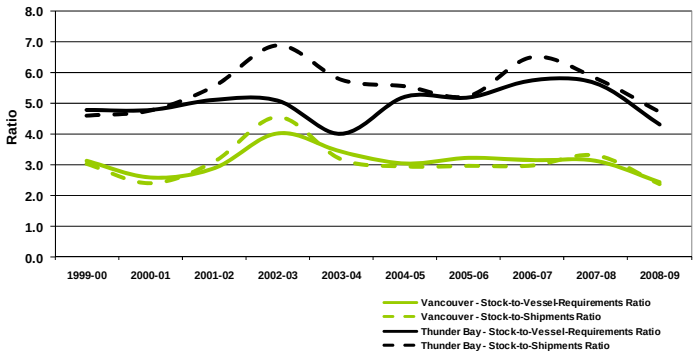
Total reported terminal revenues for the 2008-09 crop year increased by 19.3% at Vancouver, climbing to $284.8 million from $238.7 million. At Thunder Bay, total reported terminal revenues increased by 4.0%, to $84.4 million from $81.2 million.

Total CWB carrying costs along the Pacific Seaboard climbed substantially in the 2008-09 crop year, rising by 61.5%, to $124.9 million from $77.4 million the year before. The same was true for Thunder Bay, although carrying costs there increased by a notably lesser 20.3%, rising to $45.2 million from $37.6 million a year earlier.

4.2 Summary Observations

As a means of gauging the reliability of the GHTS, the GMP examines terminal stock levels against both the stated requirements and actual shipments of vessels loading at western Canadian ports. The resultant ratios provide an indication of whether or not sufficient quantities of grain were available at the terminals to meet the demand presented by the vessels loading during any particular week. Since the inception of the GMP it has been observed that these stocks generally exceed the immediate needs of these vessels by a comfortable margin. In fact, when examining the weighted ratios for both Vancouver and Thunder Bay it can be seen that three to five times the tonnage needed to accommodate the loading of these vessels was typically already in inventory. These values are well above those necessary to consider a delivery system as having met the minimum standards for reliability. In short, to the extent that the reliability of any supply chain can be gauged by its ability to actually deliver product at the time and place specified, the western Canadian GHTS can be deemed reliable.

Figure 71: Average Stock-to-Vessel Requirements and Stock-to-Shipments Ratios – Vancouver and Thunder Bay



For the GHTS as a whole, stock-to-vessel-requirement, and stock-to-shipment, ratios with values of about 1.0 might be considered optimal targets since they would denote an effective balance between supply and demand. While the higher averages observed during the GMP indicate that the GHTS has proven itself quite reliable in positioning grain for export, the ratios attributable to individual commodities and grades have also been noted to fall below this threshold for short periods of time. In most instances, these occurrences pinpoint the system's failure to deliver grain as required, whether as a result of an inadequate supply of inland grain, covered hopper cars or some other force. The irregular nature of these events suggests that they are not systemic problems, but rather the product of periodic breakdowns in the GHTS's various subsystems.

Despite some evidence implying that there has been an effort to reduce these ratios for certain grades of grain, the overall values remain comparatively high. In fact, there has been little meaningful change in the values posted since the beginning of the GMP. This strongly suggests that the grain industry, and more particularly those concerned with the operation of the terminal elevators, have focused their efforts on protecting the GHTS's overall reliability in delivering grain to port. While in itself positive, it must be noted that this is generally done at the expense of system efficiency since inventories are often maintained at levels well in excess of those required to meet prevailing demand.

Section 5: Producer Impact

One of the key objectives of the GMP rests in determining the producer impacts that stem from changes in the GHTS. The principal measure in this regard is the producer netback – an estimation of the financial return to producers after deduction of the "export basis."

The methodology employed in calculating these measures was developed following an extensive study conducted as a Supplemental Work Item during the GMP, and approved for incorporation into the mainstream indicators of the GMP by Transport Canada and Agriculture and Agri-Food Canada.

Highlights – 2008-09 Crop Year

Producer Netback and Sampling Methodology

- *Sampling methodology defined 43 grain-delivery stations drawn from 9 geographic areas across western Canada.*

Export Basis and Producer Netback – CWB Grains

- *Producer netback:*
  - *Decreases driven by significant price reductions.*
    - *Wheat – decreased 19.5% to $253.06 per tonne.*
    - *Durum – decreased 30.3% to $319.19 per tonne.*
- *Final Realized Price:*
  - *Sharp decreases attributable to better grain supplies but also the instability of commodity markets in the face of an unprecedented global financial crisis.*
    - *Wheat – decreased 16.3% to $311.36 per tonne.*
    - *Durum – decreased 26.2% to $378.37 per tonne.*
- *Export Basis:*
  - *Wheat – decreased 1.3% to $66.74 per tonne.*
  - *Durum – increased 3.7% to $87.57 per tonne.*
- *Average direct costs:*
  - *Weighted applicable freight increased 0.7% for wheat, and 11.0% for durum.*
  - *Trucking costs increased by 1.4%.*
  - *Primary elevation costs increased by 4.0% for wheat, and 3.3% for durum.*
  - *Gross CWB costs:*
    - *Wheat – decreased by 12.9%.*
    - *Durum –decreased by 4.3%.*
- *Total producer benefits:*
  - *Average trucking premiums:*
    - *Wheat – increased 11.2% to $6.17 per tonne.*
    - *Durum – increased 3.7% to $6.47 per tonne.*
  - *CWB transportation savings decreased by 3.4% to $1.70 per tonne.*

Export Basis and Producer Netback – Non-CWB Commodities

- *Producer netback:*
  - *Decreases driven by significant price reductions.*
    - *Canola – decreased 17.2% to $416.59 per tonne.*
    - *Yellow Peas – decreased 13.1% to $222.63 per tonne.*
- *Prices for non-CWB commodities decreased as a result of increased supplies and instability of commodity markets.*
  - *Canola – decreased 16.4% to $465.22 per tonne.*
  - *Yellow Peas – decreased 5.1% to $324.51 per tonne.*
- *Average western Canadian export basis for non-CWB commodities:*
  - *Canola –decreased 9.1% to $48.63 per tonne.*
  - *Yellow Peas – increased 18.8% to $101.57 per tonne.*

Producer Car Loading

- *Number of producer-loading sites decreased by 3.7% to 437.*
  - *Class 1 railways post reduction of 3.8% to 333 sites.*
  - *Shortline post reduction of 3.7% to 104 sites.*
- *Producer-car shipments increased 23.4% to 13,243 carloads.*
  - *Share of total hopper car movement increased to 4.5%.*
  - *Share of CWB movement increased to 7.3%.*

Indicator Series 5 – Producer Impact

Table	Indicator Description	Notes	BASE 1999-00	CURRRENT REPORTING PERIOD (1) 2007-08	2008-09	% VAR	
	Export Basis [Subseries 5A]						
	Manitoba East						
5A-1A	1 CWRS Wheat ($ per tonne)	(2)	$54.20	$66.91	$62.28	-6.9%	▼
5A-1B	1 CWA Durum ($ per tonne)	(2)	$60.29	$77.05	$80.73	4.8%	▲
5A-1C	1 Canada Canola ($ per tonne)	(2)	$61.58	$50.03	$52.83	5.6%	▲
5A-1D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.93	$84.56	$100.72	19.1%	▲
	Manitoba West						
5A-2A	1 CWRS Wheat ($ per tonne)	(2)	$57.80	$70.02	$68.58	-2.1%	▼
5A-2B	1 CWA Durum ($ per tonne)	(2)	$65.37	$81.59	$76.16	-6.7%	▼
5A-2C	1 Canada Canola ($ per tonne)	(2)	$58.67	$54.32	$55.04	1.3%	▲
5A-2D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.93	$84.56	$100.72	19.1%	▲
	Saskatchewan Northeast						
5A-3A	1 CWRS Wheat ($ per tonne)	(2)	$58.10	$73.02	$73.45	0.6%	–
5A-3B	1 CWA Durum ($ per tonne)	(2)	$68.31	$86.33	$94.12	9.0%	▲
5A-3C	1 Canada Canola ($ per tonne)	(2)	$54.38	$60.01	$56.41	-6.0%	▼
5A-3D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.93	$85.66	$101.62	18.6%	▲
	Saskatchewan Northwest						
5A-4A	1 CWRS Wheat ($ per tonne)	(2)	$56.42	$70.12	$68.73	-2.0%	▼
5A-4B	1 CWA Durum ($ per tonne)	(2)	$70.53	$88.48	$88.99	0.6%	–
5A-4C	1 Canada Canola ($ per tonne)	(2)	$50.88	$57.61	$49.61	-13.9%	▼
5A-4D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.84	$85.50	$101.65	18.9%	▲
	Saskatchewan Southeast						
5A-5A	1 CWRS Wheat ($ per tonne)	(2)	$59.40	$74.38	$73.32	-1.4%	▼
5A-5B	1 CWA Durum ($ per tonne)	(2)	$65.22	$83.56	$86.58	3.6%	▲
5A-5C	1 Canada Canola ($ per tonne)	(2)	$57.47	$55.17	$52.58	-4.7%	▼
5A-5D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.72	$85.84	$101.83	18.6%	▲
	Saskatchewan Southwest						
5A-6A	1 CWRS Wheat ($ per tonne)	(2)	$57.22	$68.65	$69.74	1.6%	▲
5A-6B	1 CWA Durum ($ per tonne)	(2)	$68.12	$84.46	$87.70	3.8%	▲
5A-6C	1 Canada Canola ($ per tonne)	(2)	$55.75	$51.83	$46.22	-10.8%	▼
5A-6D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.66	$85.42	$101.43	18.7%	▲
	Alberta North						
5A-7A	1 CWRS Wheat ($ per tonne)	(2)	$53.20	$63.12	$64.48	2.2%	▲
5A-7B	1 CWA Durum ($ per tonne)	(2)	$71.67	$88.70	$91.07	2.7%	▲
5A-7C	1 Canada Canola ($ per tonne)	(2)	$50.39	$47.31	$42.60	-10.0%	▼
5A-7D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.29	$85.51	$101.71	19.0%	▲
	Alberta South						
5A-8A	1 CWRS Wheat ($ per tonne)	(2)	$48.81	$59.97	$60.50	0.9%	–
5A-8B	1 CWA Durum ($ per tonne)	(2)	$66.06	$80.64	$82.45	2.2%	▲
5A-8C	1 Canada Canola ($ per tonne)	(2)	$48.07	$42.54	$34.25	-19.5%	▼
5A-8D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.93	$85.90	$101.88	18.6%	▲
	Peace River						
5A-9A	1 CWRS Wheat ($ per tonne)	(2)	$53.57	$68.08	$65.61	-3.6%	▼
5A-9B	1 CWA Durum ($ per tonne)	(2)	$71.00	$91.82	$91.06	-0.8%	–
5A-9C	1 Canada Canola ($ per tonne)	(2)	$52.14	$57.42	$46.85	-18.4%	▼
5A-9D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.93	$85.90	$101.80	18.5%	▲
	Western Canada						
5A-10A	1 CWRS Wheat ($ per tonne)	(2)	$54.58	$67.65	$66.74	-1.3%	▼
5A-10B	1 CWA Durum ($ per tonne)	(2)	$67.63	$84.44	$87.57	3.7%	▲
5A-10C	1 Canada Canola ($ per tonne)	(2)	$52.51	$53.47	$48.63	-9.1%	▼
5A-10D	Canadian Large Yellow Peas – No. 2 or Better ($ per tonne)	(2)	$54.76	$85.51	$101.57	18.8%	▲
	Producer Loading [Subseries 5B]						
5B-1	Producer Loading Sites (number) – Class 1 Carriers		415	346	333	-3.8%	▼
5B-1	Producer Loading Sites (number) – Class 2 and 3 Carriers		122	108	104	-3.7%	▼
5B-1	Producer Loading Sites (number) – All Carriers		537	454	437	-3.7%	▼
5B-2	Producer Car Shipments (number) – Covered Hopper Cars		3,441	10,729	13,243	23.4%	▲

(1) – In order to provide for more direct comparisons, the values for the 1999-2000 through 2008-09 crop years are "as at" or cumulative to 31 July unless otherwise indicated.

(2) – The export basis includes the following elements where applicable: freight (adjusted by the FAF and CFAR); trucking; elevation; dockage; weighing and inspection; CWB costs; trucking premiums; and CWB transportation savings.

5.1 Introduction to the Export Basis and Producer Netback *[Measurement Subseries 5A]*

One of the principal objectives set for the GMP by the Government of Canada involved gauging the overall logistics cost associated with moving prairie grain to market – what is commonly referred to as the "export basis" – and the resultant "netback" earned by producers.[149] By definition, both the export basis and the producer netback are location-specific calculations, and include charges for elevation, elevator cleaning and storage, and transportation (be it road, rail or marine). These charges also take into consideration any incentives or discounts that may be applicable.

With hundreds of delivery points scattered across the prairies, and four principal export gateways, the number of distinct origin-destination pairs that can be employed to move western Canadian grain exceeds 1,000.[150] Moreover, given the number of differing grains, grain grades, grain company service charges, and freight rates, the permutations inherent in calculating the export basis's and netbacks of individual producers takes on extraordinary dimensions. Such calculations can easily swell into hundreds of thousands of separate estimates. The only practical means by which to manage this undertaking rests in standardizing the estimates around a representative sample of grains, and grain stations.

In recognition of this, the GMP consciously limited these estimates to four specific grains: wheat; durum; canola; and peas.[151] Sampling techniques were used to select 43 separate grain stations as a representative sample in the calculation of the export basis and producer netback. These grain stations were then grouped into nine geographically-based areas, comprising between four and six grain stations each, namely: [152]

- Manitoba East;
- Manitoba West;
- Saskatchewan Northeast;
- Saskatchewan Northwest;
- Saskatchewan Southeast;
- Saskatchewan Southwest;
- Alberta North;
- Alberta South; and
- Peace River.

These areas are depicted in Figure 72. Within a larger context, these 43 grain stations currently encompass:[153]

- 35 stations with one or more high-throughput grain elevators;
- 19 stations with one or more conventional grain elevators;
- 8 stations that are local to the grain-dependent branch line railway network; and
- 2 stations that are directly served by regional and shortline railway carriers.

[149] In its basic form, producer netback equates to the residual left after subtracting the logistics cost from a grain's sale price.

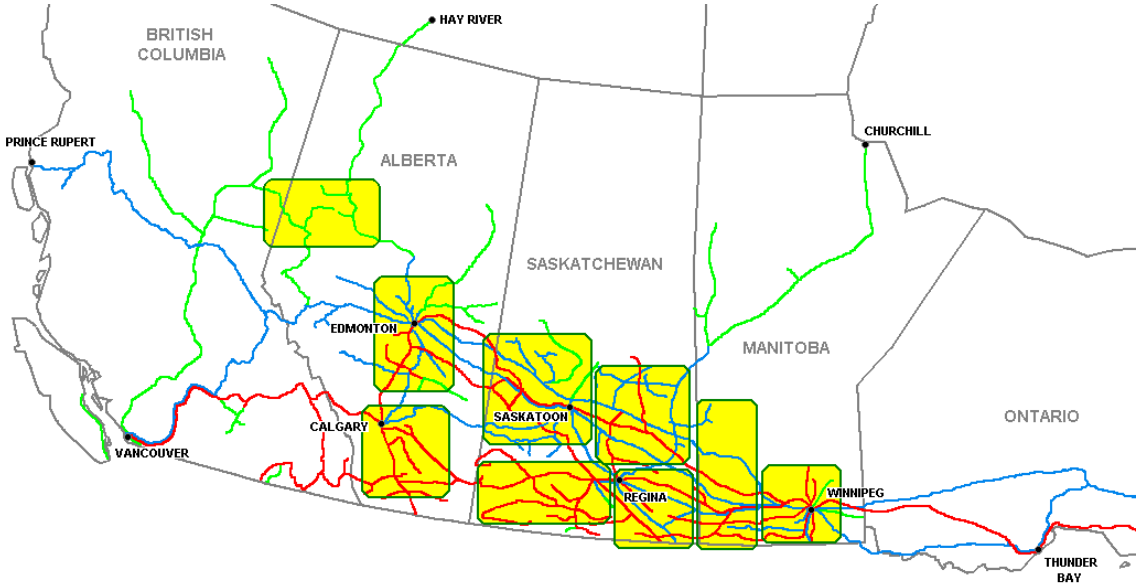
[150] Grain delivery points denote locations where at least one licensed primary elevator is situated. These do not include railway-designated producer-loading sites.

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

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

[153] Over the course of the GMP, changes in the elevator and railway infrastructure have altered the original station mix. At the outset, this mix encompassed 30 stations with one or more high-throughput grain elevators; 27 stations with one or more conventional grain elevators; 19 stations that were local to the grain-dependent branch line railway network; and 10 stations that were directly served by regional and shortline railway carriers.

Figure 72: Sampling Areas



Components of the Calculation

The means by which the Monitor calculates both the export basis and producer netback was developed through extensive consultation with GHTS stakeholders. Although a number of useful suggestions were made, and many subsequently acted upon, unanimous agreement on the use of a particular methodology ultimately proved elusive. The methodology adopted by the Monitor in calculating the values that follow, was approved for use in the GMP in the summer of 2002.[154]

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

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

[154] The methodology was approved by Transport Canada and Agriculture and Agri-Food Canada, and is presented in the Quorum Corporation study "*Report on the development and formulation of a methodology for the calculation of Producer Netback Measures*," May 2002. Interested readers can download the report from the Monitor's website (www.quorumcorp.net).

Considerations in the Calculation of the Export Basis and Producer Netback

ELEMENT	CWB GRAINS	NON-CWB COMMODITIES
Grain Price	The price for 1 Canada Western Red Spring Wheat and 1 Canada Western Amber Durum are the Final Realized Prices in-store at Vancouver or St. Lawrence as reported by the CWB in the Statistical Tables accompanying its Annual Report. Since Final Realized Prices are expressed net of CWB operating costs, and the Export Basis includes a separate provision for these costs, CWB Costs (net) are added back to produce Adjusted CWB Final Prices.	The price for 1 Canada Canola is the weighted average Vancouver cash price.[1] The weights used reflect monthly exports as recorded by the Canadian Grain Commission (CGC).[2] The price for Canadian Large Yellow Peas is based on the average weekly dealer closing price, track Vancouver, reported by Stat Publishing for the months of October and November.[3]
Weighted Applicable Freight	For every station in a given geographic area, the producer pays the lesser of either the single-car railway freight rate to Vancouver[4], or that of the corresponding rate to Thunder Bay plus the Freight Adjustment Factor (FAF).[5] The applicable freight rate depicted is a weighted average for the area as a whole based on the proportion of deliveries made to each of the stations included in the area.	
Churchill Freight Advantage Rebate and Churchill Storage Program	The Churchill Freight Advantage Rebate (CFAR) was introduced in the 2000-01 crop year as a mechanism to return the market sustainable freight advantage to farmers in the Churchill catchment area. Following the 2007-08 crop year, the CFAR was replaced with the Churchill Storage Program (CSP). The CSP is designed to pay producers to store grain so as to ensure that it is accessible during the Churchill shipping season (typically August through October). The 2008-09 crop year was a transitional year, with no payments having been made under the CSP.	
Trucking Costs	The trucking costs are based on the commercial short-haul trucking rates for an average haul of 40 miles as presented in Table 3A-1. The Monitor is aware that producers' trucking costs vary widely as a result of the type of equipment used, the use of owner-supplied versus carrier-supplied services, and the length of haul involved. Detailed information relating to the structure of these costs is not currently available, and has necessitated use of an assumed value.[6]	The trucking costs are based on the commercial short-haul trucking rates for an average haul of 40 miles as presented in Table 3A-1. The Monitor is aware that producers' trucking costs vary widely as a result of the type of equipment used, the use of owner-supplied versus carrier-supplied services, and the length of haul involved. Detailed information relating to the structure of these costs is not currently available, and has necessitated use of an assumed value.
Primary Elevation Costs	Primary elevator licensees are required to post primary elevation tariffs with the CGC at the beginning of each crop year, and at any time the rates for elevation, dockage (cleaning), storage, and related services change. The costs depicted for primary elevation are based on the applicable provincial average presented in Table 3B-6 as at August 1 of each crop year.	
Dockage Costs	Primary elevator licensees are required to post primary elevation tariffs with the CGC at the beginning of each crop year, and at any time the rates for elevation, dockage (cleaning), storage, and related services change. The costs depicted for dockage are based on the applicable provincial average presented in Table 3B-6 as at August 1 of each crop year.	
CGC Weighing and Inspection Costs	The costs of CGC weighing and inspection are assessed in various ways by the individual grain companies. Some include a provision for this in their primary elevation tariffs. Others deduct this amount directly from their cash tickets. The per-tonne average deduction from cash tickets used here has been adjusted in order to avoid an overlap with the tonnage already covered under the primary elevation tariffs, and a possible distortion of the export basis.	
CWB Costs	CWB Costs (gross) represent the per-tonne operating costs of each pool account at an in-store export port position, plus the apportioned value of its overall transportation savings.[7]	

ELEMENT	CWB GRAINS	NON-CWB COMMODITIES
Price Differential		For 1 Canada Canola, a price differential – or spread – is calculated between the weighted Vancouver cash price and the weighted average spot price in each of the nine regions. For yellow peas, a price differential is calculated using the average weekly dealer closing price, track Vancouver, and the average weekly grower bid closing price for the months of October and November. These differentials effectively represent the incorporated per-tonne cost of freight, elevation, storage and any other ancillary elements. As such, it encompasses a large portion of the Export Basis.
Canola Growers and Pulse Associations		All elevator deliveries of canola in Saskatchewan are subject to a $0.75 per tonne "check-off" for provincial canola association dues. The applicable "check-off" on deliveries made in Manitoba and Alberta are somewhat higher, amounting to $1.00 per tonne in both provinces.[8] Similarly, a levy of 0.5% is deducted for the Manitoba Pulse Growers Association on the delivery of yellow peas, while 1.0% is deducted for the Pulse Growers Associations in Saskatchewan and Alberta.[9]
Trucking Premiums	Grain companies report on the trucking premiums they pay to producers at each of the facilities identified in the sampling methodology.[10] The amounts depicted reflects the average per-tonne value of all premiums paid for the designated grade of wheat or durum within the reporting area.	Grain companies use their basis (the spread between their cash and the nearby futures price) as the mechanism to attract producer deliveries. Narrowing their basis, resulting in higher return to producers, is the signal that a company needs a commodity. Conversely a wide basis signals a lack of demand for the product. Some companies, however, offer premiums over and above their basis in order to attract delivery of some non-Board commodities. These premiums, illustrated as "trucking premiums", are therefore factored into the GMP export basis, and are presented as a producer benefit. When weighted based on the applicable tonnage, and factored in at a regional level, they are relatively small sums due to the limited number of companies using this mechanism.
CWB Transportation Savings	The CWB Transportation Savings is an apportioned per-tonne amount representing the total financial returns to the pool accounts as a result of grain-company tendering, freight and terminal rebates, and any penalties for non-performance.	
Other Deductions	Other deductions, such as drying charges, GST on services, etc., may also be applied to, and appear as an itemized entry on the cash ticket of, any grain delivery. No attempt is made to capture these deductions within the framework employed here.	Other deductions, such as drying charges, GST on services, etc., may also be applied to, and appear as an itemized entry on the cash ticket of, any grain delivery. No attempt is made to capture these deductions within the framework employed here.

1) – ICE Futures Canada (formerly the Winnipeg Commodity Exchange) collects Vancouver cash prices and spot prices at selected country elevator locations weekly.
2) – Forward contracting and deferred delivery provisions make it impossible to accurately weight the canola price data. Testing was done with weekly producer delivery data and with weekly and monthly export data. In consultation with the WCE, weighting based on monthly exports was deemed the most appropriate.
3) – Data provided by Stat Publishing. Using a "snapshot" period of two months during the fall, when pricing of the new crop is relatively heavy, was deemed to be an appropriate representation of producer prices, thereby avoiding the need to incorporate a weighting factor.
4) – The single-car railway freight rates employed reflect those found in posted tariffs at the end of each crop year (July 31).
5) – Freight Adjustment Factors (FAF) were introduced in the 1995-96 crop year to account for a change in the eastern pooling basis point, from Thunder Bay to the Lower St. Lawrence, and for the location advantage of accorded shipments from delivery points near Churchill and markets in the United States. FAFs are established prior to the beginning of each crop year to reflect changes in sales opportunities, cropping patterns and Seaway freight rates.
6) – An examination into the actual trucking costs of producers was recommended in the Quorum Corporation study "*Report on the Identification of Producer Impacts Over and Above those Identified in the Producer Netback Methodology*," May 2002, which can be downloaded from the Monitor's website (www.quorumcorp.net). The issue of trucking costs is discussed further in Section 5.5.
7) – The costs published in the CWB's Annual Report are net of any transportation savings. Since the 2002-03 crop year, the CWB's Annual Reports has published its receipts at "contract prices." In order to provide a consistent time series, the CWB provides the Monitor with an adjusted reporting to reflect receipts and costs at "in-store" Vancouver or St. Lawrence.
8) – The Saskatchewan check-off was increased from $0.50 per tonne to $0.75 per tonne on 1 January 2005. The Alberta check-off was increased from $0.50 to $1.00 per tonne on 1 August 2003. The Manitoba check-off was increased from $0.50 to $1.00 per tonne on 1 August 2008.
9) – Levies for Manitoba and Alberta producers are refundable. Previously set at 0.5%, the Saskatchewan levy stood at 0.75% on 1 August 2002, and rose to 1.0% on 1 August 2003. The Alberta levy also rose to 1.0% on 1 August 2003.
10) – Various terms are used by grain companies to describe the premiums they offer to producers in an effort to attract deliveries to their facilities – i.e., trucking premiums, marketing premiums, and location premiums. The most common term, however, remains "trucking premium," and it is utilized generically in the calculation of the Export Basis.

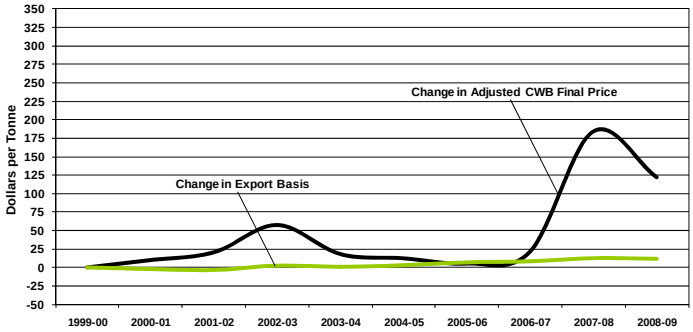
5.2 Export Basis and Producer Netback – CWB Grains (Wheat and Durum)

5.21 1CWRS Wheat

All of the data assembled by the Monitor over the course of the past decade has consistently demonstrated that the financial return arising to producers has been heavily influenced by the prevailing price of grain. While the export basis has unquestionably risen over time, it is the volatility of price in the commodity markets that has had the most sway over the rise and fall of these returns. In the case of 1CWRS wheat, a run up in prices during the first four years of the GMP propelled a climb in the producer's netback from an average of $143.25 per tonne in the 1999-2000 crop year to $198.07 per tonne by the end of the 2002-03 crop year. In comparison, the export basis during this same period increased by only $2.57 per tonne.

The gains made during this period began to erode a year later, when a sharp decline in the price of 1CWRS wheat proved largely responsible for a reduction in the producers' netback, to $160.28 per tonne. Although this downward pressure eased somewhat over the next two crop years, the price of 1CWRS continued to slide. When coupled with increases in the export basis, the producers' netback was reduced to a GMP low of $141.17 per tonne in the 2005-06 crop year.

Figure 73: Change in Netback Components – 1 CWRS Wheat



Owing to another upturn in the price of 1CWRS wheat, the producer's netback in the 2006-07 crop year again rose above the $143.25-per-tonne level set in the GMP's base year, to reach $156.04 per tonne. The continuing price surge resulted in further gains, with the producer's netback reaching a GMP record of $314.29 per tonne in the 2007-08 crop year. In reflection of the market turmoil occasioned by the global financial crisis, the price of 1CWRS wheat declined in the 2008-09 crop year. The producer's netback fell accordingly, to an average of $253.06 per tonne. Despite this reduction, the per-tonne return to producers still proved to be well ahead of where it had been a decade earlier.

A $12.16-per-tonne increase in the export basis, which rose from its benchmark of $54.58 per tonne to $66.74 per tonne during this same time period, did little to detract from the benefits of a $121.97-per-tonne gain in price. The increase in the export basis was largely consistent with broader measures of inflation, while the gain in the price of 1CWRS wheat proved far more remarkable. At the same time, it must be remembered that the increase in the export basis was also tempered by even more substantial gains in the financial benefits derived from higher trucking premiums and CWB savings. The forces shaping these results are summarized in the following table.

Contributory Changes to Producer Netback – 1CWRS Wheat (dollars per tonne)

							2008-09 / 1999-2000		
	1999-00	2004-05	2005-06	2006-07	2007-08	2008-09	$ VAR	% VAR	
CWB Final Price	$192.43	$205.10	$195.14	$212.89	$372.06	$311.36	$118.93	61.8%	▲
Plus: CWB Costs (Net)	5.40	5.01	7.84	6.35	9.88	8.44	3.04	56.3%	▲
Adjusted CWB Final Price	197.83	210.11	202.98	219.24	381.94	319.80	121.97	61.7%	▲
Direct Costs	56.90	62.94	67.69	70.14	74.96	74.61	17.71	31.1%	▲
Less: Trucking Premiums	-2.32	-3.68	-4.56	-5.15	-5.55	-6.17	-3.85	165.9%	▲
CWB Savings	0.00	-1.49	-1.32	-1.79	-1.76	-1.70	-1.70	n/a	▲
Export Basis	54.58	57.77	61.81	63.20	67.65	66.74	12.16	22.3%	▲
Producer Netback	$143.25	$152.34	$141.17	$156.04	$314.29	$253.06	$109.81	76.7%	▲

Final Realized Price

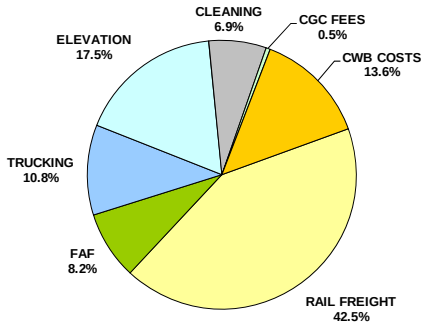
Better prices proved to be the chief force underlying improvements in the netback to producers of 1CWRS wheat throughout much of the GMP. From the 1999-2000 crop year's benchmark price of $192.43 per tonne, shrinking global wheat stocks and the prospect of tighter supplies helped push the Final Price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

Favourable harvests resulting in record global wheat production and increased competitive pressure in the 2008-09 crop year placed significant downward pressure on wheat prices. Moreover, the instability occasioned by the global financial crisis only added to these pressures. This, coupled with the relative strength of the Canadian dollar, served only to weaken prices even more. As a result, the Final Price of 1 CWRS wheat fell to $311.36 per tonne in the 2008-09 crop year. Notwithstanding this 16.3% reduction in value of the Final Price, it still stood well above the historical average, ranking second only to that of the previous crop year.

Export Basis

The export basis has increased fairly steadily since the beginning of the GMP, although much of this has come in the last seven crop years. In fact, from a low of $50.88 per tonne reached in the 2001-02 crop year, the export basis for 1CWRS progressively increased, attaining a recent height of $67.65 per tonne in the 2007-08 crop year. The 2008-09 crop year saw the export basis fall by a marginal 1.3% from this level, to $66.74 per tonne. This remains 22.3% greater than the $54.58 per tonne first benchmarked a decade earlier.

Figure 74: Wheat Export Basis – Direct Costs



It is important to recognize that the export basis has two distinct structural components. The first of these relates to the direct costs incurred by producers in delivering grain to market. These include the cost of rail freight, trucking, elevation, dockage, CGC weighing and inspection, as well as the associated operating costs incurred by the CWB. The second component encompasses all of the financial benefits accruing to producers through the receipt of any offset to these expenses. These typically include any of the trucking premiums received by producers from the grain companies along with any transportation savings passed on to them by the CWB through its pool accounts.[155] It is the more substantive increase in these latter elements that have helped to contain the growth in direct costs, and a potentially larger increase in the export basis itself.

Over the course of the past ten crop years, the direct cost component of the export basis has climbed by 31.1%, from an average of $56.90 per tonne in the 1999-2000 crop year to $74.61 per tonne in the 2008-09 crop year. The largest single element in these costs is the applicable freight, which incorporates not only the charges for an average railway shipment, but the applicable CWB Freight Adjustment Factor (FAF) and Churchill Freight Advantage Rebate (CFAR).[156] In the 1999-2000 crop year, the average weighted applicable freight for 1CWRS wheat in western Canada amounted to $31.87 per tonne, which represented 56.0% of total direct costs. Although the per-tonne average climbed to $37.83 by the end of the 2008-09 crop year, its proportion of total direct costs declined marginally to 50.7%.

[155] These savings, comprised of the accepted bids from the tendering process, freight and terminal rebates, and financial penalties for non-performance, are paid to producers through the CWB's pool accounts.

[156] The 2007-08 crop year was the last for the Churchill Freight Advantage Rebate (CFAR). Beginning with the 2008-09 crop year, the CFAR was replaced by the Churchill Storage Program (CSP). No actual payments were made under the CSP during this transitional year.

Among the other elements in the direct costs attributable to 1CWRS wheat were:

- Trucking Costs: The commercial costs tied to a 40-mile haul are estimated to have increased by 36.2% over the course of the last ten years, to $8.09 per tonne in the 2008-09 crop year from $5.94 per tonne at the beginning of the GMP. Despite the magnitude of the overall increase in these costs, trucking's share of total direct costs has remained largely unchanged, climbing only marginally to 10.8% from 10.4%.

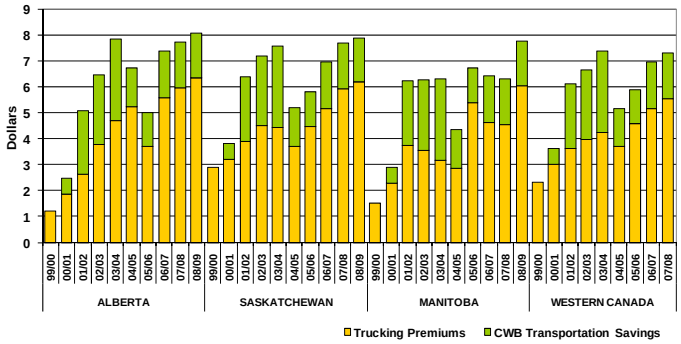
- Primary Elevation Costs: These costs averaged $9.75 per tonne in the 1999-2000 crop year, and comprised 17.1% of the total direct costs for 1CWRS wheat. Increases in the tariff rates over the next decade effectively raised the cost of elevation by 33.5%, to an average of $13.02 per tonne in the 2008-09 crop year. Their share of total direct costs also increased, if only marginally, to 17.5%. It should be noted that the posted tariffs reflect the maximum rates that grain companies may charge producers for these services at their facilities. Although grain companies can charge less, cash-ticket data suggests that this is seldom the case.

- Dockage Costs: The cost of terminal cleaning averaged $3.56 per tonne in the 1999-2000 crop year, and comprised 6.3% of total direct costs. Although these costs increased by 44.7% over the course of the last decade, to an average of $5.15 per tonne in the 2008-09 crop year, their contribution to total direct costs rose only marginally to 6.9%. As with primary elevation tariffs, the rates posted represent the maximum that grain companies may charge. Cash-ticket data indicates that this is typically the norm.

- CGC Weighing and Inspection Fees: These costs remained unchanged at an average of $0.38 per tonne throughout the course of the past ten crop years. On a proportional basis, they constitute a mere 0.5% of total direct costs.[157]

- Gross CWB Costs: These costs effectively reflect the per-tonne operating costs of the CWB, which are ultimately paid by producers through the CWB's pool accounts. Given the nature of these costs, they can fluctuate substantially from year to year. In the 1999-2000 crop year, gross CWB costs averaged $5.40 per tonne, and constituted 9.5% of the total direct costs for 1CWRS wheat. By the 2008-09 crop year, these costs had increased to an average of $10.14 per tonne, and represented a comparatively larger 13.6% of total direct costs.

Figure 75: Wheat Export Basis – Producer Benefits (dollars per tonne)



During the GMP, the direct costs cited above are typically offset by two financial benefits that accrue to producers. These come in the form of any trucking premiums that may have been received directly from grain companies, as well as the transportation savings they indirectly received from the CWB.[158] In the case of trucking premiums, it has been a long-established practice of the grain companies' to use these as an

[157] The CGC weighing and inspection costs reported here have been adjusted in order to avoid overlap with the portion of such charges assessed by the grain companies through their primary elevation tariffs, and a possible distortion of the export basis.

[158] There are a number of other methods that grain companies use to compete to get grain to their elevator driveways - what they refer to as their toolbox. In addition to trucking premiums, grade promotions, discounts on farm supplies, favourable credit terms, or even the absorption of trucking cost, are also employed. These benefits, which flow to producers, are not consistently tracked through grain company accounting processes. The producer benefits component of the export basis does not attempt to quantify these benefits. By the grain companies' own admission, an accurate tracking of these benefits on a system-wide basis would not be

instrument with which to draw grain into their facilities. Still, the data suggests that the competition between grain companies has pushed these premiums generally higher.

For the most part, the trucking premiums paid by the grain companies for the delivery of 1CWRS wheat in each of the nine sampling areas have more than doubled over the course of the past ten years, increasing from an average of $2.32 per tonne in the 1999-2000 crop year to $6.17 per tonne in the 2008-09 crop year. On a proportional basis, these premiums have been offsetting an increasingly larger amount of the producer's direct costs: 4.1% in the 1999-2000 crop year compared to 8.3% in the 2008-09 crop year.

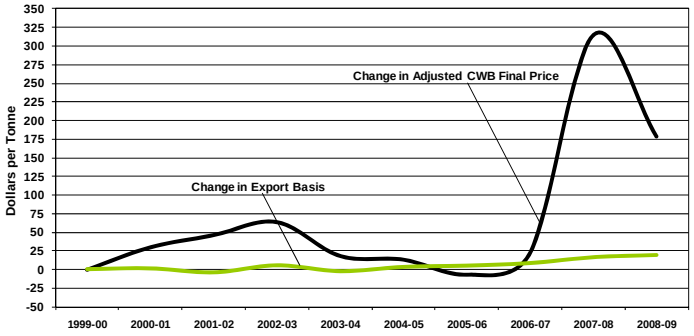
The transportation savings identified by the CWB stem directly from the implementation of its tendering program in the 2000-01 crop year. In that crop year, these savings amounted to an average of $0.61 per tonne, which offset the direct costs tied to 1CWRS wheat by 1.1%. By the 2003-04 crop year, these savings had increased more than five-fold, to an average of $3.14 per tonne and 5.0% of total direct costs. However, data collected over the next five crop years showed a considerable reduction in the value of these savings. By the end of the 2008-09 crop year, these savings had fallen to $1.70 per tonne, thereby reducing its direct-cost offset to 2.3%.

As a result of these forces, the financial benefit accruing to producers in the 2008-09 crop year averaged $7.87 per tonne, more than three times the $2.32 per tonne recorded in the first year of the GMP. What is more, the offsetting value of these financial benefits also increased, amounting to 10.5% of total direct costs compared to 4.1% a decade earlier.

5.22 1CWA Durum

As was the case for 1CWRS wheat, the netback to producers from the delivery of 1CWA durum rose steadily in the first four years of the GMP. Fuelled by an increase in the price of durum, producer returns climbed from an average of $160.48 per tonne in the 1999-2000 crop year to $218.96 per tonne in the 2002-03 crop year. But when prices began to fall, so too did the producers' netback. Over the course of the next three crop years the financial returns to producers of 1CWA durum drifted steadily lower, ultimately falling to a GMP low of $148.94 per tonne in the 2005-06 crop year.

Figure 76: Change in Netback Components – 1 CWA Durum



However, world prices began to improve in the 2006-07 crop year. Due in large part to this upturn in the price of 1CWA durum, the producer's netback once again rose above the $160.48-per-tonne level set in the GMP's base year. This run-up in the price of durum accelerated in the 2007-08 crop year, with the producer's netback soaring to a GMP record of $458.04 per tonneTthe price of 1CWA durum stumbled badly in the 2008-09 crop year. Even so, the resultant $319.19 per tonne returned to producers proved to be double what it had been ten years before. This impressive gain came despite a $19.94-per-tonne increase in the export basis, which rose from its benchmark of $67.63 per tonne to $87.57 per tonne over the same time period. Here too, it must also be remembered that increased trucking premiums and CWB savings did much to temper the overall rise in the export basis.

Changes in the producer's netback for 1CWA durum are summarized in the accompanying table.

Contributory Changes to Producer Netback – 1CWA Durum (dollars per tonne)

2008-09 / 1999-2000

feasible. Data pertaining to these methods of attracting grain would contain a significant degree of subjectivity and is, therefore, not included in these calculations.

	1999-00	2004-05	2005-06	2006-07	2007-08	2008-09	$ VAR	% VAR	
CWB Final Price	$206.79	$220.37	$199.35	$227.55	$512.81	$378.37	$171.58	83.0%	▲
Plus: CWB Costs (Net)	21.32	21.30	22.20	22.76	29.67	28.39	7.07	33.2%	▲
Adjusted CWB Final Price	228.11	241.67	221.55	250.31	542.48	406.76	178.65	78.3%	▲
Direct Costs	70.77	76.46	78.69	83.39	92.44	95.74	24.97	35.3%	▲
Less: Trucking Premiums	-3.14	-4.24	-4.76	-5.42	-6.24	-6.47	-3.33	106.1%	▲
CWB Savings	0.00	-1.49	-1.32	-1.79	-1.76	-1.70	-1.70	n/a	▲
Export Basis	67.63	70.73	72.61	76.18	84.44	87.57	19.94	29.5%	▲
Producer Netback	$160.48	$170.94	$148.94	$174.13	$458.04	$319.19	$158.71	98.9%	▲

Final Realized Price

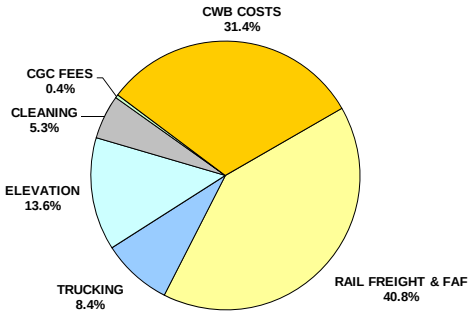
Limited supplies of high-grade milling durum in the face of reduced North American production was largely responsible for pushing the Final Price of 1 CWA durum (13.5% protein) steadily upwards in the first four years of the GMP, from an initial value of $206.79 per tonne in the 1999-2000 crop year to a height of $266.88 per tonne in the 2002-03 crop year. However, durum prices began to tumble in the 2003-04 crop year as a result of bumper crops in North Africa, the largest durum-importing region in the world. Prices continued to weaken over the course of the next two years, with the Final Price for 1CWA durum ultimately falling to $199.35 per tonne in the 2005-06 crop year. A tightening of supplies caused prices to rally a year later but it was the ensuing global shortage that propelled the Final Price for 1CWA durum considerably higher in the 2007-08 crop year, to a GMP record of $512.81 per tonne.

A large, good-quality European harvest, complemented by increased North American production, brought downward pressure on prices in the 2008-09 crop year. Moreover, the instability occasioned by the global financial crisis exacerbated the situation, weaken prices even more. As a result, the Final Price of 1 CWA durum fell to $378.37 per tonne in the 2008-09 crop year. Notwithstanding this 26.2% reduction in the Final Price, it still stood well above the historical average, ranking second only to that of the previous crop year.

Export Basis

As was outlined previously with respect to 1CWRS wheat, the export basis for 1CWA durum has also risen fairly steadily over the course of the GMP. In fact, the cumulative effect of these increases was a 29.5% rise, with the export basis for the 2008-09 crop year reaching $87.57 per tonne compared to the $67.63-per-tonne value recorded in the base year.

Figure 77: Durum Export Basis – Direct Costs



As with 1CWRS wheat, the export basis of 1CWA durum has the same two structural components: the direct costs incurred in delivering grain to market; and the financial benefits accruing from the receipt of any offset to these expenses. The gains derived from these latter elements have been instrumental in containing the growth in direct costs, and ultimately the export basis.

The direct costs tied to 1CWA durum have risen in a somewhat more undulating manner than that presented for 1CWRS wheat. After climbing to $79.48 per tonne in the 2002-03 crop year, these costs dipped slightly before then beginning to rise again. By the close of the 2008-09 crop year, these costs had reached an average of $95.74 per tonne. And although the FAF component was not as great as that of 1CWRS wheat, rail

freight also constituted the single largest element in the makeup of these costs.[159] For the 2008-09 crop year, the weighted average freight for the movement of 1CWA durum totalled $39.10 per tonne, a gain of 30.0% over the $30.07 per tonne it had been ten years earlier. Still, its share of total direct costs fell marginally, to 40.8% from the 42.5% it had constituted in the first year of the GMP.

Gross CWB costs also increased over the course of the past decade: from $21.32 per tonne in the first year of the GMP to $30.09 per tonne in the 2008-09 crop year. Notwithstanding year-to-year fluctuations, the share of total direct costs attributable to this element has risen only marginally, increasing from 30.1% to 31.4%.

Among other changes in the direct costs attributable to 1CWA durum were:

- Trucking Costs: The commercial costs tied to a 40-mile haul increased to $8.09 per tonne in the 2008-09 crop year. These are the same values cited earlier with respect to wheat, and are 36.2% greater than the costs first recorded in the 1999-2000 crop year. On a proportional basis these accounted for 8.4% of total direct costs in the 2008-09 crop year, unchanged from the share recorded a decade before.

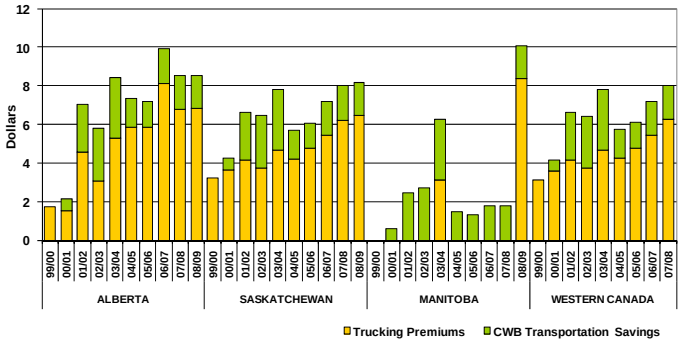
- Primary Elevation Costs: These costs averaged $9.44 per tonne in the 1999-2000 crop year, and comprised 13.3% of total direct costs. Increases in the tariff rates pushed the cost of elevation up by 37.7% to an average of $13.00 per tonne in the 2008-09 crop year. On a proportional basis, their share of total direct costs has remained largely unchanged, having risen only marginally to 13.6%.

- Dockage Costs: The cost of terminal cleaning averaged $3.62 per tonne in the 1999-2000 crop year, and comprised 5.1% of total direct costs. By the 2008-09 crop year these costs had increased 40.3%, amounting to an average of $5.08 per tonne, with its share of total direct costs having only marginally risen to 5.3%.

- CGC Weighing and Inspection Fees: These costs have remained unchanged at an average of $0.38 per tonne throughout the course of the GMP. On a proportional basis, they constitute only 0.4% of total direct costs.

As with wheat, the trucking premiums paid by grain companies for 1CWA durum deliveries have moved steadily higher over the course of the past ten years. Between the 1999-2000 and 2007-08 crop years, these premiums rose from an average of $3.14 per tonne to $6.24 per tonne. The 2008-09 crop year saw yet another increase in these premiums, with the average rising a further 3.7% to a record $6.47 per tonne. This served to shield 6.8% of the total direct costs incurred by farmers in the exporting of their grain, comparatively more than the 4.4% offset in the first year of the GMP.[160]

Figure 78: Durum Export Basis – Producer Benefits (dollars per tonne)



The CWB's transportation savings are also applicable on the movement of 1CWA durum, and are in fact identical to those already presented for 1CWRS wheat. In the 2000-01 crop year, these savings amounted to an average of $0.61 per tonne, which helped reduce total direct costs by 0.8%. By the end of the 2003-04 crop

[159] For 1CWA durum, the FAF constitutes a very small portion of the overall applicable freight – 1.4% in the 1999-2000 crop year. Moreover, the average FAF for 1CWA durum has been steadily decreasing. Although not large in absolute terms, the average FAF dropped from $0.41 per tonne in the 1999-2000 crop year, to a credit of $0.03 in the 2008-09 crop year. When treated as a credit, the FAF actually reduces the freight paid by producers.

[160] It should be noted, that due in large part to the much lower volumes of durum handled in Manitoba, the premiums paid out to producers there have been insignificant. The trucking premiums reported as having been paid to Manitoba producers in both the 2003-04 and 2008-09 crop years are derived from deliveries made to but one station in Manitoba's southwestern sampling area. These were the sole instances where a station in Manitoba reported taking delivery of durum.

year, they had climbed to an average of $3.14 per tonne. And although they have since declined to $1.70 per tonne, they still stood at a level almost three times greater than in the first year of the CWB's tendering program, and accounted for an offset to total direct costs of 1.8%.

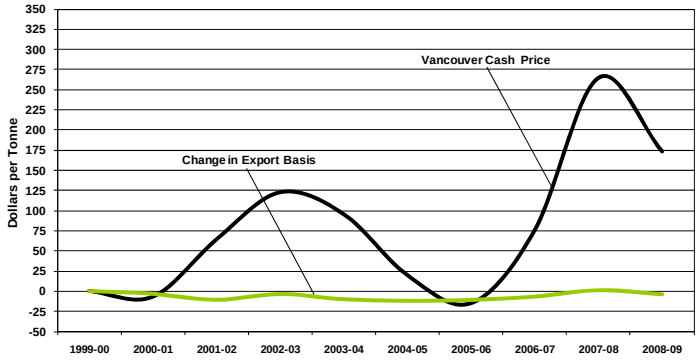
When examined on a combined basis, these producer benefits have moved generally higher, from a total of $3.14 per tonne in the 1999-2000 crop year to a record $8.17 per tonne in the 2008-09 crop year. These financial benefits have more than doubled over the course of the last decade. Moreover, as an 8.5% offset to total direct costs, they have helped contain the escalation in the export basis over this same period.

5.3 Export Basis and Producer Netback – Non-CWB Commodities (Canola and Peas)

5.31 1 Canada Canola

As was the case with the CWB grains discussed previously, the visible netback to producers from the delivery of 1 Canada canola has fluctuated rather significantly over the course of the last decade. Much of this has also been price driven. By the 2002-03 crop year, the producer's netback had risen from a benchmark $239.10 per tonne to $365.39 per tonne. But these initial gains were lost in the face of an ensuing three-year decline in canola prices, with the netback to producers falling to its lowest value during the GMP, $234.62 per tonne.

Figure 79: Change in Netback Components – 1 Canada Canola



As prices began to rise in the 2006-07 crop year, there were signs that this cycle was beginning anew. Further price gains pushed the producer's netback for the 2007-08 crop year even higher, to a record $503.29 per tonne. However, the 2008-09 crop year saw prices pull back, with a resultant reduction in the financial return to farmers, which fell to $416.59 per tonne..

This still represented a net increase of $177.49 per tonne, or 74.2%, from the netback value presented in the first year of the GMP. This gain was largely derived from a $173.61-per-tonne net increase in the Vancouver cash price of 1 Canada canola, as well as a small decrease in the export basis, which fell by $3.88 per tonne over this same period. The changes in these individual components are summarized in the following table.

Contributory Changes to Producer Netback – 1Canada Canola (dollars per tonne)

							2008-09 / 1999-2000		
	1999-00	2004-05	2005-06	2006-07	2007-08	2008-09	$ VAR	% VAR	
Vancouver Cash Price	$291.61	$311.19	$276.38	$367.25	$556.76	$465.22	$173.61	59.5%	▲
Direct Costs	54.99	41.31	42.19	46.30	53.96	49.83	-5.16	-9.4%	▼
Less: Trucking Premiums	-2.48	-0.34	-0.43	-0.50	-0.49	-1.20	1.28	-51.6%	▼
Export Basis	52.51	40.97	41.76	45.80	53.47	48.63	-3.88	-7.4%	▼
Producer Netback	$239.10	$270.22	$234.62	$321.45	$503.29	$416.59	$177.49	74.2%	▲

Vancouver Cash Price

As was the case with CWB grains, upward price movement proved to be the key driver in an observed improvement in the netback for 1 Canada canola. Between the 1999-2000 and the 2002-03 crop years, the

average Vancouver cash price climbed from $291.61 per tonne to $414.36 per tonne. Much of this improvement could be traced to tightening global supplies. But an increase in international supplies brought about a softening in the price of 1 Canada canola a year later. These same forces were at work in the 2004-05 and 2005-06 crop years, with the average Vancouver cash price ultimately falling to a GMP low of $276.38 per tonne. Record soybean production in South America along with a substantial increase in US output proved to be the chief factors in this.

However, the 2006-07 crop year brought about a significant shift in market conditions. While a severe drought curtailed production in Australia, the demand for canola was being stimulated by the growing need for feedstock in US and European biodiesel production. The 2007-08 crop year saw declining oilseed stocks coupled with rising consumption propel canola prices to even further heights, with the average Vancouver cash price reaching a GMP record of $556.76 per tonne.

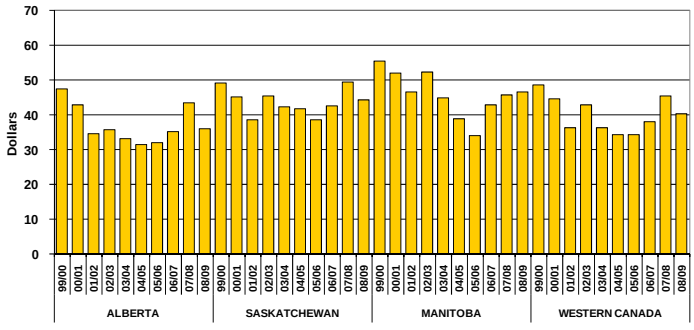
Record Canadian production along with greater outputs from Australia, Russia and Ukraine led to expectations of a global oversupply in the 2008-09 crop year. This, along with increased palm oil production from countries like Indonesia, served only to undermine global prices. The instability occasioned by the global financial crisis did little to help matters. Even an unprecedented surge in Chinese demand provided only partial price support. As a result, the Vancouver cash price fell to an average of $465.22 per tonne. Notwithstanding this 16.4% reduction, the average price still remained well above the $291.61 per tonne benchmarked in the GMP's base year.

Export Basis

Over the course of the last decade, the export basis for 1 Canada canola has decreased by 7.4%, from an average of $52.51 per tonne in the 1999-2000 crop year to $48.63 in the 2008-09 crop year. This, however, is somewhat misleading in as much as a fairly steady reduction in the GMP's first six years was followed by later increases. The most recent of these increases resulted in the export basis climbing to a high of $53.47 per tonne in the 2007-08 crop year. Notwithstanding this recent peak, the export basis fell by 9.1% in the wake of the strong demand for canola in the 2008-09 crop year.

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

Figure 80: 1 Canada Canola – Price Differential (dollars per tonne)



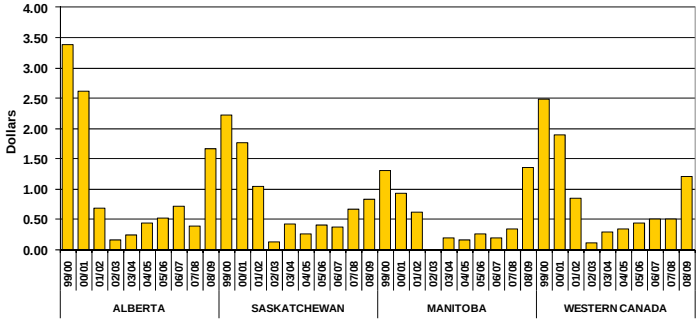
In contrast to the patterns observed for wheat and durum, the direct costs tied to 1 Canada canola have largely declined since the 1999-2000 crop year. Total direct costs in the 2008-09 crop year stood 9.4% below that recorded in the first year of the GMP, having fallen to an average of $49.83 per tonne from $54.99 per tonne a decade earlier. Even when painted against this broader decline, it must be noted that total direct costs have generally been rising since reaching a low of $41.31 per tonne in the 2004-05 crop year.

Much of the impetus for this has come from changes in the price differential. Since any narrowing of the price differential effectively signals that the product is in demand, and that buyers are willing to surrender a greater proportion of the Vancouver price to the producer in order to acquire sufficient supplies, the broader reduction underscores the strengthening export demand for Canadian canola. Over the course of the last ten years, this differential has narrowed from an average of $48.55 per tonne to $40.82 per tonne. Moreover, its share of total direct costs has declined from 88.3% to 81.9%.

The second largest component in canola's direct costs is that associated with trucking the commodity from the farm gate to an elevator or processor. As in the determination of the producers' netback for CWB grains, these costs are estimated to have climbed by 36.2% in the last ten crop years, increasing to an average of $8.09 per tonne compared to $5.94 per tonne at the beginning of the GMP. Owing to the narrowing of the price differential over the past several years, trucking costs in the 2008-09 crop year accounted for a somewhat greater proportion of the total direct costs, 16.2% versus 10.8% in the 1999-2000 crop year. The remaining direct costs, which accounted for just 1.8% of the overall total, were derived from a provincial check-off that is applied as a means of funding the Canola Growers' Association.

Unlike CWB grains, trucking premiums are not as aggressively used to attract deliveries of non-CWB commodities. In fact, prior to the 2008-09 crop year the trucking premiums applied to the movement of canola had all but been eliminated, having fallen from an average of $2.48 per tonne in the first year of the GMP to just $0.49 per tonne at the close of the 2007-08 crop year. But the 2008-09 crop year saw a sharp resurgence in their value with the average premium paid for 1 Canada canola deliveries having more than doubled, rising to $1.20 per tonne. Similarly, its value as an offset to total direct costs also increased, climbing to 2.4% from just 0.9% a year earlier.

Figure 81: 1 Canada Canola – Producer Benefits (dollars per tonne)

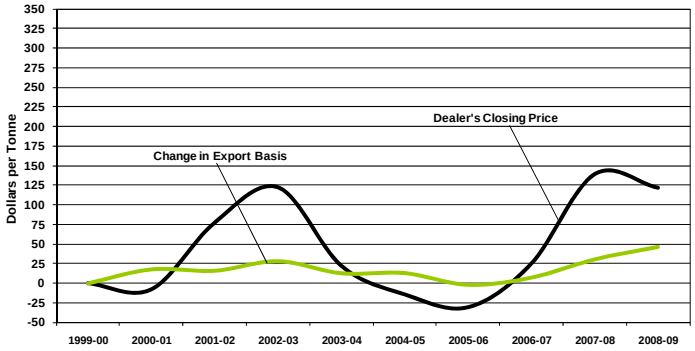


Notwithstanding the recent increase in trucking premiums, it is worth noting that these premiums have largely fallen in conjunction with the narrowing of the price differential. This is consistent with comments received from grain companies to the effect that they prefer to use the spread between the spot price and the futures price as the primary signalling mechanism to attract deliveries. Although their resurgence in the 2008-09 crop year proved reflective of a more competitive environment, trucking premiums still played a very limited role in containing the export basis for canola.

5.32 Large Yellow Peas

As opposed to the commodities already discussed, the visible netback arising to producers of large yellow peas has proven to be the most volatile. Indeed, reductions from the benchmark value of $147.78 per tonne were noted in four of the last ten crop years. In much the same manner as was cited earlier, this volatility was due to the rise and fall of market prices. An initial upturn in the price of large yellow peas helped raise the producer's netback to a height of $241.95 per tonne in the 2002-03 crop year before then beginning to slide to a low of $118.75 per tonne three years later.

Figure 82: Change in Netback Components – Large Yellow Peas



But another dramatic run-up in prices served to bolster the farmer's return in the 2006-07 and 2007-08 crop years, which ultimately reached $256.31 per tonne. And while prices sagged 5.1% in the 2008-09 crop year, the reduction was not as pronounced as for other commodities. Moreover, an 18.8% increase in the export basis furthered the reduction in the visible

netback due to producers from the delivery of large yellow peas, which fell by 13.1% to $222.63 per tonne. The changes giving rise to these results are summarized in the following table.

Contributory Changes to Producer Netback – Large Yellow Peas (dollars per tonne)

	1999-00	2004-05	2005-06	2006-07	2007-08	2008-09	2008-09 / 1999-2000 $ VAR	2008-09 / 1999-2000 % VAR	
Dealer's Closing Price	$202.54	$188.17	$171.69	$227.43	$341.82	$324.51	$121.97	60.2%	▲
Direct Costs	54.94	68.12	53.07	62.41	85.90	101.88	46.94	85.4%	▲
Less: Trucking Premiums	-0.18	-0.14	-0.13	-0.24	-0.39	-0.31	-0.13	72.2%	▲
Export Basis	54.76	67.98	52.94	62.17	85.51	101.57	46.81	85.5%	▲
Producer Netback	$147.78	$120.19	$118.75	$165.26	$256.31	$222.63	$74.85	50.6%	▲

Dealer's Closing Price

As with canola, price has proven to be the key determinant in the netback accruing to producers of large yellow peas over the course of the last decade. Moreover, while sensitive to the wider influences of the international marketplace, Canadian supplies exercise significant sway in the marketplace. Reflecting the effects of a reduction in international supply, the dealer's closing price rose from $202.54 per tonne to $325.14 per tonne in the first four years of the GMP. Beginning in the 2003-04 crop year, however, increasing supplies brought downward pressure on price, with the average price of large yellow peas declining to $224.77 per tonne. Much the same occurred in the 2004-05 and 2005-06 crop years as prices continued to fall, slipping to a GMP low of $171.69 per tonne.

Even though production continued to decline, strong international demand in the face of tighter supplies resulted in prices rebounding sharply in the 2006-07 crop year. A sustained demand for human consumption peas in India helped drive up prices even more in the 2007-08 crop year, with the dealer's closing price having reached a GMP record of $341.82 per tonne.

Against the broader backdrop of the global financial crisis, the market price of large yellow peas declined in the 2008-09 crop year. Weaker demand in India, traditionally a price-sensitive market, was a key factor in the application of downward pressure on price, with the dealer's closing price falling to an average of $324.51 per tonne. Even so, the reduction proved a comparatively modest 5.1%, with the average price remaining well above the $202.54 per tonne benchmarked in the GMP's base year.

Export Basis

The export basis for large yellow peas has varied significantly over the course of the GMP. Under the first four years the program the export basis actually climbed by 51.9%, reaching a height of $83.19 per tonne in the 2002-03 crop year. This was followed by a fairly steady decline, with the export basis falling to a record low of $52.94 per tonne in the 2005-06 crop year. However, it began to rebound in the 2006-07 crop year, reaching a height of $62.17 per tonne. Moreover, this upward momentum continued into both the 2007-08 and 2008-09 crop years, with the export basis attaining a GMP record of $101.57 per tonne.

As with canola, because of the relative size of the direct cost component in the export basis, changes in the former are virtually indistinguishable from those of the export basis itself. Likewise, over 80% of these direct costs cannot be examined directly. Instead, a price differential between the dealer's closing price and the grower's bid closing price is calculated as an approximation for the cost of freight as well as other handling, cleaning, and storage activities.

Over the first four years of the GMP, the price differential increased from $48.23 per tonne to $75.52 per tonne. This was followed by reductions in the 2003-04 through 2005-06 crop years, where the price differential fell to a low of $44.56 per tonne. The 2006-07 crop year, however, saw the price differential increase to a somewhat greater $52.90 per tonne. This was followed by more substantive increases in the 2007-08 and 2008-09 crop years, with the differential rising to $75.25 per tonne and $91.46 per tonne respectively. Accounting for 89.8% of total direct costs in the 2008-09 crop year, this proportion proved only marginally greater than the 87.8% share noted in the base year.

Figure 83: Large Yellow Peas – Price Differential (dollars per tonne)

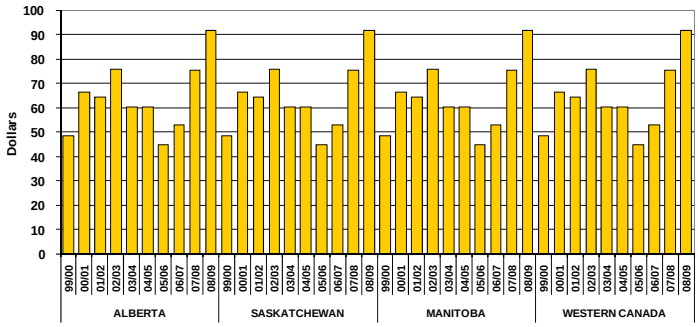
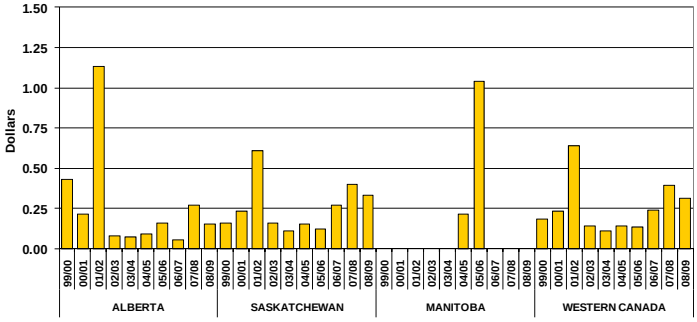


Figure 84: Large Yellow Peas – Producer Benefits (dollars per tonne)



The second largest component in the direct costs of large yellow peas is trucking. As elsewhere, these costs are estimated using an average haul distance of 40 miles, and are deemed to have risen to about $8.09 per tonne in the 2008-09 crop year. On a comparative basis, this element accounted for 7.9% of total direct costs versus 10.8% at the outset of the GMP. The remaining 2.3% was derived from a levy assessed by the provincial Pulse Growers Association at the time of delivery.

Trucking premiums are even less commonly used to encourage the delivery of large yellow peas than they are for canola, and were largely on the decline for the first seven years of the GMP. From an average of $0.18 per tonne for the 1999-2000 crop year, these premiums fell to just $0.13 per tonne by the end of the 2005-06 crop year. However, the ensuing two crop years saw these premiums increase, ultimately attaining an overall average of $0.39 per tonne with the close of the 2007-08 crop year. The premiums declined somewhat in the 2008-09 crop year, pulling back to an average of $0.31 per tonne and an offset to direct costs of just 0.3%. This proved unchanged from the offset value recorded a decade earlier.

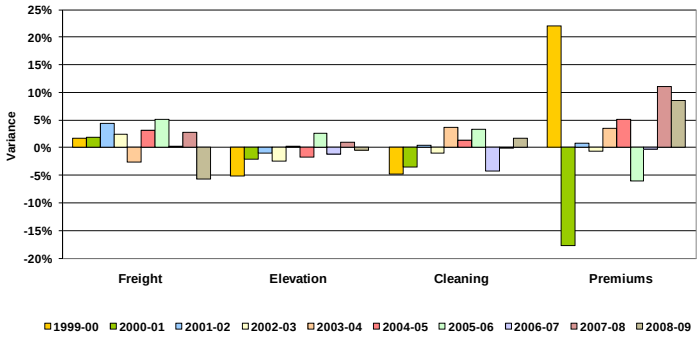
5.4 Cash Ticket Analysis

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

Figure 85 illustrates the variance observed in a comparison of the individual deductions and premiums identified on the cash tickets, and the averages developed in the calculation of the export basis for wheat. For the 2008-09 crop year, the variances observed with respect to elevation and cleaning were minimal, amounting to less than 2.0% in both cases. The variance on freight proved somewhat greater, amounting to about 5.6%. At 8.6%, the variability on competitive premiums remained the most pronounced, although it had been reduced in comparison to that observed a year earlier.

The GMP utilizes posted tariff rates to reflect freight, elevation and cleaning charges. The freight deductions seen in the sample of cash tickets for the 2008-09 crop year were modestly greater than the weighted averages used for applicable freight in the export basis analysis.[161] The charges for elevation and cleaning appearing on the cash tickets showed little difference from the averages drawn from the applicable tariffs. In all cases, the variance observed was within the bounds of statistical error.

Figure 85: Cash Ticket Variances



Greater variability was observed with respect to the premiums reported as having been paid on these cash tickets. This was particularly true of the 1999-2000 and 2000-01 crop years, when the cash tickets revealed trucking premiums to have varied by factors of 22% above, and 18% below, those reported on an aggregated basis by the grain companies.[162] The variances observed in both the 2001-02 and 2002-03 crop years proved significantly better, differing only by a factor of about one percent. However, in the years that followed, the variance steadily widened: from 3.5% in the 2003-04 crop year to 11.1% in the 2007-08 crop year. The 2008-09 crop year proved different in as much as the variance fell to 8.5%. Much of the broader gain observed in recent years appears to be related to the receipt of poorer quality data. Even so, the variance is in the farmers' favour, as it suggests that the cash ticket data understates the premiums producers actually receive.

In light of these results, the Monitor is satisfied that the methodology used to determine both the export basis and the producer's netback, along with the aggregated data received from the grain companies, provides for a fair representation of the financial returns experienced by western Canadian producers since the beginning of the GMP.

5.5 The Netback Calculator

As was reported in the Monitor's annual report for the 2002-03 crop year, an initiative was undertaken to improve the quality of the information used in estimating the export basis and to give producers internet access to portions of the database used for the producer netback analysis. The result of this initiative, the Producer Netback Calculator (PNC), was implemented in March 2004, and can be found at www.netback.ca.

The concept for the PNC originates with some of western Canada's producer groups who suggested methods for employing the Monitoring program's producer netback statistics as a management tool in making better grain-delivery decisions. They advanced the idea that the Monitor create a mechanism through which producers could gain access to local, and current, tariff and cost data in order to allow them to identify the most effective delivery alternatives for their products. At the same time, the Monitor was searching for a more effective means with which to understand the decisions and behaviour of producers in the delivery of grain. The concept of the PNC came out of those discussions and, after reviewing the concept, the federal government agreed to support the development of an internet-based system.

After considerable input from a broad spectrum of the industry, the detailed design and development of the system began in August of 2003. Completed in early 2004, the system was officially released in mid March,

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

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

and has been actively promoted to producers since April of that year. The PNC is an easy-to-use system that provides producers with immediate access to the information that they need to make better delivery decisions.[163] Although the reaction from producers who subscribe and have become regular users of the system has been very positive, for the purposes of the GMP, not all of the PNC's goals have been met.

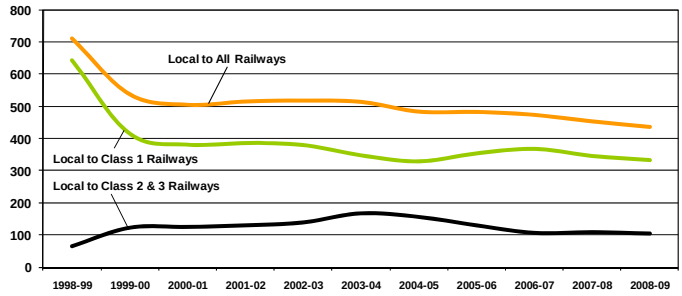
Given the need for statistical validity, the PNC requires a greater number of consistent users. In addition, these users need to be distributed fairly evenly across all nine of the sampling areas used by the GMP. Should these criteria be met, the Monitor fully expects that its future annual reports will incorporate the data collected through the PNC. With this objective in mind, the monitoring team will continue to promote usage of the PNC throughout the coming months at various industry conventions and trade shows, as well as through its regular meetings with the stakeholder community.

5.6 Producer Loading Sites and Shipments *[Measurement Subseries 5B]*

The aggregate number of producer loading sites has declined 38.4% since the beginning of the 1999-2000 crop year, falling from an estimated 709 to 437 by the end of the 2008-09 crop year. Much of this overall decline stems from the reduction in the number of sites served by the larger Class 1 carriers, which fell by 48.3% during the same period, from 644 to 333. Conversely, the number of sites local to the smaller Class 2 and 3 carriers increased from 65 to 104. [See Table 5B-1 in Appendix 5.]

Regionally, Manitoba and Alberta posted the largest attrition rates, with the number of producer loading sites declining by 59.9% and 49.2% respectively. The rate of decline in Saskatchewan was substantially less; the number of sites having fallen by only 18.1% during the same ten-year period. Hidden by these statistics is the fact that while the overall number of producer loading sites has declined sharply, the reduction rate has abated substantially. Since falling to an overall value of 505 in the 2000-01 crop year, the number of producer loading sites has decreased by only 13.5%.

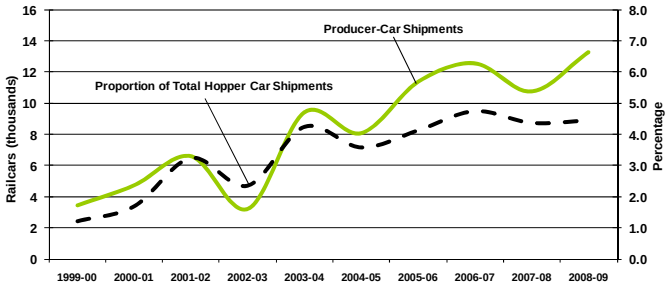
Figure 86: Producer-Car Loading Sites



Producer Car Shipments

Notwithstanding the overall reduction in the number of producer loading sites witnessed, producer-car shipments have been on the rise. In the first eight years of the GMP, these shipments more than tripled, increasing from a benchmark 3,441 carloads to 12,529 carloads in the 2006-07 crop year. Although volumes slid back somewhat in the 2007-08 crop year, to 10,729 carloads, they surged another 23.4% in the 2008-09 crop year, reaching a GMP record of 13,243 carloads.

Figure 87: Producer-Car Shipments



More importantly, their share of all covered hopper car movements has also been increasing. From an estimated 1.2% in the 1999-2000 crop year, producer-car shipments climbed to a GMP record of 4.8% in the 2006-07 crop year. When gauged against total CWB grain shipments, this share

[163] For a more comprehensive review of the Producer Netback Calculator, see Appendix 3.

reached an even greater 7.4%. Although these proportions have fallen back somewhat, amounting to 4.5% and 7.3% respectively in the 2008-09 crop year, the forces underscoring the growth in producer-car loading make it seem likely that further inroads will be made. [See Table 5B-2 in Appendix 5.]

This increase in producer-car shipments has come as a result of many factors, not the least of which includes the formation of producer-car loading groups. While taking a variety of forms, the more common of these has seen local producers working in concert, either through an agent or a centrally-controlled entity, to oversee the loading of producer cars in larger blocks than would be possible on an individual basis. These range from small groups loading their own cars using mobile augers on a designated siding, to much more sophisticated organizations with significant investments in fixed trackside storage and carloading facilities. Some have gone so far as to purchase branch lines being abandoned by CN or CP, establishing a shortline railway that then became an integral element in the larger grain-handling operation.

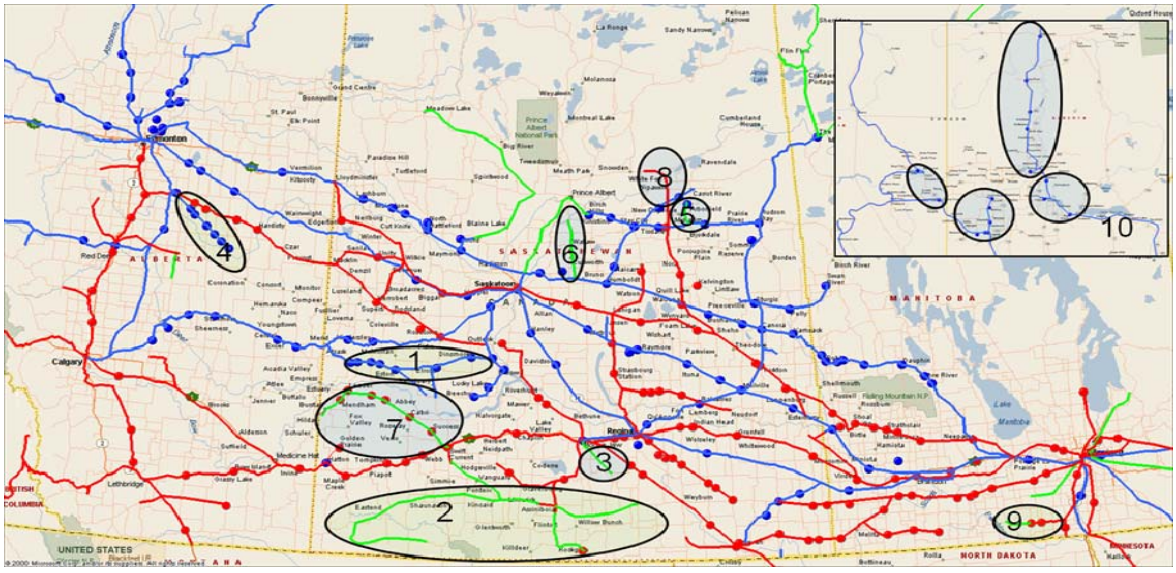
Much of what has brought these producers together has been the threat of losing branch-line railway service through the abandonment that typically follows in the wake of local grain elevator closures. Although all producer-car loading groups are cognizant of the need to generate traffic in order to preserve railway service, many have concluded that the best means of doing is to purchase and operate these lines themselves. Funding for such endeavours has come from the sale of shares to local interests, but has also incorporated debt financing as well (in many cases, government backed).

Broadly speaking, most of these producer groups are situated in Saskatchewan, but a number can also be found in Manitoba as well as Alberta. The foremost among these are illustrated in Figure 88.

Among the more prominent of these groups are:

The Great Western Railway: With over 400 route-miles of track, the Great Western Railway is the longest shortline operation in Saskatchewan. The GWR also serves the largest number of producer-car loading sites of any shortline railway in western Canada. In recent years, the railway has also assumed responsibility for the operation of Red Coat Road and Rail as well as the Fife Lake Railway. The company originated some 2800 producer cars in the 2008-09 crop year, about 21% of the overall total.

Figure 88: Ten Largest Producer-Car Loading Groups in Western Canada



1) West Central Road and Rail Ltd.
2) Great Western Railway (including Red Coat Road and Rail and the Fife Lake Railway)
3) Southern Rails Cooperative Ltd.
4) Battle River Producer Car Group
5) Thunder Rail Ltd.
6) Wheatland Railway Inc.
7) Great Sandhills Railway
8) Torch River Rail Inc.
9) Boundary Trail Railway Co.
10) Peace River Region

The Peace River Region: While still dependent on the railway service provided by CN, there are a number of independent transload operators in this area. Transload operators contract their services to load rail cars on behalf of local producers. The largest of these are located in the Smokey River-Fahler district. Although comparatively small stature, these operations forwarded a combined 2400 producer cars in the 2008-09 crop year, accounting for about 18% of the volume forwarded.

West Central Road and Rail: Started in a period when CN appeared poised to abandon its Elrose subdivision, local producers banded together to form an organization that would finance and build trackside elevation, storage and carloading facilities at strategic points along the line. The first was at Elrose, Saskatchewan, but was later followed by others situated at Beechy and Lucky Lake. A fourth, to be located at Dinsmore, is slated for construction in 2010. In the 2008-09 crop year, the company originated some 2300 producer cars, about 17% of the overall producer-car volume.

The success of these producer-car loading groups has spurred the creation of others. Notable among these are: Torch River Rail Inc., established in 2007 through the purchase of CP's former White Fox subdivision; the Boundary Trail Railway in southern Manitoba, which commenced operations on a portion of CP's former La Riviere subdivision in 2009; and the Great Sandhills Railway, which took over CP's Burstall and Empress subdivisions that same year. As the 2008-09 crop year came to a close, still more plans were advanced for the establishment of new producer-owned shortline operations. These include the Battle River Producer Car Group's efforts to take over CN's Alliance subdivision in Alberta, along with a similar construct being put forward by Mobil Grain for the operation of CN's Craik subdivision in Saskatchewan.

5.7 Summary Observations

An examination of the per-tonne financial returns to producers of wheat, durum, canola, and large yellow peas, indicates that all have improved significantly since the 1999-2000 crop year. These gains ranged from a low of 50.6% in the case of large yellow peas, to a high of 98.9% for 1CWA durum. In all instances, these improvements have been fuelled by substantive increases in the market price of the commodity itself.

Within the wider framework of a time series, however, the producer's netback has fluctuated dramatically. After having steadily climbed to their respective highpoints in the 2002-03 crop year, virtually all of the gains that had been made were surrendered over the next three crop years. Even so, all of this lost ground was later reclaimed as the producer's netback once again surged to record levels during the GMP in the 2007-08 crop year. These gyrations were all tied to wide-ranging swings in commodity prices.

The sensitivity of the producer's netback to changes in price were again in evidence in the 2008-09 crop year when a financial crisis that rocked global commodity markets did much to disrupt grain sales and destabilize prices. Still, in comparison to the collapses wrought in other commodity markets, the damage done to grain prices proved minimal. These ranged from a reduction of just 5.1% in the price of large yellow peas, to a more substantive 26.2% decrease in the final price of 1CWA durum. All of which were echoed in corresponding reductions in the producer's financial returns.

The influence of changes in the export basis has proven to be substantially less. In large part, this lesser sway stems from a sizable difference in the scale of the components themselves. With the export basis typically amounting to about one-quarter of the proceeds derived from a grain sale, its leverage in effecting a change in the netback is simply far less. By way of example, the export basis would have to fall by about 4% to have the same beneficial impact on the netback as that of a 1% increase in price.

Still, the export basis for all commodities has changed over the course of the GMP, albeit with demonstrably less volatility than that exhibited by price. With respect to the CWB grains, the scope of that net change was an increase of 22.3% (or $12.16 per tonne) in the case of wheat, and 29.5% (or $19.94 per tonne) for durum. As for the non-CWB commodities, the changes proved to be more differentiated: a decrease of 7.4% (or $3.88 per tonne) in the case of canola; and an increase of 85.5% (or $46.81 per tonne) for large yellow peas.

To a large extent, the full measure of the increase in the export basis for CWB grains was contained by improvements in the financial benefits accruing to producers, whether in the form of trucking premiums or CWB

transportation savings. These benefits, which amounted to $7.87 per tonne and $8.17 per tonne for wheat and durum respectively, acted as partial counterweights to increases in the direct cost of railway freight, elevation, cleaning, and storage.

The increase in producer benefits reflects the degree to which the competition between grain companies has been heightened. The desire of the larger grain companies to draw increasingly greater volumes of grain into their high-throughput facilities appears to be the foundation for this. Although producers have become more adept at exploiting that rivalry in order to secure the best possible trucking premium when delivering grain, overarching market forces have also played a role.

This, however, is not the case for non-CWB commodities. Both canola and large yellow peas receive significantly less in terms of these per-tonne premiums than CWB grains do. More importantly, the trucking premiums paid for both commodities have declined significantly over the course of the past decade. In the case of canola, trucking premiums had all but been eliminated, having fallen from $2.48 per tonne in the 1999-2000 crop year to just $0.49 per tonne in the 2007-08 crop year. Still, the 2008-09 crop year saw these premiums more than double to $1.20 per tonne in a reflection of the unusually strong market demand for canola. However, the broader decline remains consistent with the grain companies' stated preference to use a single pricing tool, namely the basis, as the competitive mechanism by which they attract these commodities into their facilities.

Also worth noting is the degree to which the export basis can vary, whether in absolute or relative terms, between the nine geographic sampling areas used during the GMP. These variations encompass a myriad of individual differences in the applicable cost of freight, the FAF, elevation, and producer benefits. As a result, the export basis within any one area can vary significantly from the western Canadian average.

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Appendix 1: Program Background

On June 19, 2001, the Government of Canada announced that Quorum Corporation had been selected to serve as the Monitor of Canada's Grain Handling and Transportation System (GHTS). Under its mandate, Quorum Corporation provides the government with quarterly and annual reports aimed at measuring the system's performance, as well as assessing the effects arising from the government's two principal reforms, namely:

- The introduction, and gradual expansion of tendered grain movements by the Canadian Wheat Board; and

- The replacement of the maximum rate scale for rail shipments with a cap on the annual revenues that railways can earn from the movement of regulated grain.

In a larger sense, these reforms are expected to alter the commercial relations that have traditionally existed between the primary participants in the GHTS: producers; the Canadian Wheat Board; grain companies; railway companies; and port terminal operators. Using a series of indicators, the government's Grain Monitoring Program (GMP) aims to measure the performance of both the system as a whole, and its constituent parts, as this evolution unfolds. With this in mind, the GMP is designed to reveal whether the movement of grain from the farm gate to lake- and sea-going vessels (i.e., the supply chain) is being done more efficiently and reliably than before.

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

- *Series 1 – Industry Overview*
  Measurements relating to annual grain production, traffic flows and changes in the GHTS infrastructure (country and terminal elevators as well as railway lines).

- *Series 2 – Commercial Relations*
  Measurements focusing on the tendering activities of the Canadian Wheat Board as it moves towards a more commercial orientation as well as changes in operating policies and practices related to grain logistics

- *Series 3 – System Efficiency*
  Measurements aimed at gauging the operational efficiency with which grain moves through the logistics chain.

- *Series 4 – Service Reliability*
  Measurements focusing on whether the GHTS provides for the timely delivery of grain to port in response to prevailing market demands.

- *Series 5 – Producer Impact*
  Measurements designed to capture the value to producers from changes in the GHTS, and are focused largely on the calculation of "producer netback."

Appendix 2: Commodities Guide

To assist the reader of the Grain Monitor's reports, the following description of various commodities discussed is provided. These selections are taken from the CGC *Official Grain Grading Guide* – Chapter 27.

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

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

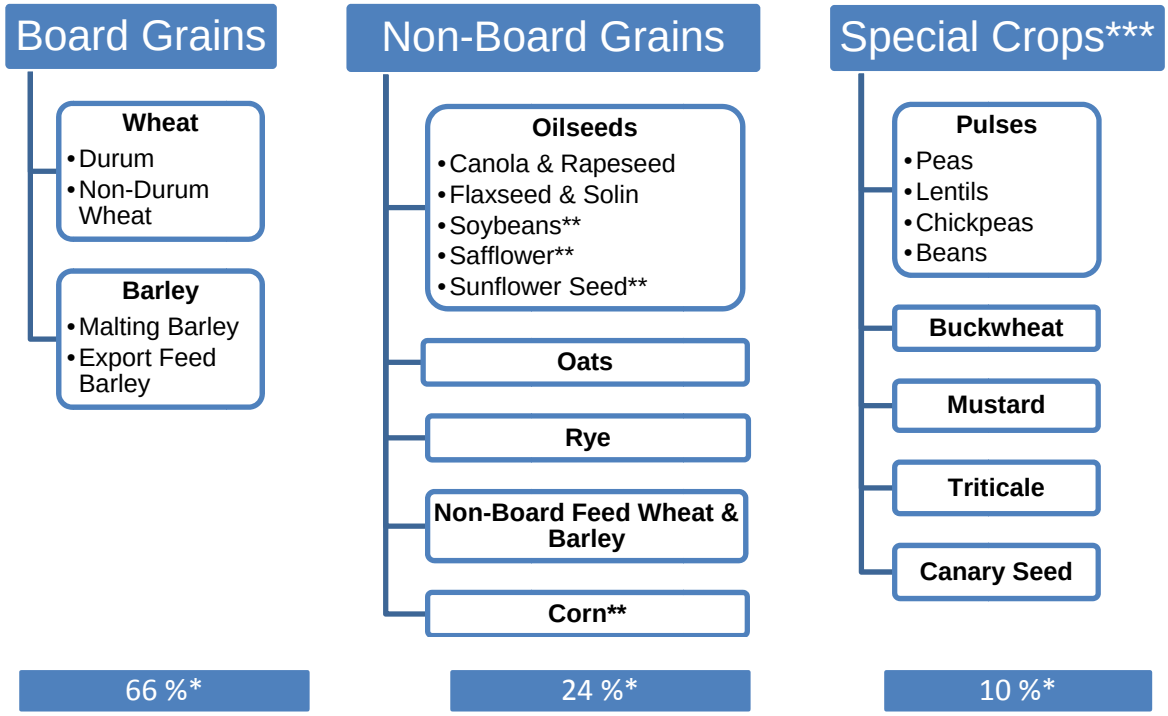
Non-Board Grain: Non-Board grain is grain marketed through the open market system. Such grain includes domestic feed wheat and barley, rye, oilseeds and specialty crops.

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

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

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

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



* Percent of shipments (railway volume) to four western ports in past five years
** Also may be considered special crops
*** Not all special crops as defined by the CGC are included under the umbrella of the Canadian Special Crops Association

Appendix 3: Producer Netback Calculator

A prime issue with many stakeholders is the impact that the shrinking GHTS network has had on the length of truck haul from farm gate to elevator. While all evidence suggests that truck hauls are increasing because of the reduced number of delivery points, the exact – or even approximate – amount of this increase is unknown. Following discussions with stakeholders and the government, a methodology that would allow the Monitor to gather the data necessary to enhance the quality and reliability of this component of the export basis has been developed.[164] The Producer Netback Calculator (PNC) was designed to provide a cost-effective and non-intrusive means of gathering this data.

At the same time, and in response to producers' requests, the Monitor will provide access to data on the costs associated with moving grain from farm-specific locations to export position (the export basis). These costs are the same ones reflected as deductions on cash tickets. The PNC has been designed to assist farmers in determining the delivery options that may provide the best returns for their wheat, durum and feed barley. When these costs are subtracted from the most recent CWB Pool Return Outlook (PRO), the resulting calculation of producer netback provides the best possible estimate of the real returns to be had for their grain.

To gain access to the PNC, producers are provided with their own personal log-in identification and password. Once they have logged into the system, all communication will be secured through 128 bit encryption technology, identical to that used by major banks to allow customers access to their accounts over the internet. This ensures that all information is communicated and held with the strictest confidentiality, while allowing the Monitor to classify data according to the demographics of the specific producer. Producers can be assured that no data specific to any individual will be published, or shared, by Quorum Corporation.

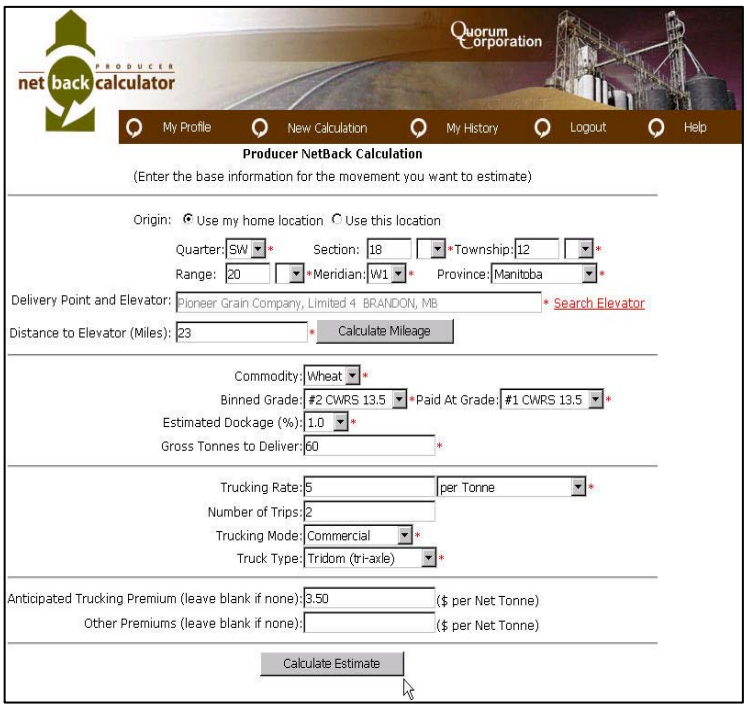


Figure A1: An image of the input screen for Quorum Corporation's Netback Calculator.

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

[164] The GMP currently incorporates trucking costs based on the commercial short-haul trucking rates for an average haul of 40 miles, as presented in Table 3A-1.

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

The Grain Monitoring Program will gain valuable data on grain logistics by retaining a record of the individual transactions that pertain to actual deliveries. In specific terms, this data will assist in analyzing the average length of haul to elevators, modal utilization, and other farm gate to elevator delivery issues. This information will be incorporated into the calculation of producer netback in future reports of the Monitor.

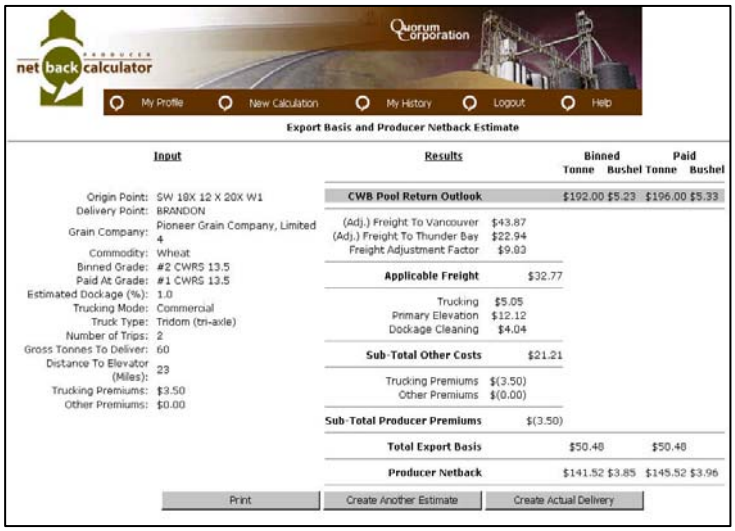


Figure A2: An image of the output screen for Quorum Corporation's Netback Calculator.

Appendix 4: Acknowledgements

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

Agricultural Producers Association of Saskatchewan
Agriculture and Agri-Food Canada
Alberta Agriculture, Food and Rural Development
Alberta Infrastructure and Transportation
Alliance Grain Terminal Ltd.
Alliance Pulse Processors Inc.
Canadian Canola Growers Association
Canadian Grain Commission
Canadian Maritime Chamber of Commerce
Canadian National Railway
Canadian Pacific Railway
Canadian Ports Clearance Association
Canadian Ship Owners Association
Canadian Special Crops Association
Canadian Transportation Agency
Canadian Wheat Board
Cando Contracting Ltd.
Cargill Limited
CMI Terminal
Fife Lake Railway Ltd.
Gardiner Dam Terminal
Government of British Columbia
Grain Growers of Canada
Great Sandhills Terminal
Great Western Railway Ltd.
ICE Futures Canada, Inc.
Inland Terminal Association of Canada
Keystone Agricultural Producers
Kinder Morgan Canada
Louis Dreyfus Canada Ltd.
Manitoba Agriculture, Food and Rural Initiatives
Manitoba Infrastructure and Transportation
Mission Terminal Inc.
National Farmers Union
North East Terminal Ltd.
North West Terminal Ltd.
OmniTRAX Canada, Inc.
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Paterson Grain
Port of Churchill
Port of Prince Rupert
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Prairie West Terminal
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