

**Monitoring the Canadian  
Grain Handling and  
Transportation System**



**First Quarter**  

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**2007-2008 Crop Year**

**1 Summary  
Report**



**Government  
of Canada**    **Gouvernement  
du Canada**





## **Foreword**

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In keeping with the federal government's Grain Monitoring Program (GMP), the ensuing report focuses on the performance of the Canadian Grain Handling and Transportation System (GHTS) for the three-month period ended 31 October 2007. In addition to providing a current accounting of the indicators maintained under the GMP, it also outlines the trends and issues manifest in the movement of western Canadian grain during the first quarter of the 2007-08 crop year.

As with previous quarterly and annual reports, the report is structured around a number of performance indicators established under 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

Although the indicators that follow largely compare the GHTS's current-year performance with that of the preceding 2006-07 crop year, they are also intended to form part of a time series that extends forward from the 1999-2000 crop year. As such, comparisons to earlier crop years are also made whenever a broader contextual framework is deemed appropriate.

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

**QUORUM CORPORATION**  
Edmonton, Alberta



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# **Findings**

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Comparatively hotter and drier growing conditions across much of the prairies proved largely responsible for a reduction in yield for the 2007-08 crop year. Harvesting was also slowed by the prevalence of cool, wet weather throughout much of the fall, which contributed to a reduction in overall grain quality. Still, global grain prices moved sharply higher in the face of tighter overall grain supplies brought on by drought conditions in Australia and the Ukraine. These conditions served to propel the price of most grains to record highs under the Grain Monitoring Program (GMP).

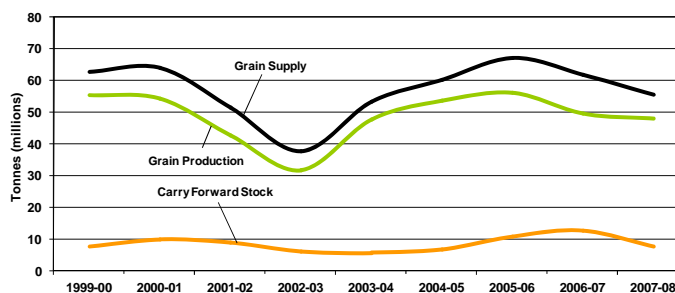
## **1.0 Industry Overview**

### **1.1 Grain Production and Supply**

Overall grain production for the 2007-08 crop year fell to 47.7 million tonnes, a decrease of 3.1% from the previous crop year's 49.3 million tonnes. This ranked as the fourth smallest crop witnessed under the GMP, and fell well below the record-setting 56.0 million tonnes produced in the 2005-06 crop year. Despite what amounted to a second consecutive reduction in output, total grain production remained well above that of recent drought years.<sup>1</sup> Much of this decline can be traced to the overshadowing effects of a 23.0% decrease in wheat production, which fell to 14.7 million tonnes from 19.1 million tonnes a year earlier. As was the case with most other grains, special crop production actually rose, increasing by 11.8% to 4.4 million tonnes.

Production for most of the producing provinces reflected the broader decline, with Alberta, Manitoba and Saskatchewan posting reductions of 5.9%, 3.4% and 1.3% respectively.<sup>2</sup> In keeping with this, the overall grain supply decreased by 10.5%, falling to 55.2 million tonnes from 61.7 million tonnes a year earlier. This reduction was amplified by the effects of a 40.0% decrease in the amount of stocks carried forward from the preceding crop year, which fell to a more normative 7.5 million tonnes as compared to the record 12.5 million tonnes that had been stockpiled a year earlier. Much of the impetus for this drawdown came as a result of the increasing global demand for grain and rising commodity prices.

**Figure 1: Western Canadian Grain Supply**



Notwithstanding the decline in Canadian grain production, heightened worldwide demand did much to increase the GHTS's handlings in the first quarter. Railway shipments for the period increased by 3.4% from that handled a year earlier, establishing a new GMP record of 7.3 million tonnes in the process.<sup>3</sup> Much of this gain was tied to a 63.5% increase in barley shipments, although gains were also registered by wheat and various non-CWB grains. The only significant declines in railway shipments were posted by durum and canola, which fell by 11.0% and 16.6% respectively. Collectively, special crop shipments posted a better-than-average gain of 13.3%, rising to 1.0 million tonnes in comparison to 0.9 million tonnes a year earlier.

<sup>1</sup> Grain production in the 2001-02 and 2002-03 crop years was adversely impacted by drought, and fell sharply below the region's typical 50-million-tonne output, to 42.5 million tonnes and 31.5 million tonnes respectively.

<sup>2</sup> Production in British Columbia actually increased, climbing by 57.3% to 208,600 tonnes. But this was not as significant a factor as the reductions posted by the three prairie provinces.

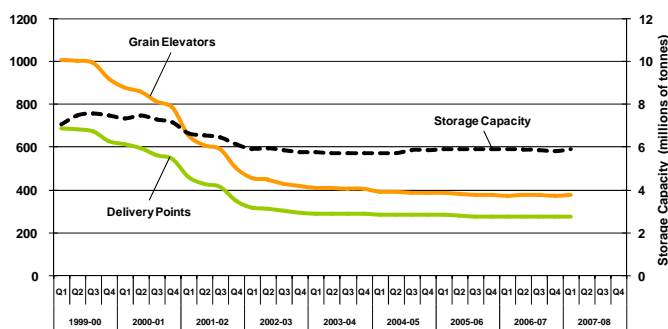
<sup>3</sup> In addition to setting a record for first-quarter volume, the 7.3 million tonnes shipped during this period also constituted the largest single value for any quarter under the GMP. The previous record had been set just a year earlier, with a total of 7.1 million tonnes having been handled in the first quarter of the 2006-07 crop year.

## 1.2 Country Elevator Infrastructure

As outlined in the Monitor's previous reports, although the country elevator network has continued to diminish in size, the pace of that reduction has abated significantly in recent years. The first quarter of the 2007-08 crop year marked a modest reversal of this trend, with a net increase of just four licensed elevators recorded for the period. Still, the 375 facilities forming the network at the end of October 2007 represents a net decrease of 62.6% from the 1,004 elevators that were in place at the beginning of the GMP.

The decline in elevator facilities has been accompanied by a largely parallel reduction in the number of grain delivery points at which they were located. However, during the first quarter, two grain delivery points were added to the existing system, increasing the total by 0.7% to 274. As with the elevator infrastructure itself, the delivery points that remained constituted just 40.0% of the 685 that were in place at the beginning of the GMP. Although these installations are distributed generally throughout western Canada, grain deliveries have been concentrated at about one-third of the system's delivery points. In the 2005-06 crop year, the last for which data is available, 80% of the tonnage delivered into the system was gathered at just 90 locations.<sup>4</sup>

**Figure 2: Grain Delivery Points, Licensed Elevators, and Licensed Elevator Storage Capacity**



When contrasted with the decline in the number of elevators and delivery points, the reduction in associated storage capacity has not been nearly as dramatic. Moreover, it reflects the rate at which the storage capacity of high-throughput facilities has replaced that of smaller elevators. As such, even though licensed storage capacity declined by over 1.2 million tonnes in the first eight years of the GMP, from 7.0 million tonnes to 5.8 million tonnes, the reduction amounted to just 17.3%. However, in the first three months of the 2007-08 crop year 76,300 tonnes of storage capacity was added to the system. This had the effect of increasing the overall storage capacity by 1.3%, to a total of almost 5.9 million tonnes.

These broad trends provide a clear indication of the evolution that has been taking place within the industry since the beginning of the GMP. The elevator network now comprises significantly fewer facilities, many with larger storage capacities and the ability to load railcars in trainload lots. It is worth noting that while only 11.9% of the system's elevators were able to load 50 or more railcars at a time when the GMP began, by the end of the first quarter that proportion had risen to a significantly greater 46.9%.

## 1.3 Railway Infrastructure

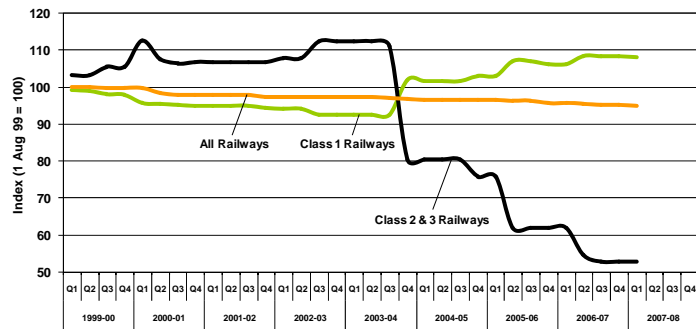
As previously reported, total railway infrastructure in western Canada has experienced a comparatively modest change since the beginning of the GMP. By the end of the 2006-07 crop year the network had been reduced by just 5.0%, to a total of 18,495.3 route-miles of track. Although 84.0% of this 972.9-route-mile reduction was derived from the abandonment of grain-dependent branch lines, there were significant changes in the makeup of the system that remained. Much of this stemmed from the transfer by CN and CP of various branch line operations to a host of new shortline railways; a process that began in the mid 1990s. Although this was but one element in a wider industry restructuring, it resulted in slightly more than one-quarter of the railway network being operated by smaller regional and shortline carriers.

<sup>4</sup> The most recent statistics available for grain deliveries by station are those from the 2005-06 crop year.



The waning financial health of shortlines at large prompted several of them to either sell or rationalize their own operations. In most instances, this resulted in shortlines reverting back to the control of the Class 1 carrier that had spun them off in the first place. Perhaps the most vivid example of this came in January 2006 when RailAmerica Inc. sold most of its holdings in western Canada back to CN.<sup>5</sup> Such shifts resulted in a significant realignment of Class 1 and non-Class 1 railway operations over the course of the last four years. By the end of the 2006-07 crop year, CN and CP directly managed a total of 16,023.3 route-miles of track, which constituted a net gain of 8.1% 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 47.3%, from 4,640.3 route-miles to 2,447.5 route-miles.

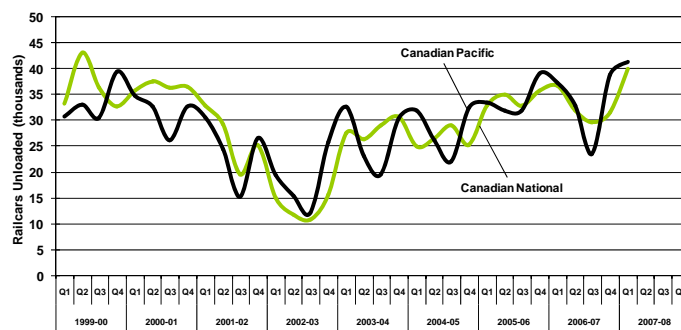
**Figure 3: Relative Change in Railway Infrastructure**



Despite their best efforts, most shortline railways were simply unable to reshape the economics that gave rise to the elevator rationalization activities of the grain industry as a whole. Consequently, their traffic volumes have largely been on the decline. Even though an increase in producer-car loading has helped compensate for the closure of some local elevators, the continuing erosion of shortline traffic volumes does not augur well for the future of those that remain. Shortline volumes fell by 49.1% in the first three months of the 2007-08 crop year while those of Class 1 carriers increased by 6.0%. Although there was no reduction in the number of licensed elevators served by shortline railways during the first quarter, the net reduction posted since the beginning of the GMP amounted to 82.9%, with just 14 remaining. This proved significantly greater than the 61.5% reduction in facilities served by the Class 1 railways during this same period. Equally telling has been the comparative decline in the associated storage capacities of these two elevator networks, which fell by 83.9% versus 11.0% respectively.

A further 24.5 route miles of infrastructure was removed from the railway system in the first quarter of the 2007-08 crop year all of which related to the abandonment of a portion of CP's Saskatchewan-based Outlook Subdivision north of Moose Jaw. This served to reduce the overall network by just 0.1% to 18,470.8 route-miles. The network plans of both CN and CP continue to show over 900 route-miles of railway infrastructure still being targeted for discontinuance over the next three years, with almost two-thirds of this amount currently belonging to CP.

**Figure 4: Terminal Elevator Unloads – Railway Carrier**



#### 1.4 Terminal Elevator Infrastructure

No changes to the licensed terminal elevator network in western Canada were recorded during the first three months of the 2007-08 crop year. At the close of the period, the network still comprised a total of 16 facilities with an associated storage capacity of 2.6 million tonnes.

A total of 81,083 carloads of grain were unloaded at these facilities during the first quarter. This represented an increase of 10.1% from the 73,620 handled during the same period a year earlier. Having originated 50.8% of

<sup>5</sup> The 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 cars that were unloaded during this period, CP again nudged out CN as the largest handler of export grain in western Canada. This share was only marginally greater than the 50.4% secured by CP during the first quarter of the previous crop year.

Although the record is somewhat mixed, CP has often outpaced CN's quarterly handlings since the 2002-03 crop year. In large part, this can be explained by a distribution in crop production that has tended to benefit CP rather than CN. Still, CN's efforts to promote its Prince Rupert gateway appear to have done much to help compensate for this. Through reduced freight rates and a better allocation of cars to the corridor, CN appears to have narrowed the overall differential in market share substantially – even if the gain has come at the expense of the carrier's own reduced handlings into Vancouver.<sup>6</sup>

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<sup>6</sup> Despite the fact that the number of cars unloaded at Vancouver by CN and CP in the first quarter increased, CN's share of the handlings at Vancouver were substantially below what they were a few years ago. Although, at 36.7%, CN's share of these handlings was consistent with what it had achieved a year earlier, it marked a 10-percentage-point reduction from the share value that had typically been observed under the GMP through to the end of the 2004-05 crop year. Conversely, CN's unloads at Prince Rupert have continued to break old records. With a year-over-year increase of 18.3% for the first quarter, the carrier's handlings again set a new record: 15,907 carloads.

## 2.0 Commercial Relations

### 2.1 Tendering Program

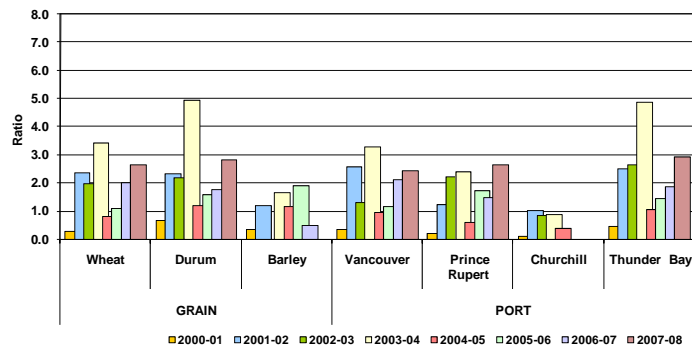
Owing to the changes brought forth in the 2003-04 crop year, the CWB continues to target a fixed 40% of its overall grain movements to the four ports in western Canada using a combination of tendering and advance car awards. Under the terms of the arrangement it has with its agents, the CWB is expected to tender up to a maximum of 20% of this volume in the 2007-08 crop year.

In the first quarter the CWB issued 52 tenders calling for the movement of 0.6 million tonnes of grain. This marked a 49.0% reduction from the 1.2 million tonnes put out for tender in the first quarter of the preceding crop year. As in most previous crop years, the most substantive portion of this tonnage, 76.9%, again related to the movement of wheat.<sup>7</sup> Durum accounted for the remaining 23.1% as there were no calls issued for barley during the period.

In an unusual turn of events, tender calls issued in favour of Thunder Bay rose by a factor of four in the first quarter, increasing its share to 38.4% from 8.9% a year earlier. Driven in large part by its allocation of all the durum tenders, Thunder Bay became the largest designated export gateway for tendered grain shipments. Prince Rupert, which despite having once again displaced Vancouver as the principal destination for movements to the west coast, saw its overall share slip to 31.7% from 52.5% twelve months before.<sup>8</sup> With Vancouver's allocation having fallen for a third year in a row, it took third place in the rankings, with a share of 29.9% as compared to 38.6% a year earlier.<sup>9</sup> For a third consecutive year, no tenders calling for delivery of grain to Churchill were issued.

The calls issued by the CWB were met by 219 tender bids offering to move an aggregated 1.6 million tonnes of grain, about two-and-a-half times the volume sought. The scope of this bidding generally showed a marked increase in intensity as compared to that exhibited in either of the three preceding crop years.<sup>10</sup> Using the ratio of tonnage-bid to tonnage-called to measure grain company reaction, a broad increase in the response rates of the bidders was observed. Durum showed the steepest relative gain in the response rates tied to individual grains, its ratio having climbed by 59.8%, to 2.8 as compared to 1.8 for the previous crop year as a whole. Similarly, the response rate for wheat also rose by a lesser 31.8%, to 2.6 from 2.0 in the 2006-07 crop year. Only barley showed a marked decrease in bidding activity as no tenders, save for that of malting barley, were issued in the first quarter.

Figure 5: Tendered Volume – Ratio of Tonnage Bid to Tonnage Called



<sup>7</sup> This was not the case in the first quarter of the 2005-06 crop year when barley, owing to a sizable short-term movement, actually displaced wheat as the largest single grain put out for tender.

<sup>8</sup> Much of the relative reduction in Prince Rupert's share was due to the elimination of all tender calls for barley in the first quarter. A year earlier, the port had been the designated destination for 0.6 million tonnes of tendered barley, almost three-quarters of the total issued in the first quarter of the 2006-07 crop year.

<sup>9</sup> Vancouver's share of the tonnage put out for tender has been declining since the 2004-05 crop year, when it was accorded a record 70.9% of the total.

<sup>10</sup> The contrast presented here largely relates to the bidding activity exhibited since the 2001-02 crop year since meaningful comparisons with the 2000-01 crop year cannot be drawn as a result of the industry's limited participation in the CWB's new tendering program at that time.

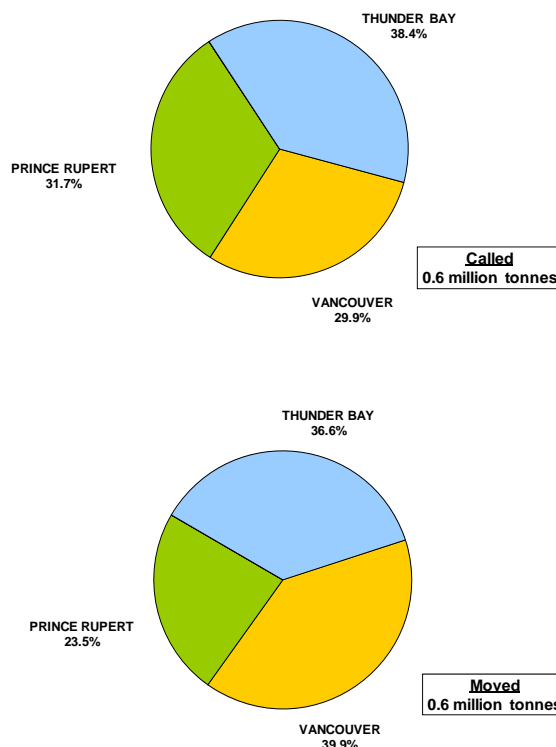
Some pronounced changes in the response rates for the port specified in the tender calls were also evident. In particular, the ratio associated with grain intended for delivery at Prince Rupert increased by 81.6%, to 2.6 in the first quarter as compared to a ratio of 1.5 for the previous crop year as a whole. The ratios noted for Vancouver and Thunder Bay also reached substantially above the 2.0 mark, attaining values of 2.4 and 2.9 respectively.<sup>11</sup>

In large part, these better response rates reflected the competition that had been stimulated as a result of a reduction in the amount of grain put out for tender. This was also reflected in a reduction in the proportion of the tender calls that went unfilled, which fell to 12.0% in the first quarter as compared to 33.9% for the 2006-07 crop year as a whole. Even so, this overall value ignores the proportions attributable to specific ports. A closer examination of these individual values reveals that over half of the unfilled volume, 59.8%, was tied to tender calls issued in favour of Prince Rupert. Moreover, its unfilled proportion proved to be significantly greater than that for either Vancouver or Thunder Bay: 22.7% versus 5.4% and 8.4% respectively.<sup>12</sup>

The skewed nature of these results reflected the disinclination of grain companies having terminal facilities in Vancouver to bid as aggressively on tenders issued in favour of Prince Rupert. This preference for Vancouver has led to somewhat less competitive bids on tenders for Prince Rupert.<sup>13</sup> Whereas there was little difference between the maximum discounts advanced on wheat tenders to Vancouver and Prince Rupert in the 2005-06 crop year, the discounts put forward by the major grain companies tended to favour Vancouver by as much as \$9.00 per tonne a year later. This continued to be the case in the first quarter of the 2007-08 crop year where the differential increased to a marginally greater \$9.15 per tonne.

And while a reduction in the number of tenders issued seemed to have stimulated overall bidding activity in the first quarter, the discounts advanced for the movement of wheat and durum fell back sharply in comparison to those put forward in the 2006-07 crop year.<sup>14</sup> The maximum discounts recorded in the first three months of the 2007-08 crop year declined by 13.2% in the case of wheat, to \$21.28 per tonne; and by a more substantial

**Figure 6: Tendered Grain – Cumulative Volumes to 31 October 2007**



<sup>11</sup> With no tender calls having been issued for Churchill, the ratio of tonnage-bid to tonnage-called remained at zero.

<sup>12</sup> For the 2006-07 crop year as a whole, the unfilled proportion attributable to tender calls issued for Prince Rupert, Vancouver and Thunder Bay amounted to 43.8%, 29.7% and 20.7% respectively.

<sup>13</sup> Shareholders of the Prince Rupert Grain facility all hold a larger stake in facilities in Vancouver, providing them an incentive to give preference to a Vancouver routing where they do not have to share in the terminal revenues. Some shareholders are also concerned with the single-carrier service to Prince Rupert, and a lack of a competitive alternative.

<sup>14</sup> The tender bids advanced by the grain companies are typically expressed as a discount to the CWB's Initial Payment.

51.2% on potential movements of durum, to \$10.52 per tonne.<sup>15</sup> There were no instances where the CWB was required to pay a premium for tendered grain movements.<sup>16</sup>

During the first three months of the 2007-08 crop year, the CWB awarded a total of 79 contracts for the movement of an aggregated 0.6 million tonnes of grain.<sup>17</sup> This represented a decrease of 13.0% from the 0.7 million tonnes handled in the first quarter of the previous crop year. As opposed to the destinations specified in the tender calls, the largest proportion of the grain shipped, 39.9%, was destined to the port of Vancouver. Thunder Bay and Prince Rupert followed in turn with shares of 36.6% and 23.5% respectively.

As previously observed by the Monitor, the vast majority of the grain moved under the CWB's tendering program did so in blocks of 25 or more railcars. For the first quarter of the 2007-08 crop year, 93.7% of the tendered grain volume moved in such blocks. This proportion proved to be only marginally above the 93.2% recorded for the entire 2006-07 crop year. Even so, movements in blocks of 50 or more cars decreased slightly in the first quarter, to 74.5% from the previous crop year's overall 77.7% proportion. This was due in large part to a modest increase in movements incorporating blocks of 25-49 cars, which rose by 3.8 percentage points to take a 19.3% share.

High-throughput elevators remained the leading originators of tendered grain shipments. During the first quarter, 90.7% of the tendered tonnage was shipped from these larger facilities. Although this proportion proved somewhat superior to the 86.3% recorded for the 2006-07 crop year as a whole, it also ranked as the largest quarterly share posted under the GMP.<sup>18</sup>

In terms of originating carriers, CP retained its position as the largest handler of tendered grain in the first quarter. With 58.0% of the volume, the carrier easily outdistanced CN's 42.0% share. CP's first quarter share proved to be consistent with the 57.5% it had secured for the 2006-07 crop year as a whole.

In aggregate, 14.4% of the CWB's total grain shipments moved under tender to western Canadian ports in the first quarter of the 2007-08 crop year. As the 0.6 million tonnes of tendered grain handled during this period trailed what it had been a year earlier, the CWB reported that its Transportation Savings fell by 28.6%, to \$6.5 million from \$9.1 million.<sup>19</sup> Much of this reduction can be attributed to a decrease in volume.

## **2.2 Advance Car Awards Program**

The 2007-08 crop year marked the commencement of the fifth season for the CWB's advance car awards program, with slightly more than 0.3 million tonnes of grain having been moved under it in the first quarter. This constituted just 7.4% of the total grain volume shipped by the CWB to western Canadian ports during the period. Moreover, when considered alongside the 0.6 million tonnes of tendered grain already discussed, just 21.8% of the CWB's total grain shipments moved under the umbrella of these two programs.

The composition of the grain shipped under the CWB's advance car awards program in the first quarter differed from that moved under its tendering program in several respects. The first of these related to the fact that not nearly as much barley was shipped under the advanced car awards program. As a result, wheat and durum took larger shares of the movement. Wheat, which continued to be the foremost grain handled, accounted for 0.2 million tonnes and 73.1% of the program's overall volume. This was followed in turn by another 0.1 million

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<sup>15</sup> These discounts fell below the 2006-07 crop year's maximums of \$24.51 per tonne on wheat, and \$21.56 per tonne on durum.

<sup>16</sup> In the 2006-07 crop year, the CWB was required to pay premiums of as much as \$16.00 per tonne on tendered movements of feed barley.

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

<sup>18</sup> The previous record was set in the 2000-01 crop year, when 90.3% of the tendered grain volume moved from high-throughput facilities.

<sup>19</sup> The CWB defines its Transportation Savings as the savings in transportation costs it realizes from the discounts advanced by the successful bidders under the tender program, all freight and terminal rebates, and any financial penalties it may assess for non-performance.

tonnes of durum, which represented 26.2% of the total, and a residual 2,100 tonnes of barley, which made up the remaining 0.7%.

However, the most interesting differences proved to be in the amount of grain shipped to each of the four ports. Thunder Bay, which had ranked second among tendered grain destinations with a 36.6% share, received the largest share of the volume shipped under the advance car awards program, 47.7%. Shipments to Prince Rupert were also substantially greater, accounting for a 36.2% share as compared to 23.5% under the tendering program. However, such was not the case for Vancouver, which saw its share under the advance car awards program fall well below that secured under the tendering program; garnering 16.1% versus 39.9% respectively. As with tendered grain shipments, Churchill had no grain movements under the advance car awards program.

As was the case with tendered grain shipments, the vast majority of the grain moved under the advance car awards program, 85.5%, originated at high-throughput elevators. This, however, proved to be somewhat below the 90.7% share cited earlier for tendered grain shipments. CP also handled the majority of this grain, taking a marginally lower 55.6% share as compared to a 58.0% share on tendered grain.

When compared to tendered shipments, a significantly lesser volume of the grain shipped under the advance car awards program moved in blocks of 25 or more cars. This is because the cars allocated to shippers under the advance car awards program are often integrated with those obtained through the tendering program as a means of optimizing individual block or train movements. As such, this practice effectively dilutes the values that are obtained for the aggregate volume moved under the two programs. By way of example, 86.7% of this total volume moved in blocks of 25 or more railcars as compared to 93.7% for tendered grain alone. Similarly, the average overall size of these blocks amounted to 50.8 cars versus an average of 55.5 cars for tendered grain.

## 2.3 Other Commercial Developments

### 2.31 Grain Industry Again Seeks Redress on Railway Service Issues

Stakeholder complaints over railway service and car allocation have increased in recent 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 increasing fire from shippers who argued that they were being shortchanged by the preference given to unit trains ordered through the railways' advance products.

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

Figure 7: Western Canadian CWB Grain Volumes

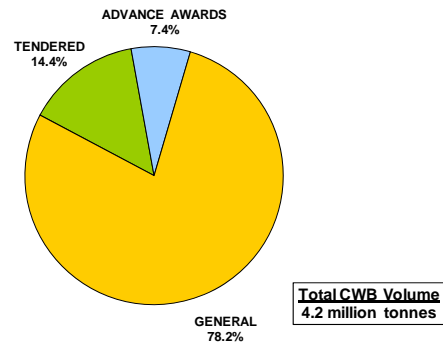
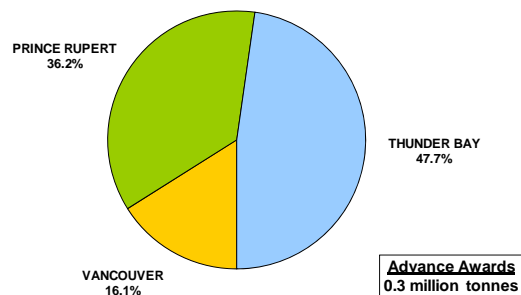


Figure 8: Advance Car Awards – Destination Port



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. 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.

In July 2007, the Agency determined that CN's car allocation practices had indeed 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.<sup>20</sup> Of particular interest was the fact that the Agency also found the difficulties encountered by GNG were not isolated, but rather the product of a widespread systemic failure.

In addition to directing that CN make reasonable accommodation for GNG's specific transportation needs, the Agency also ordered the carrier to undertake a number of broader corrective measures. Foremost among these were the requirement that CN allot and distribute equipment used in the movement of grain in a manner that was fully transparent and nondiscriminatory; that this equipment be maintained in sufficient number so as to allow the carrier to meet its level-of-service obligations; that at least 50% of its available hopper car fleet be set aside for general distribution to grain shippers; and that the maximum block size under its advance products be set at 50 cars (which could then be combined to form 100-car blocks by shippers wishing to do so).

With its implications for the industry at large, many of the GHTS's smaller shippers looked upon the Agency's decision with favour. Moreover, as CN had been ordered to implement these remedies by 1 August 2007, they anticipated 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 changes brought forward by CN in August 2007 did little to mollify the concerns that had been raised by these stakeholders.

On 5 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.<sup>21</sup> 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 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.

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 brought forward, an attempt to utilize the Agency's mediation option was undertaken shortly after the complaint was filed. However, by the end of September 2007 this effort at reconciliation had also met with failure, and the complaints were allowed to proceed.

In mid October 2007 the Agency issued its first decision in the matter and rejected the call for an interim order that would set aside the carrier's advance programs, ruling that it could not find 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. With the Canada Transportation Act prescribing 120 days for the Agency to rule in the matter, a decision was not expected before January 2008.

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<sup>20</sup> See Canadian Transportation Agency Decision Number 344-R-2007, dated 6 July 2007.

<sup>21</sup> There were in fact six separate complaints filed with the CTA 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 come 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 CTA chose to address the complaints collectively.

### 2.32 Federal Government Concludes New Operating Agreements with CN and CP

Following the federal election of 23 January 2006, the newly installed Conservative government reversed the previous Liberal government's decision to transfer its fleet of covered hopper cars to the Farmer Rail Car Coalition (FRCC).<sup>22</sup> These 11,900 cars had been provided to both CN and CP under an operating agreement that allowed both carriers to use them as part of their general grain fleets.<sup>23</sup> While both railway companies supplemented these cars with their own equipment in order to meet prevailing market demand, the public fleet has always been the principal asset employed in moving grain. In choosing to retain ownership of the fleet, the federal Minister of Transport, Infrastructure and Communities indicated that this had been done to maximize the benefits accruing to farmers and taxpayers alike.

In the year that followed, Transport Canada began to negotiate new agreements with CN and CP to replace the former operating agreement. Under the general terms of the agreements that had been individually concluded with CN and CP by the beginning of the 2007-08 crop year, the government would continue to provide these cars to the railways free of ownership costs so long as they were used to transport grain. These agreements cover the refurbishment, maintenance and operation of the cars. This meant that there would be no resultant increase in the carriers' revenue caps as a result of any car hire incurred from their transfer to a third party such as the FRCC. One condition of the agreements will see the government performing annual inspections of the fleet to ensure the agreed upon refurbishment has been undertaken and biannual inspections to ensure that the cars are being maintained at an acceptable level.

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. A subsequent examination into the matter revealed that the railways' actual maintenance costs did in fact fall well below the allowances granted for this under the revenue cap. To correct this, the federal government brought forward an amendment to the *Canada Transportation Act* that would permit a one-time adjustment to the maintenance allowances accorded to CN and CP under the revenue cap.<sup>24</sup> 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. However, by the close of the first quarter the Agency had still not made its final determination, although the railways had already been advised of an interim estimate and its impact on the Volume Related Composite Price Index.

Notwithstanding this adjustment, an important facet of the new agreements provided for the refurbishment, and longer term replacement, of this aging fleet.<sup>25</sup> An important dimension to this was that although the capacity lost through attrition would be replaced, it need not necessarily be on a car-for-car basis. That is to say that the railways could replace these comparatively smaller, older cars with the equivalent capacity provided by their substitution with jumbo hoppers, which has become the industry norm. Similarly, an improvement in the car cycle could also be used to counter capacity lost through attrition without replacing a car physically.

By the end of the first quarter this process appeared to be under way. Moreover, CN was reported to have already begun scrapping many of the aluminum hoppers that had been identified as unfit for further service.

### 2.33 Port of Churchill Witnesses a Sharp Increase in Volume

As has been noted in previous reports issued by the Monitor, the port of Churchill has struggled with declining volumes for several years. In the 2002-03 crop year, shipments moving through the port reached a GMP low of

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<sup>22</sup> A more detailed reporting on the events leading up to this decision can be found in the Monitor's Annual Report for the 2005-06 crop year.

<sup>23</sup> Over time, attrition has diminished the 13,000 covered hopper cars that were originally in the federal government's fleet. By the beginning of the 2007-08 crop year an estimated 11,900 cars remained. In addition, this fleet had at one time also been supplemented by another 6,000 cars: 2,000 of which were owned by the CWB; 2,000 administered by the CWB on leases paid by the federal government; 1,000 owned by the government of Alberta, and 1,000 owned by the Saskatchewan Grain Car Corporation.

<sup>24</sup> By more closely aligning this compensation with the actual cost of maintaining the hopper cars, it was estimated that allowable carrier revenues would be reduced by as much as \$2.00 per tonne.

<sup>25</sup> The refurbishment centered on upgrading the cars to reflect the railways commitment to maintain the cars in good operating condition throughout the remainder of their service life. Some cars are to be upgraded to allow for heavier axle loading.



351,900 tonnes. At that time the Port of Churchill Advisory Board warned that another such shipping season might well prove ruinous.

In response, the Manitoba government moved to provide the port with an interim package of financial support, which was complemented by additional funds from the federal government. With a renewed focus on attracting new business to the port, these efforts appeared to have yielded positive results in the 2003-04 crop year, where throughput increased to 542,700 tonnes and the traffic base broadened to include peas, canola and other non-CWB grains. Even so, the amount of grain passing through this northern port over the course of the next three crop years seldom exceeded 0.5 million tonnes.<sup>26</sup> Furthermore, this volume constituted about half of the 1.0 million tonnes that many claimed was necessary for the port's long-term commercial success.

However, the volume of grain that passed through Churchill in the first quarter of the 2007-08 crop year proved to be the largest recorded for the period under the GMP: a total of 593,200 tonnes.<sup>27</sup> More importantly, there were a number of distinctions for the port in this result. Perhaps the most noteworthy pertained to a modest shipment of milling wheat to Halifax. Using an arctic supply vessel that would otherwise have returned empty to Montreal, a total of 11,600 tonnes was shipped as a domestic backhaul movement. This constituted the first instance where marine transportation was employed to move grain between Churchill and a destination within Canada. Although such movements are constrained by the limited number of vessels engaged in bringing supplies to the country's northern communities, it clearly demonstrated that an alternative to interregional railway and seaway shipments was possible.

At the same time, a vessel carrying an inbound load of fertilizer from Russia also called at the port. This proved to be an important milestone for Churchill in as much as it marked the first time in many years that foreign imports actually entered the country through the port. Moreover, since this ship also picked up a load of wheat bound for Italy, it also demonstrated that two-way trade – a long-cherished goal of the port – was in fact possible.

Finally, all of this served as a backdrop for Canada's prime minister in announcing that an additional \$68 million in federal, provincial and private funds would be invested in the railway line that serves the port, as well as additional port facilities. The largest portion of this, \$60 million, was earmarked for improvements to the infrastructure operated by the Hudson Bay Railway, with contributions being divided equally between the Government of Canada, the Government of Manitoba and the railway's owner, OmniTRAX Inc. The line has reportedly suffered from the effects of chronic maintenance underfunding, which has not only slowed trains moving over it, but also resulted in the periodic interruption of service altogether. The remaining \$8 million, which was largely reserved for the expansion of storage facilities at Churchill, was to be shared evenly by the federal and provincial governments.

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<sup>26</sup> Churchill-destined grain is loaded into vessels during a shipping season that normally extends from late July to early November, but which straddles two crop years.

<sup>27</sup> The previous GMP record for first-quarter volume came in the 2000-01 crop year when a total of 580,500 tonnes of grain passed through the port of Churchill.

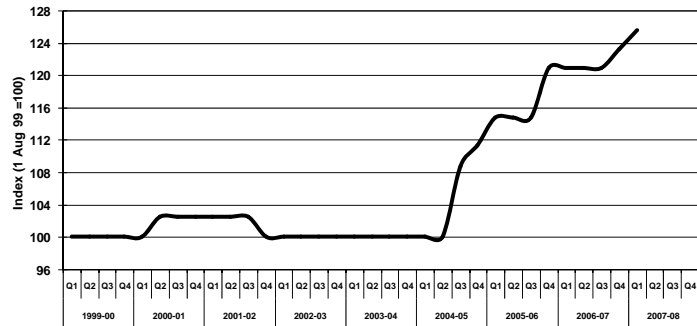
## 3.0 System Efficiency and Service Reliability

### 3.1 Trucking

Commercial trucking rates increased by a further 1.9% in the first three months of the 2007-08 crop year, after having risen by 23.2% over the course of the preceding three-year period. This increase ultimately reflected the effects of rising input costs, most notably for fuel and labour. An increase in 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.

Although fuel costs have proven volatile, crude oil prices have been on the rise since the end of the 2006-07 crop year. The price of West Texas Intermediate crude oil increased by a factor of 20% in the first quarter, rising from about \$75 US per barrel to \$90 US per barrel. This increased inflationary pressure resulted in the composite price index for short-haul trucking rising to 125.5 by the close of the period.

Figure 9: Composite Index – Short-Haul Trucking



### 3.2 Country Elevators

Total country elevator throughput, measured by shipments from primary elevator facilities, increased by 9.4% in the first three months of the 2007-08 crop year, rising to 9.4 million tonnes from 8.6 million tonnes in the same period a year earlier. As was the case twelve months before, this proved to be a new record for throughput under the GMP. The increase in tonnage was also reflected in a higher capacity turnover ratio for the primary elevator system as a whole, which climbed by 5.9% to 1.8 turns in the first quarter. To an extent, the higher turnover ratio was supported by a further 10,800-tonne reduction in storage capacity over the preceding twelve-month period. Moreover, the effects of an accumulated 1.2-million-tonne net reduction in storage capacity over the last eight crop years have helped improve the turnover ratio substantially. The progressive increase in these quarterly values continues to emphasize the fact that the GHTS's remaining primary elevator network is handling comparatively more grain than at any other point in the GMP's history.<sup>28</sup>

The amount of grain maintained in inventory decreased by 3.8% in the first quarter, falling to a weekly average of 2.9 million tonnes as compared to 3.0 million tonnes a year earlier. Although much of this reduction appears to be tied to an overall increase in system activity, this inventory level proved to be consistent with many of the quarterly averages recorded over the preceding four crop years, and well below the higher values posted in the program's first two years.<sup>29</sup> Along with a reduction in the overall stock level, the amount of time spent by grain in inventory during the first quarter also declined, falling by 7.3% to an average of 29.2 days as compared to 31.5 days twelve months before. This suggests that grain inventories were turning over faster in the face of increased commercial activity.

These forces served to reduce the overall average weekly stock-to-shipment ratio for the period by 12.8%, which fell to 4.1 from the 4.7 scored a year earlier. Even so, this value affirms that grain inventories were still

<sup>28</sup> Comparatively, the annualized equivalent of the volume of grain that was shipped from the primary elevator system in the first quarter would have yielded a capacity turnover ratio of 7.2. This ratio far exceeds those recorded in the first eight years of the GMP, and easily surpasses the 6.5 realized as a previous best a year earlier.

<sup>29</sup> Country elevator stocks have generally been falling in conjunction with the overall reduction in the system's storage capacity. Despite periodic fluctuations, the quarterly value remains well below the record average of 4.1 million tonnes, which was set in the second quarter of the 1999-2000 crop year.

more than sufficient to meet the prevailing demand, and that the grain companies faced few challenges in sourcing product during this period.

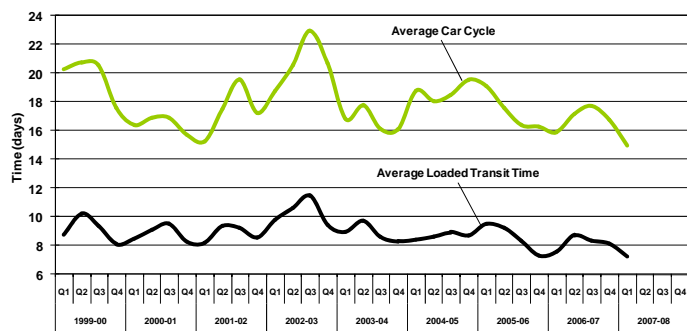
### 3.3 Railway Operations

The volume of grain moved in covered hopper cars during the first quarter increased by 2.7%, climbing to 7.1 million tonnes from 6.9 million tonnes a year earlier. With originations of 6.9 million tonnes, the Class 1 carriers posted a gain in volume of almost 0.4 million tonnes, or 6.0%, for the period. This represented a share of 97.1%, which denoted a noticeable gain over the 94.0% share held twelve months earlier. Conversely, shortline-originated volumes, which amounted to 0.2 million tonnes in the first quarter, fell by 49.1%. Although much of this reduction was directly attributable to the absorption by CN of the Savage Alberta Railway in the second quarter of the 2006-07 crop year, it continued to underscore the broader trend that has increasingly disfavoured shipments from the non-grain-dependent network.<sup>30</sup> Moreover, the volume reduction noted for shortlines came despite a 62.6% increase in producer-car loadings for the period.<sup>31</sup>

#### 3.31 Car Cycles

The railways' average car cycle for the first quarter declined by 6.0% from that posted a year earlier, to 15.0 days from 15.9 days. Without exception, improvements were noted in each of the operating corridors. The Thunder Bay corridor posted the largest overall reduction, 12.1%, which pulled the average down to 14.3 days from 16.2 days a year earlier. The Prince Rupert corridor posted the next largest reduction, with its overall average falling by 5.9% to 13.6 days. A 1.6% improvement in the Vancouver corridor resulted in a 16.3-day average versus that of 16.6 days twelve months before, and the lowest value recorded in several years.<sup>32</sup>

Figure 10: Average Railway Car Cycle



These improvements extended equally to the average car cycle's loaded and empty transit time components. In the case of the former, the average loaded transit time fell by 4.1%, to a first-quarter value of 7.3 days from 7.6 days a year earlier. As for the average empty transit time, the betterment amounted to 7.6%, with the quarterly average having fallen to 7.7 days from 8.3 days.

The groundwork for these gains was founded in improvements for both CN and CP, where the average car cycle fell by 5.7% and 6.0% respectively. The results were somewhat mixed with respect to their loaded and empty transit times. Although CN posted a 7.9% reduction in its average loaded transit time, the average for CP actually increased by 1.4%. However, both railways showed reductions in their average empty transit times, which fell by 3.1% and 11.4% respectively.

These gains resulted in overall averages for the period that proved to be the best yet recorded under the GMP. CN in particular has made significant strides in narrowing the performance gap that it had opened with CP

<sup>30</sup> Grain traffic originated by the Savage Alberta Railway was reclassified as Class-1 originations beginning in December 2006. The volume comparisons made here partially reflect the impact of this change.

<sup>31</sup> Producer-car loading has increased significantly in recent years. Although this has largely been facilitated by the advent of license-exempt producer loading facilities, the conversion of previously closed elevators into producer-car loading sites has also helped. With the erosion of their conventional grain business, shortline railways have grown highly dependent on the volumes shipped in producer cars.

<sup>32</sup> The first quarter's 16.3-day average is undercut only by the 2001-02 crop year's first quarter average of 15.3 days.

almost three years before.<sup>33</sup> Although a greater emphasis on unit train operations in the Vancouver and Thunder Bay corridors has been instrumental in this, the increased volume of grain being shipped to Prince Rupert – and which now consistently post some of the lowest corridor averages – has had an equally important effect on improving overall efficiency.

### 3.32 Railway Freight Rates

As outlined in the Monitor's previous reports, CN and CP broke with the practice of advancing largely parallel rate adjustments 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. 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. This new process was aimed at maximizing the revenues that the carriers were entitled to receive under the revenue cap. Moreover, both CN and CP have become quite skilful at managing their revenues within this regulatory framework.

The 2006-07 crop year brought even more fundamental changes to the structure of the rates that had existed until then. The most striking element in this was CN's decision to replace what had been generally applicable per-tonne rates with commodity-specific, per-car charges.<sup>34</sup> Owing to inflationary pressures brought on largely by increased fuel costs, the rates associated with moving a single carload of wheat rose by factors that ranged from a low of 7.3% to a high of 12.1%, depending on the corridor and carrier involved.

For the 2007-08 crop year, both railways brought forward rate increases that clearly exceeded the 6.3% reduction that the Canadian Transportation Agency indicated would ensue as a result of a one-time adjustment to its Volume-Related Composite Price Index.<sup>35</sup> By the end of the first quarter CN had applied a general increase of 1.0% on the single-car rates found in most corridors, although it again reduced those applicable on movements to Prince Rupert, which on the whole were rolled back by about 5.5%. This action served to widen the differential that had been opened between Vancouver and Prince Rupert rates to about 7.5% in the latter's favour.<sup>36</sup> CN also finalized its transition to the publication of these rates as per car, rather than per tonne, charges.<sup>37</sup> CP did much the same, increasing its rates in the Vancouver and Thunder Bay corridors by 0.8% and 0.3% respectively, while also converting their tariffs to per-car charges.

With these adjustments, the overall increase in rates since the beginning of the GMP was brought to 17.1% for movements in the Vancouver corridor, and 18.8% for movements in the Thunder Bay corridor. Although similar

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<sup>33</sup> CN returned to the practice of using grain to fill-out its manifest trains early in the 2004-05 crop year. This resulted in a significant elongation of the loaded and empty transit times for CN movements. With CP's continued focus on moving grain in unit trains, the comparative averages for these two carriers began to diverge. This ultimately manifested itself in a measurable performance advantage for CP. Since CN renewed its focus on moving grain in unit-train service early in the 2005-06 crop year, this gap in comparative performance has narrowed appreciably.

<sup>34</sup> 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.

<sup>35</sup> The revenue cap is adjusted annually for inflation by the Canadian Transportation Agency. For the 2007-08 crop year, the Agency had initially determined that the Volume-Related Composite Price Index used to accomplish this was to be increased by 3.2%. See Canadian Transportation Agency Decision Number 211-R-2007 dated 27 April 2007. However, since the federal Minister of Transport, Infrastructure and Communities had requested the Agency make a one-time adjustment to this index in order to align the imbedded costs for maintenance in the Revenue Caps with the actual costs incurred by the railways. This inflationary increase was later varied, with a projected 6.3% reduction being substituted. See Canadian Transportation Agency Decision Number 388-R-2008 dated 31 July 2007. Both CN and CP indicated that they would be appealing aspects of this latter decision to the Federal Court.

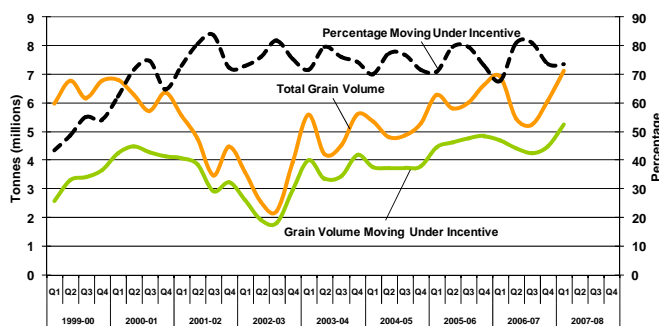
<sup>36</sup> At the beginning of the GMP, single car rates for grain moving to Prince Rupert were about 13% greater than those applicable on its movement to Vancouver. The actions taken by CN in reducing its rates in the Prince Rupert corridor over the course of the last several years denotes a significant change in its pricing strategy, and one that has resulted in a substantial increase in volume for this more northerly port.

<sup>37</sup> The rates applicable on the movement of non-CWB grains had been converted to per-car charges a year earlier. Those pertaining to CWB grains were changed to per-car charges beginning with the 2007-08 crop year.

for both CN and CP, the increases posted by CN have marginally exceeded those put forth by CP during this eight-year period.<sup>38</sup>

There were no significant changes to the monetary incentives offered by the railways on multiple-car movements in the first quarter. For CN the discounts offered on movements in blocks of 50-99 cars remained at \$3.00 per tonne, as did the \$7.00 per tonne incentive offered on movements of 100 or more cars. By the same standard, the \$4.00-per-tonne discount advanced by CP for movements in blocks of 56-111 cars was also unaltered, as was its \$7.50-per-tonne maximum on shipments in blocks of 112 cars.<sup>39</sup> Both carriers, however, continued to emphasize the advance booking options to which these discounts have increasingly been linked.<sup>40</sup> As was cited earlier, these programs – and more particularly, those offered by CN – have come under increasing attack from those who argue that they discriminate against smaller shippers. However, it remains to be seen whether the level-of-service complaints launched early in the first quarter will precipitate any significant future change in these programs.<sup>41</sup>

Figure 11: Railway Volume Moving Under Incentive



The quantity of grain moved under the railways' incentive programs during the first quarter increased by 11.5%, to 5.2 million tonnes from 4.7 million tonnes a year earlier. This resulted in a 15.0% increase in the value of the discounts earned by shippers, which rose to a total of \$28.2 million from \$24.5 million a year earlier. This latter gain was aided in part by a further migration towards the use of larger car blocks, which helped increase the first quarter's average-earned discount by 3.2%, to \$5.39 per tonne from \$5.23 per tonne twelve months before.

### 3.4 Terminal Elevator and Port Performance

#### 3.41 Terminal Elevators

A total of 7.1 million tonnes of grain passed through the terminal elevators of Canada's western ports in the first quarter of the 2007-08 crop year. This marked an 18.5% increase over the 6.0 million tonnes handled in the same period a year earlier. Moreover, the volume gain was distributed quite broadly between each of the four ports.

Accounting for almost half of the overall throughput, Vancouver again proved itself to be the largest export gateway. Total throughput for the port increased by 18.1%, and climbed to 3.3 million tonnes from 2.8 million tonnes a year earlier. Even so, this gain was marginally outpaced by Prince Rupert, where a 21.3% increase resulted in the posting of yet another first quarter record of 1.3 million tonnes. For the most part, the gains registered by Prince Rupert in recent years have reflected the economic advantage given to moving grain

<sup>38</sup> The Thunder Bay and Vancouver corridors are deemed the most competitive since both CN and CP offer direct rail services to these ports. Notwithstanding minor differences, the rate increases noted here reflect the general pricing actions of both carriers in these two corridors. With only one serving carrier at the ports of Churchill and Prince Rupert, inter-carrier comparisons of rate changes are not possible. An examination of CN's published rates to these ports shows a net increase of about 20.4% for Churchill, and a net decrease of about 4.1% for Prince Rupert, over the same period of time.

<sup>39</sup> To earn the maximum discount of \$7.50 per tonne, a shipper must load the 112 cars in a 10-hour window. Shippers unable to do so can instead earn the \$7.00-per-tonne discount that is available for cars loaded in a 24-hour window.

<sup>40</sup> These programs, which are supported by a diverse series of financial rewards and penalties, allow shippers to contract with the railways for unit train movements over an extended period of time.

<sup>41</sup> See section 2.31 for a fuller discussion of these complaints.

through the port, which was precipitated in large part by reduced CN freight rates and an improvement in car allocation.

The results for the eastern gateways of Churchill and Thunder Bay were equally strong. With a 41.2% increase in terminal throughput, Churchill posted the largest year-over-year increase in volume, which totalled 0.6 million tonnes. Despite a sharp rise in wheat and durum sales, these gains were offset by a net reduction of 0.1 million tonnes in canola and pea exports. In comparison, the port of Thunder Bay saw its first quarter volume increase by a much smaller 11.9% to reach 1.9 million tonnes. This result was driven by more moderate increases in the port's handlings of non-CWB commodities, which served to temper the larger gains made by CWB grains.

Terminal inventories during the first quarter increased by just 1.5%, leaving the overall average largely unchanged at 1.4 million tonnes. Still, this constituted the largest value reported for a first quarter under the GMP.<sup>42</sup> At the same time, the average amount of time spent by grain in inventory declined by 8.0%, falling to a first quarter average of 19.6 days from 21.3 days a year earlier. This reduction was derived from storage-time decreases in all ports save that of Prince Rupert, which reported a 36.8% increase. As was the case with primary elevator stocks, this suggests that terminal grain inventories were being turned over faster in the face of increased commercial activity.

With throughput increasing in the face of comparatively small changes in terminal grain inventories, stock-to-shipment ratios were observed to have moved generally lower. Although this was particularly true of the CWB grains, it extended to some of the non-CWB commodities as well, most notably peas. Even so, the average ratios all remained above the 1.0 threshold.<sup>43</sup> However, this does not mean that shortages were fully avoided, or that inventories were not tight at specific periods in the first quarter. Shortages were signalled most frequently in the minimum ratios produced by the ports of Vancouver and Prince Rupert, where almost two-thirds of the overall throughput was directed.

### 3.42 Port Performance

Some 242 vessels called at western Canadian ports during the first three months of the 2007-08 crop year, an increase of 15.2% over the 210 vessels that called during the same period a year earlier. The average amount of time these vessels spent in port increased by 2.2%, rising to an average of 4.6 days for the period from 4.5 days. Although still comparatively high, this average proved to be largely consistent with the four to four-and-a-half day range generally observed over the course of the preceding eight crop years.<sup>44</sup>

On the whole, much of the overall rise was attributable to an increase in vessel waiting time, which rose by 10.0%, or 0.2 days, to an average of 2.2 days. Much of the rise was derived from sharp increases in the waiting times reported for vessels loading at Vancouver and Churchill. In contrast, the average loading time for the first quarter actually decreased by 4.0%, to an average of 2.4 days from 2.5 days. Interestingly, much of this improvement was also driven by reduced loading times at Vancouver and Churchill.

When examining the amount of time spent by vessels at individual ports, only those calling at Vancouver and Prince Rupert were observed to have posted overall increases. The average length of these stays at Vancouver increased by 6.7% in the first quarter, rising to 6.4 days from 6.0 days a year earlier. The duration of vessel layovers at Prince Rupert climbed by a comparable 6.8%, increasing to an average of 7.9 days from 7.4 days. Running counter to these were Churchill and Thunder Bay, where a 10.5% decrease for the former reduced the average stay in port to 5.1 days from 5.7 days. At Thunder Bay, the decrease amounted to 11.1%, resulting in layovers averaging just 1.6 days as compared to 1.8 days a year earlier.

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<sup>42</sup> The previous high for first quarter terminal stocks came in the 2006-07 crop year when they attained an average of 1,390,100 tonnes. The current crop year's average of 1,410,300 tonnes exceeds this mark by 1.5%.

<sup>43</sup> A stock-to-shipment ratio in excess of a value of 1.0 implies that a terminal's existing stocks were sufficient to fill the demand posed by vessels loading in the coming week.

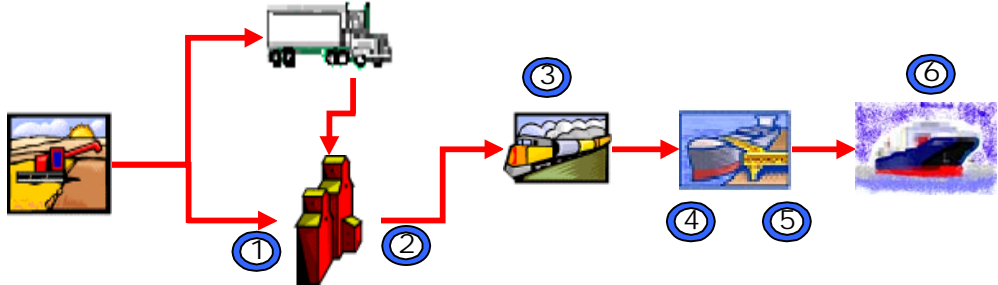
<sup>44</sup> During the course of the GMP, there were instances where the quarterly average exceeded the 4.5 days cited here as the typical maximum. The most significant deviation was observed in the 2006-07 crop year, where the average reached a height of 9.0 days in the third quarter.

### 3.5 The Supply Chain

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 2006-07 crop year, it was observed that this process required an average of 58.1 days; some 1.5 days more than had been the case a year earlier when the GMP's record-setting average of 56.6 days was achieved.

Much of this increase was driven by a 1.3-day rise in the amount of time spent by grain in storage at port. A 0.6-day rise in the amount of time spent in country elevator storage also contributed to the broader increase. Only a 0.4-day reduction in the loaded railway transit time served to counteract these forces.

Table 1: The GHTS Supply Chain



SUPPLY CHAIN ELEMENT	TABLE	1999-00	2003-04	2004-05	2005-06	2006-07	YTD 2007-08	SUPPLY CHAIN EFFECT	
<b><u>SPEED RELATED</u></b>									
2	Country Elevator – Average Days-in-Store	3B-4	41.7	34.4	29.5	30.1	30.7	29.2	▼
3	Average Railway Loaded Transit Time (days)	3C-4	9.2	8.9	8.7	8.6	8.2	7.3	▼
5	Terminal Elevator – Average Days-in-Store	3D-4	18.6	19.0	19.9	17.9	19.2	19.6	▲
Average Total Days in GHTS			69.4	62.3	58.1	56.6	58.1	56.1	▼
<b><u>SERVICE / ASSET RELATED</u></b>									
1	Average Country Elevator Capacity Turnover Ratio	3B-2	4.8	5.6	5.6	6.2	6.5	7.2 *	▲
4	Average Terminal Elevator Capacity Turnover Ratio	3D-2	9.1	7.0	7.5	8.7	8.3	n/a	–
3	Average Railway Car Cycle (days)	3C-4	19.9	16.7	18.7	17.3	16.8	15.0	▼
6	Average Vessel Time in Port (days)	3D-7	4.3	4.0	4.9	4.8	5.3	4.6	▼
* For comparative purposes, the value of 7.2 presented here represents an annualized equivalent for the 1.8 actually recorded as the country elevator's capacity turnover ratio in the first three months of the 2007-08 crop year.									

Notwithstanding a further 0.4-day rise in the amount of time spent by grain in the terminal elevator system, the overall amount of time involved in moving grain through the supply chain fell by two full days in the first quarter of the 2007-08 crop year, to an average of 56.1 days. Moreover, this proved to be a half day less than the record-setting 56.6-day average achieved just two years earlier. Much of this result was shaped by time reductions for country elevator storage and loaded railway transit, with their quarterly averages ranking amongst the lowest values yet witnessed under the GMP.

In addition to the preceding, a few other comments concerning the performance of the GHTS in the first quarter of the 2007-08 crop year are warranted:

- Firstly, despite a 10.5% reduction in the grain supply, which totalled 55.2 million tonnes, a GMP record of 7.1 million tonnes ultimately passed through western Canadian ports during the first three months of the 2007-08 crop year. As a result, the pressures brought to bear on the GHTS in the first quarter were the most demanding yet felt under the GMP.
- Secondly, the heightened demand for Canadian export grain in the face of tight global supplies accentuated the pressures exerted on the GHTS during this period. Many of the problems encountered during this period focused on car supply and the need for more responsive railway service.
- Finally, there is evidence to suggest that, despite the problems encountered during this period, grain is moving through the supply chain at a noticeably faster pace than at any other time in the history of the GMP. To be sure, much of the overall improvement has come from a reduction in the amount of time spent by grain as inventory in the country elevator network, which has clearly been driven by the rationalization of these same facilities. Still, recent improvements in the loaded transit times posted by the railways are worth noting given that the 7.3-day average posted in the first quarter proved to be the best yet recorded under the GMP.



## 4.0 Producer Impact

### 4.1 Producer Netback

One of the GMP's key objectives is to determine the impact on producers arising from changes in the GHTS. The principal measure in this regard is the *producer netback*, an estimation of the per-tonne financial return to producers after the various logistics costs, collectively known as the export basis, are deducted from the actual price realized in a grain sale.<sup>45</sup>

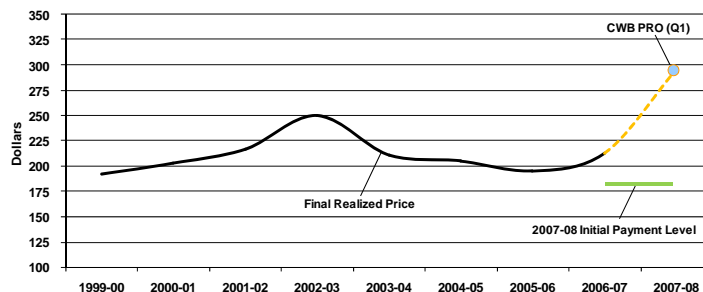
In its earlier reports, the Monitor described how increased commodity prices had largely been responsible for the improvement in the per-tonne returns accruing to producers of wheat, durum, canola, and yellow peas in the first four crop years of the GMP. During this same period, the export basis also fell marginally, thereby adding to the gains that improved grain prices had already generated. When prices began to decline in the 2003-04 crop year, these per-tonne gains were significantly eroded. This continued to be the case through to the end of the 2005-06 crop year, at which point these returns were seen to have fallen to their lowest values under the GMP. In the 2006-07 crop year, however, world grain prices began to move noticeably higher. This proved advantageous to producers at large, and was reflected in a substantial improvement in the financial returns they derived from the sale of these commodities.

The GMP only includes these indicators in the Monitor's annual reports since certain elements integral to the calculation are not available until after the close of the crop year itself. Nevertheless, current price and input-cost data is collected for both wheat and canola as a means of providing some insight into their probable impact on the per-tonne financial return arising to producers. Some of the changes observed during the first quarter of the 2007-08 crop year are summarized below.

#### 4.11 CWB Grains

The GMP uses the CWB's Pool Return Outlook (PRO) for 1 CWRS wheat (13.5% protein) as the principal barometer of changing CWB grain prices. Throughout the first quarter of the 2007-08 crop year, the CWB's PRO for 1 CWRS wheat moved steadily upwards from the 2006-07 crop year's final realized price of \$212.89 per tonne. By the end of October, the PRO had risen 38.6% to \$295.00 per tonne. This value well exceeded the \$182.20 per tonne that had been set as the farmer's initial payment for the 2007-08 crop year by 51.9%.

Figure 12: Recent Price Changes – 1CWRS Wheat (dollars per tonne)



Much of the impetus for this rise in price stemmed from a significant tightening of the global wheat supply. In fact, worldwide stock levels were reputed to have fallen to their lowest point in almost three decades as a result of varying production problems. These included droughts in Australia and the Ukraine; hot, dry growing conditions in Canada; a cool, wet summer in Europe; and excessive rain at harvest for US crops. In the face of strong export demand, all of these forces served to lift the PRO to its highest level under the GMP. As a result, the financial returns accruing to producers are expected to improve significantly in the 2007-08 crop year.

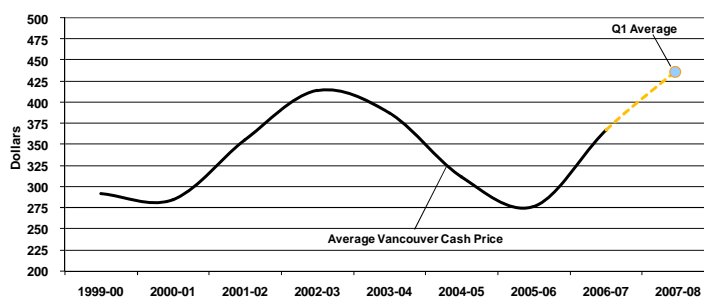
<sup>45</sup> Among other elements, the export basis includes the cost of trucking, elevator handling and railway movement. It also includes where applicable, the CWB's pooling costs, and other incidental charges. Similarly, it also includes a deduction for any of the financial benefits accruing to producers as a result of the receipt of trucking or any similar premiums, as well as the CWB's transportation savings.

#### 4.12 Non-CWB Grains

Although not as impressive as the gain posted for wheat, the Vancouver cash price for 1 Canada Canola rose by 19.6% in the first quarter of the 2007-08 crop year, reaching an average of \$439.30 per tonne as compared to the previous crop year's final average of \$367.25-per-tonne. This gain was stimulated by the wider expectations of the global oilseed market, which reacted negatively to an anticipated 6% reduction in world soybean production. Much of the reduction could be traced to an expected 20% decline in US output, as farmers diverted more land towards the production of corn.

Moreover, the prospect of heightened oilseed production in other parts of the world did little to blunt these forces as the overall demand for vegetable oils was expected to rise by another 5% in the face of the growing need for feedstock in US and European biodiesel production. Even a near-record amount of Canadian canola proved inadequate in holding prices. The magnitude of the price increase noted for 1 Canada canola strongly suggests that there will be a positive impact on the per-tonne financial returns of western Canadian grain producers in the 2007-08 crop year.

Figure 13: Recent Price Changes – 1 Canada Canola (dollars per tonne)



Even rising input costs seemed likely to be dwarfed by these gains. Among the most pronounced of these were the increases tied to various country and terminal elevator activities. In the case of the former, these increases ranged from a low of 1.7% for elevation to a high of 11.0% for storage. Similarly, the escalation on the tariff rates tied to terminal elevation and storage activities amounted to about 2.4% and 2.9% respectively. In equal measure, the rates associated with moving grain by rail rose by about 1.0% from those in place at the end of the previous crop year.

#### 4.2 Producer-Car Loading

As related in the Monitor's 2006-07 annual report, the aggregate number of producer-car loading sites had fallen from 709 to 474 over the course of the last eight crop years. Much of this net decline was the product of a reduction in the number of sites maintained by CN and CP. Still, the operation of a portion of these was assumed by various shortline railways, which resulted in their count rising from 65 to a height of 166 by the end of the 2003-04 crop year. However, the subsequent demise of several small carriers resulted in some of these reverting back to Class-1-carrier control. By the end of the 2006-07 crop year only 106 producer-car loading sites remained under the umbrella of shortline operators. The first quarter of the 2007-08 crop year produced only minor changes in these totals with the number operated by Class 1 carriers having declined from 368 to 359, while those tied to the shortline carriers increased by two to 108.

Producer-car shipments during the first quarter of the 2007-08 crop year increased by 62.6% from that handled a year earlier, rising to 2,396 from 1,474. In relation to the volume of grain shipped in covered hoppers, producer-car loadings accounted for just 3.0% of the overall total. This share increased to 4.9% when gauged against CWB grains alone, which constituted the majority of producer car movements. Both values were substantially greater than the 1.9% and 3.9% shares respectively secured twelve months before.



## Synopsis – 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 – First Quarter 2007-08 Crop Year

#### Grain Production and Supply

- Grain production decreased by 3.1% to 47.7 million tonnes.
  - General decline in overall grain quality due to poorer weather.
- Carry forward stocks decreased by 40.0% to 7.5 million tonnes.
  - Drawdown prompted by heightened global demand for grain.
- Overall grain supply decreased by 10.5% to 55.2 million tonnes.

#### Railway Traffic

- Railway tonnage during the first quarter increased 3.4% to 7.3 million tonnes.
  - Reflected upturn in barley and special crop shipments.
- Traffic to most western Canadian ports increased in the first quarter.
  - Vancouver – up by 7.7% to 3.7 million tonnes.
  - Thunder Bay – down by 12.3% to 1.7 million tonnes.
  - Prince Rupert – up by 9.1% to 1.3 million tonnes.
    - Showed further increase in volume as a result of CN inducements.
  - Churchill – up by 22.1% to 0.5 million tonnes.

#### Country Elevator Infrastructure

- Minimal changes recorded during the first quarter.
  - Grain delivery points increased by two to 274.
  - Number of country elevators increased by four to 375.
- Elevator storage capacity increased by 1.3% to 5.9 million tonnes.
- Elevators capable of loading in blocks of 25 or more cars increased by two to 242.
  - Accounted for 64.5% of total elevators.
  - Accounted for 88.2% of total storage capacity.
- Elevators capable of loading in blocks of 50 or more cars remains unchanged at 176.
  - Accounted for 46.9% of total elevators.
  - Accounted for 77.9% of total storage capacity.

#### Railway Infrastructure

- Western Canadian rail network reduced by 0.1% to 18,470.8 route-miles.
  - Reflected abandonment of 24.5 route-miles of CP Outlook Subdivision.
- Discontinuance plans for over 900 route-miles of CN and CP infrastructure remain.

#### Terminal Elevator Infrastructure

- Licensed GHTS terminal elevators remained unchanged at 16.
  - Licensed storage capacity remained unchanged at 2.6 million tonnes.
- Terminal elevator unloads for the first three months increased by 10.1% to 81,083 carloads.

## Indicator Series 1 – Industry Overview

		2007-08										
Table	Indicator Description	Notes	1999-00	2004-05	2005-06	2006-07	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Production and Supply [Subseries 1A]</b>												
1A-1	Crop Production (000 tonnes)	(1)	55,141.7	53,401.3	56,002.7	49,264.6	47,739.5	-	-	47,739.5	-3.1%	▼
1A-2	Carry Forward Stock (000 tonnes)	(1)	7,418.2	6,647.5	10,768.0	12,424.7	7,450.6	-	-	7,450.6	-40.0%	▼
	Grain Supply (000 tonnes)	(1)	62,559.9	60,048.8	66,770.7	61,689.3	55,190.1	-	-	55,190.1	-10.5%	▼
1A-3	Crop Production (000 tonnes) – Special Crops	(1)	3,936.7	5,109.2	5,169.5	3,938.1	4,404.3	-	-	4,404.3	11.8%	▲
<b>Rail Traffic [Subseries 1B]</b>												
1B-1	Railway Grain Volumes (000 tonnes) – Origin Province	(1)	26,440.8	20,832.5	25,304.7	24,311.7	7,291.6	-	-	7,291.6	3.4%	▲
1B-2	Railway Grain Volumes (000 tonnes) – Primary Commodities	(1)										
1B-3	Railway Grain Volumes (000 tonnes) – Detailed Breakdown	(1)										
1B-4	Railway Grain Volumes (000 tonnes) – Special Crops	(1)	2,103.4	2,210.6	2,608.2	2,344.3	1,039.3	-	-	1,039.3	13.3%	▲
<b>Country Elevator Infrastructure [Subseries 1C]</b>												
1C-1	Grain Delivery Points (number)	(2)	626	282	275	272	274	-	-	-	0.7%	-
1C-1	Grain Elevator Storage Capacity (000 tonnes)	(2)	7,443.9	5,845.6	5,870.8	5,808.2	5,884.5	-	-	-	1.3%	▲
1C-1	Grain Elevators (number) – Province	(2)	917	385	374	371	375	-	-	-	1.1%	▲
1C-2	Grain Elevators (number) – Railway Class	(2)										
1C-3	Grain Elevators (number) – Grain Company	(2)										
1C-4	Grain Elevators Capable of Multiple Car Loading (number) – Province	(2)	317	256	250	240	242	-	-	-	0.8%	-
1C-5	Grain Elevators Capable of Multiple Car Loading (number) – Railway Class	(2)										
1C-6	Grain Elevators Capable of Multiple Car Loading (number) – Railway Line Class	(2)										
1C-7	Grain Elevator Openings (number) – Province	(2)	43	18	10	48	7	-	-	-	-85.4%	▼
1C-8	Grain Elevator Openings (number) – Railway Class	(2)										
1C-9	Grain Elevator Openings (number) – Railway Line Class	(2)										
1C-10	Grain Elevator Closures (number) – Province	(2)	130	37	21	51	3	-	-	-	-94.1%	▼
1C-11	Grain Elevator Closures (number) – Railway Class	(2)										
1C-12	Grain Elevator Closures (number) – Railway Line Class	(2)										
1C-13	Grain Delivery Points (number) – Accounting for 80% of Deliveries	(2)(3)	217	94	90	n/a	n/a	n/a	n/a	n/a	n/a	-
<b>Railway Infrastructure [Subseries 1D]</b>												
1D-1	Railway Infrastructure (route-miles) – Grain-Dependent Network	(2)	4,876.6	4,390.3	4,221.6	4,137.7	4,113.2	-	-	-	-0.6%	-
1D-1	Railway Infrastructure (route-miles) – Non-Grain-Dependent Network	(2)	14,513.5	14,373.4	14,373.4	14,357.6	14,357.6	-	-	-	0.0%	-
1D-1	Railway Infrastructure (route-miles) – Total Network	(2)	19,390.1	18,763.7	18,595.0	18,495.3	18,470.8	-	-	-	-0.1%	-
1D-2	Railway Grain Volumes (000 tonnes) – Grain-Dependent Network	(1)	8,686.5	5,936.7	7,601.2	6,988.8	2,081.1	-	-	2,081.1	-0.3%	-
1D-2	Railway Grain Volumes (000 tonnes) – Non-Grain-Dependent Network	(1)	16,975.8	14,323.2	17,119.6	16,748.1	5,035.6	-	-	5,035.6	4.1%	▲
1D-2	Railway Grain Volumes (000 tonnes) – Total Network	(1)	25,662.3	20,259.9	24,720.8	23,736.9	7,116.7	-	-	7,116.7	2.7%	▲
1D-3	Shortline Railway Infrastructure (route-miles)	(2)	3,043.0	3,088.2	2,445.6	2,023.2	2,023.2	-	-	-	0.0%	-
1D-3	Shortline Railway Grain Volumes (000 tonnes)	(1)	2,090.5	1,676.3	1,709.2	1,059.1	209.7	-	-	209.7	-49.1%	▼
1D-5	Railway Grain Volumes (000 tonnes) – Class 1 Carriers	(1)	23,571.8	18,583.6	23,011.6	22,677.8	6,907.0	-	-	6,907.0	6.0%	▲
1D-5	Railway Grain Volumes (000 tonnes) – Class 2 and 3 Carriers	(1)	2,090.5	1,676.3	1,709.2	1,059.1	209.7	-	-	209.7	-49.1%	▼
1D-6	Grain Elevators (number) – Grain-Dependent Network	(2)	371	132	127	117	119	-	-	-	1.7%	▲
1D-6	Grain Elevators (number) – Non-Grain-Dependent Network	(2)	513	239	233	238	240	-	-	-	0.8%	▲
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Grain-Dependent Network	(2)	2,475.4	1,659.2	1,628.8	1,575.6	1,606.4	-	-	-	2.0%	▲
1D-6	Grain Elevator Storage Capacity (000 tonnes) – Non-Grain-Dependent Network	(2)	4,847.6	4,133.4	4,188.9	4,169.0	4,214.5	-	-	-	1.1%	▲
<b>Terminal Elevator Infrastructure</b>												
1E-1	Terminal Elevators (number)	(2)	15	16	16	16	16	-	-	-	0.0%	-
1E-1	Terminal Elevator Storage Capacity (000 tonnes)	(2)	2,678.6	2,642.6	2,642.6	2,642.6	2,642.6	-	-	-	0.0%	-
1E-2	Terminal Elevator Unloads (number) – Covered Hopper Cars	(1)	278,255	217,666	271,714	261,204	81,083	-	-	81,083	10.1%	▲

- (1) – Year-To-Date values are reported for volume-related indicators only (i.e., Railway Grain Volumes). The accompanying percentage variance denotes the relative change in the current YTD value as compared to the same period a year earlier.  
(2) – Quarterly values for non-volume-related indicators (i.e., Grain Delivery Points) are “as at” the end of the reporting period. The accompanying percentage variance denotes the relative change in the value of the most recent reporting period as compared to that at the end of the preceding crop year.  
(3) – Statistics relating to grain deliveries by station, as produced by the Canadian Grain Commission, are generally produced a full six months after the close of the crop year. The most recent statistics available are those from the 2005-06 crop year.

## Synopsis – 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 in the reforms was the introduction, and gradual expansion of tendering for Canadian Wheat Board (CWB) grain shipments to Western Canadian ports. For the 2006-07 crop year, the CWB has once again committed itself to moving 40% of its grain shipments under a new program that combines tendering as well as advance car awards.

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 – First Quarter 2007-08 Crop Year

#### Tendering Program

- 52 tender calls were issued by the CWB during the first three months of the 2007-08 crop year.
  - Calls for the movement of 0.6 million tonnes to export positions in western Canada.
    - Thunder Bay delivery – 38.4%; Prince Rupert – 31.7%; Vancouver – 29.9%; and Churchill – 0.0%.
- 219 bids received; offered an aggregated 1.6 million tonnes.
  - Response rates significantly greater than in either of the three preceding crop years.
    - Reflected heightened demand and availability of export grains.
- 79 contracts concluded for the movement of 0.6 million tonnes.
  - Vancouver deliveries – 39.9%; Thunder Bay – 36.6%; Prince Rupert – 23.5%; and Churchill – 0.0%.
  - Represented 14.4% of volume shipped by CWB to port positions in Western Canada.
    - Fell below maximum 20% target.
- Tenders for 12.0% of the tonnage called either partially, or not at all, filled.
  - Sharp reduction from the 33.9% recorded for the 2006-07 crop year.
    - 40,700 tonnes – non-compliance with bid specifications.
    - 19,200 tonnes – unacceptable bid price.
    - 13,700 tonnes – insufficient quantity bid.
- Proportion of tendered grain volume moving in multiple car blocks increased to 93.7%.
  - Proportion moving in blocks of 50 or more cars decreased to 74.5% from 77.7% in the 2006-07 crop year.
- 90.7% of all tendered movements originated at high-throughput elevators.
  - Marginally higher than 86.3% observed in the 2006-07 crop year.
- CWB estimated that the overall transportation savings for the first quarter decreased by 28.6% to \$6.5 million.
  - Underscored effects of decreased tendered volume.

#### Other Commercial Developments

- CWB and five other grain shippers filed level-of-service complaints against CN.
  - Built on complaints similar to those advanced by Great Northern Grain Terminals Ltd. six months earlier.
    - Alleges that discriminatory car allocation practices are inherent in advance products.
- Federal government signed new operating agreements with CN and CP for the use of government-owned hopper car fleet.
  - Provides for rehabilitation and longer-term replacement of aging railcars.
- Port of Churchill experiences a sharp increase in traffic volume.
  - GMP record first quarter throughput of 0.6 million tonnes.
    - Included first outbound marine shipment of grain to a Canadian destination.
  - Received commitment for \$48 million in federal and provincial government assistance.

## Indicator Series 2 – Commercial Relations

											2007-08		
Table	Indicator Description	Notes	1999-00	2004-05	2005-06	2006-07	Q1	Q2	Q3	YTD (1)	% VAR		
<b>Tendering Program [Subseries 2A]</b>													
2A-1	Tenders Called (000 tonnes) – Grain	(1)	n/a	6,218.5	5,325.7	3,765.1	611.6	-	-	611.6	-49.0%	▼	
2A-2	Tenders Called (000 tonnes) – Grade	(1)											
2A-3	Tender Bids (000 tonnes) – Grain	(1)	n/a	5,722.9	7,131.0	6,753.6	1,642.1	-	-	1,642.1	-21.5%	▼	
2A-4	Tender Bids (000 tonnes) – Grade	(1)											
2A-5	Total CWB Movements (000 tonnes)	(1)(2)	n/a	13,281.2	15,132.6	14,932.2	4,205.8	-	-	4,205.8	4.8%	▲	
2A-5	Tendered Movements (%) – Proportion of Total CWB Movements	(1)(2)	n/a	18.0%	16.2%	17.8%	14.4%	-	-	14.4%	-16.8%	▼	
2A-5	Tendered Movements (000 tonnes) – Grain	(1)(2)	n/a	2,387.7	2,447.5	2,651.6	604.5	-	-	604.5	-13.0%	▼	
2A-6	Tendered Movements (000 tonnes) – Grade	(1)(2)											
2A-7	Unfilled Tender Volumes (000 tonnes)	(1)	n/a	3,651.2	2,913.9	1,276.6	73.6	-	-	73.6	-87.3%	▼	
2A-8	Tendered Movements (000 tonnes) – Not Awarded to Lowest Bidder	(1)	n/a	65.9	130.5	46.3	9.9	-	-	9.9	-64.3%	▼	
2A-9	Tendered Movements (000 tonnes) – FOB	(1)(2)	n/a	43.2	155.6	152.8	65.1	-	-	65.1	-6.9%	▼	
2A-9	Tendered Movements (000 tonnes) – In-Store	(1)	n/a	2,344.5	2,291.9	2,651.6	539.4	-	-	539.4	-13.6%	▼	
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 (railcars) – Port		n/a	55.5	54.4	64.7	55.5	-	-	55.5	-14.2%	▼	
2A-18	Railway Car Cycle (days) – Tendered Grain		n/a	16.9	15.7	14.7	13.0	-	-	13.0	-1.5%	▼	
2A-18	Railway Car Cycle (days) – Non-Tendered Grain		n/a	17.5	16.8	16.4	14.3	-	-	14.3	-11.2%	▼	
2A-19	Maximum Accepted Tender Bid (\$ per tonne) – Wheat		n/a	-\$21.86	-\$18.58	-\$24.51	-\$21.28	-	-	-\$21.28	-8.0%	▼	
2A-19	Maximum Accepted Tender Bid (\$ per tonne) – Durum		n/a	-\$19.03	-\$18.05	-\$21.56	-\$10.52	-	-	-\$10.52	-50.0%	▼	
2A-20	Market Share (%) – CWB Grains – Major Grain Companies		n/a	77.2%	76.1%	75.6%	74.9%	-	-	74.9%	-4.2%	▼	
2A-20	Market Share (%) – CWB Grains – Non-Major Grain Companies		n/a	22.8%	23.9%	24.4%	25.1%	-	-	25.1%	15.1%	▲	
<b>Advance Car Awards Program [Subseries 2B]</b>													
2B-1	Advance Award Movements (%) – Proportion of Total CWB Movements		n/a	15.8%	15.6%	15.8%	7.4%	-	-	7.4%	-41.3%	▼	
2B-1	Advance Award Movements (000 tonnes) – Grain		n/a	2,100.7	2,365.1	2,362.9	310.3	-	-	310.3	-38.8%	▼	
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	17.3	15.6	15.1	12.9	-	-	12.9	-13.4%	▼	
2B-7	Distribution of Advance Award Movements – Multiple-Car Blocks	(4)											
2B-8	Weighted Average Tendered and Advance Award Multiple-Car Block Size (railcars) – Port		n/a	47.3	46.0	53.9	50.8	-	-	50.8	-3.1%	▼	

- (1) – Year-To-Date values are reported for volume-related indicators only (i.e., Tenders Called). The accompanying percentage variance denotes the relative change in the current YTD value as compared to the same period a year earlier. Significant variances may be observed as a result of a change in the Canadian Wheat Board's tendering commitment.
- (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 corresponding data table directly.
- (4) – Indicators 2B-2 through 2B-5, as well as 2B-7, examine advance car awards 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 corresponding data table directly.

## Synopsis – 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 chapter – 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 – First Quarter 2007-08 Crop Year**

#### **Trucking**

- Composite Freight Rate Index for short-haul trucking increased by 1.9% to 125.5 in the first quarter.

#### **Country Elevators**

- First quarter throughput increased by 9.4% to 9.4 million tonnes.
  - Largest first quarter volume recorded under the GMP.
- The average elevator capacity turnover ratio increased 5.9% to 1.8 turns.
  - Reflected effects of increased throughput.
  - Largest quarterly value recorded under the GMP.
- Average inventory level decreased by 3.8% to 2.9 million tonnes.
- Average number of days-in-store decreased by 7.3% to 29.2 days.
- Average weekly stock-to-shipment ratio decreased by 12.8% to 4.1 for the first quarter.
- Average posted tariff rates for elevation increased by 1.7% in the first quarter.

#### **Rail Operations**

- Average car cycle decreased by 6.0% to 15.0 days during the first quarter of the crop year.
  - Improvement in underlying empty and loaded transit time averages.
    - Average empty transit time decreased 7.6% to 7.7 days.
    - Average loaded transit time decreased 4.1% to 7.3 days.
- Proportion of grain moving under incentive programs decreases to 73.5% from 75.2% in the 2006-07 crop year.
- Railway incentive payments estimated to have increased by 15.0% to \$28.2 million in the first quarter.
  - Reflected increase in tonnage and applicable discounts.
- Single car freight rates increased at the beginning of the 2007-08 crop year.
  - Full conversion to per-car charges for both CN and CP.
  - CP posted the lowest overall increases for wheat.
    - Thunder Bay – up by 0.3%; Vancouver – up by 0.8%.
  - CN increased rates on wheat by about 1.0% in most corridors.
    - Widened preferential pricing on shipments to Prince Rupert with rate reductions of about 5.5%.

#### **Terminal Elevators and Port Performance**

- Terminal throughput increased by 18.5% to 7.1 million tonnes during the first quarter.
- 242 vessels loaded at western Canadian ports during the first three months of the crop year.
  - Average time in port increased 2.2% to 4.6 days.
- Average posted tariff rates for elevator handling and storage increased by up to 2.9% in the first quarter.



## Indicator Series 3 – System Efficiency

		2007-08										
Table	Indicator Description	Notes	1999-00	2004-05	2005-06	2006-07	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Trucking [Subseries 3A]</b>												
3A-1	Composite Freight Rate Index – Short-haul Trucking	(2)	100.0	111.3	120.9	123.2	125.5	-	-	-	1.9%	▲
<b>Primary Country Elevators [Subseries 3B]</b>												
3B-1	Grain Volume Throughput (000 tonnes)	(1)	32,493.9	28,593.5	32,105.2	33,452.6	9,410.8	-	-	9,410.8	9.4%	▲
3B-2	Average Elevator Capacity Turnover Ratio	(1)	4.8	5.6	6.2	6.5	1.8	-	-	1.8	5.9%	▲
3B-3	Average Weekly Elevator Stock Level (000 tonnes)	(1)	3,699.3	2,314.3	2,651.2	2,814.7	2,860.5	-	-	2,860.5	-3.8%	▼
3B-4	Average Days-in-Store (days)	(1)	41.7	29.5	30.1	30.7	29.2	-	-	29.2	-7.3%	▼
3B-5	Average Weekly Stock-to-Shipment Ratio – Grain	(1)	6.2	4.1	4.3	4.5	4.1	-	-	4.1	-12.8%	▼
3B-6	Average Handling Charges – Country Delivery Points	(3)										
<b>Rail Operations [Subseries 3C]</b>												
3C-1	Hopper Car Grain Volumes (000 tonnes) – Province	(1)	25,662.3	20,259.9	24,720.8	23,736.9	7,116.7	-	-	7,116.7	2.7%	▲
3C-2	Hopper Car Grain Volumes (000 tonnes) – Primary Commodities	(1)										
3C-3	Hopper Car Grain Volumes (000 tonnes) – Detailed Breakdown	(1)										
3C-4	Railway Car Cycle (days) – Empty Transit Time	(1)	10.7	10.1	8.8	8.7	7.7	-	-	7.7	-7.6%	▼
3C-4	Railway Car Cycle (days) – Loaded Transit Time	(1)	9.2	8.7	8.6	8.2	7.3	-	-	7.3	-4.1%	▼
3C-4	Railway Car Cycle (days) – Total Transit Time	(1)	19.9	18.7	17.3	16.8	15.0	-	-	15.0	-6.0%	▼
3C-5	Railway Car Cycle (days) – Non-Special Crops	(1)	19.3	18.6	17.2	16.6	14.7	-	-	14.7	-7.3%	▼
3C-6	Railway Car Cycle (days) – Special Crops	(1)	25.8	20.6	19.5	20.0	17.0	-	-	17.0	5.3%	▲
3C-7	Railway Car Connections (days)	(1)(3)										
3C-8	Hopper Car Grain Volumes (000 tonnes) – Non-Incentive	(1)	12,716.9	5,294.3	6,037.9	5,888.5	1,886.8	-	-	1,886.8	-15.6%	▼
3C-8	Hopper Car Grain Volumes (000 tonnes) – Incentive	(1)	12,945.5	14,965.6	18,682.9	17,848.4	5,229.9	-	-	5,229.9	11.5%	▲
3C-9	Hopper Car Grain Volumes (\$ millions) – Incentive Discount Value	(1)	\$31.1	\$67.7	\$89.9	\$96.5	\$28.2	-	-	\$28.2	15.0%	▲
3C-10	Traffic Density (tonnes per route mile) – Grain-Dependent Network	(1)	442.5	337.1	439.0	418.0	506.0	-	-	506.0	-15.5%	▼
3C-10	Traffic Density (tonnes per route mile) – Non-Grain-Dependent Network	(1)	292.4	249.1	297.8	291.5	350.7	-	-	350.7	-13.4%	▼
3C-10	Traffic Density (tonnes per route mile) – Total Network	(1)	330.3	269.8	330.5	320.1	385.3	-	-	385.3	-14.1%	▼
3C-11	Composite Freight Rates (\$ per tonne) – Rail	(2)(3)										
3C-12	Multiple-Car Shipment Incentives (\$ per tonne) – Rail	(2)(3)										
3C-13	Effective Freight Rates (\$ per tonne) – CTA Revenue Cap	(2)(4)	n/a	\$25.85	\$27.97	\$29.90	n/a	n/a	n/a	n/a	n/a	–
<b>Terminal Elevator and Port Performance [Subseries 3D]</b>												
3D-1	Annual Port Throughput (000 tonnes) – Grain	(1)	23,555.5	18,943.5	23,722.7	22,823.9	7,141.2	-	-	7,141.2	18.5%	▲
3D-2	Average Terminal Elevator Capacity Turnover Ratio	(1)(5)	9.1	7.5	8.7	8.3	n/a	n/a	n/a	n/a	n/a	–
3D-3	Average Weekly Terminal Elevator Stock Level (000 tonnes)	(1)	1,216.2	1,127.5	1,281.7	1,385.3	1,410.3	-	-	1,410.3	1.5%	▲
3D-4	Average Days-in-Store – Operating Season (days)	(1)	18.6	19.9	17.9	19.2	19.6	-	-	19.6	-8.0%	▼
3D-5	Average Weekly Stock-to-Shipment Ratio – Grain	(1)(3)										
3D-6	Average Weekly Stock-to-Shipment Ratio – Grade	(1)(3)										
3D-7	Average Vessel Time in Port (days)	(1)	4.3	4.9	4.8	5.3	4.6	-	-	4.6	2.2%	▲
3D-8	Distribution of Vessel Time in Port	(1)(3)										
3D-9	Distribution of Berths per Vessel	(1)(3)										
3D-10	Annual Demurrage Costs (\$millions)	(5)	\$7.6	\$16.0	\$6.7	\$6.7	n/a	n/a	n/a	n/a	n/a	–
3D-10	Annual Dispatch Earnings (\$millions)	(5)	\$14.5	\$17.5	\$15.2	\$15.2	n/a	n/a	n/a	n/a	n/a	–
3D-11	Average Handling Charges – Terminal Elevators	(2)(3)										

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Grain Volume Throughput). The accompanying percentage variance denotes the relative change in the current YTD value as compared to the same period a year earlier.

(2) – Quarterly values for non-volume-related indicators (i.e., Composite Freight Rate Index) are "as at" the end of the reporting period. The accompanying percentage variance denotes the relative change in the value of the most recent reporting period as compared to that at the end of the preceding crop year.

(3) – Changes in the indicator cited cannot be depicted within the summary framework presented here. The reader is encouraged to consult the corresponding data table directly.

(4) – Statistics relating to effective railway freight rates, as determined by the Canadian Transportation Agency, are generally produced about six months after the close of the crop year. The most recent statistics available are those from the 2006-07 crop year.

(5) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.

## Synopsis – Service Reliability

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*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 – First Quarter 2007-08 Crop Year

#### Port Performance

- Average weekly stock-to-vessel-requirements ratios posted mixed results for the first quarter of the 2007-08 crop year.
  - Vancouver
    - Wheat – 3.3 for the first three months of the 2007-08 crop year, down by 15.1%.
    - Canola – 3.2, up by 66.7%.
  - Thunder Bay
    - Wheat – 6.7 for the first three months of the 2007-08 crop year, down by 4.2%.
    - Canola – 7.6, up by 17.8%.
  - Indicates that grain inventories were generally sufficient to meet short-term demand.
    - Most shortages confined to non-CWB grain movements from Vancouver.
- Average stock-to-shipment ratios provide similar evidence of the ability of these ports to meet short-term demand.
  - Vancouver
    - CWB grains – 2.8 for the first three months of the 2007-08 crop year, down by 5.0%.
    - Non-CWB grains – 2.8, down by 31.2%.
  - Thunder Bay
    - CWB grains – 5.3 for the first three months of the 2007-08 crop year; down by 18.0%.
    - Non-CWB grains – 5.2; up by 18.8%.

## Indicator Series 4 – Service Reliability

		2007-08										
Table	Indicator Description	Notes	1999-00	2004-05	2005-06	2006-07	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Port Performance [Subseries 4A]</b>												
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Wheat	(1)	3.1	2.7	3.4	3.3	3.3	-	-	3.3	-15.1%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – VCR – Canola	(1)	2.5	2.8	2.3	2.8	3.2	-	-	3.2	66.7%	▲
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Wheat	(1)	5.6	6.0	6.6	7.0	6.7	-	-	6.7	-4.2%	▼
4A-1	Avg. Weekly Stock-to-Vessel Requirements Ratio – TBY – Canola	(1)	2.8	2.2	4.4	5.3	7.6	-	-	7.6	17.8%	▲
4A-2	Avg. Weekly Stock-to-Vessel Requirements Ratio – Grade	(1)(2)										
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – CWB Grains	(1)	3.5	3.2	3.2	2.9	2.8	-	-	2.8	-5.0%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – VCR – Non-CWB Grains	(1)	3.6	3.6	3.2	3.6	2.8	-	-	2.8	-31.2%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – CWB Grains	(1)	4.6	7.2	6.8	6.2	5.3	-	-	5.3	-18.0%	▼
4A-3	Avg. Weekly Stock-to-Shipment Ratio – TBY – Non-CWB Grains	(1)	3.3	3.6	3.6	4.4	5.2	-	-	5.2	18.8%	▲
4A-4	Terminal Handling Revenue (\$millions) – Vancouver	(1)(3)	\$192.7	\$150.9	\$150.9	\$150.9	n/a	n/a	n/a	n/a	n/a	-
4A-4	Terminal Handling Revenue (\$millions) – Thunder Bay	(1)(3)	\$82.1	\$68.4	\$68.4	\$68.4	n/a	n/a	n/a	n/a	n/a	-
4A-4	CWB Carrying Costs (\$millions) – Pacific Seaboard	(1)(3)	\$63.3	\$73.8	\$73.8	\$73.8	n/a	n/a	n/a	n/a	n/a	-
4A-4	CWB Carrying Costs (\$millions) – Thunder Bay	(1)(3)	\$31.3	\$36.1	\$36.1	\$36.1	n/a	n/a	n/a	n/a	n/a	-

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Average Weekly Stock-to-Vessel Requirements Ratio). The accompanying percentage variance denotes the relative change in the current YTD value as compared to the same period a year earlier.

(2) – Changes in the indicator cited cannot be depicted within the summary framework presented here. The reader is encouraged to consult the corresponding data table directly.

(3) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.

## Synopsis – 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 under the GMP, and approved for incorporation into the mainstream indicators of the GMP by Transport Canada and Agriculture and Agri-Food Canada.

### Highlights – First Quarter 2007-08 Crop Year

#### Export Basis and Producer Netback – CWB Grains

- Changes in the CWB’s Pool Return Outlook (PRO) for 1 CWRS wheat:
  - Farmer’s initial payment set at \$182.2 per tonne.
    - Represented a 14.4% decrease from the final realized price for the 2006-07 crop year of \$212.89 per tonne.
  - PRO increased to \$295.00 per tonne by the end of the first quarter.
    - Represented a 51.9% premium to the farmer’s initial payment.
    - Price escalation largely fuelled by the expectation of decreased global production in 2007.
- Recent changes in input costs:
  - Country elevator handling – up by an average of 1.7% for elevation; 2.9% for cleaning.
    - Storage charges increased by an average 11.0%.
  - Rail transportation – up by about 1.0% from most origins.
  - Terminal elevator handling – up by as much as 2.9% for storage.
- Changes in the PRO for 1 CWRS wheat, and input costs to the export basis, suggests significant improvement in the producer’s per-tonne netback for CWB grains in the 2007-08 crop year.

#### Export Basis and Producer Netback – Non-CWB Commodities

- Changes in Vancouver cash price for 1 Canada canola:
  - Price rose to an average of \$439.30 per tonne for the first quarter of the 2007-08 crop year.
    - Represented a 19.9% increase from the 2006-07 crop year’s monthly average of \$367.25 per tonne.
    - Price increase largely fuelled by larger global oilseed demand.
- Recent changes in input costs:
  - Country elevator handling – up by an average of 1.7% for elevation; 2.9% for cleaning.
    - Storage charges increased by an average 11.0%.
  - Rail transportation – up by about 1.0% from most origins.
  - Terminal elevator handling – up by as much as 2.9% for storage.
- Changes in the price of 1 Canada canola, and input costs to the export basis, suggests significant improvement in the producer’s per-tonne netback for non-CWB commodities in the 2007-08 crop year.

#### Producer-Car Loading

- Number of producer-car-loading sites decreased by 1.5% to 467.
- Producer-car shipments increased by 62.6% to 2,396 railcars in the first quarter.

## Indicator Series 5 – Producer Impact

Table	Indicator Description	Notes	2007-08									
			1999-00	2004-05	2005-06	2006-07	Q1	Q2	Q3	YTD (1)	% VAR	
<b>Export Basis</b>												
Western Canada												
5A-10	CWRS Wheat (\$ per tonne)	(1)(3)	\$54.58	\$57.77	\$61.81	\$63.20						
5A-10	CWA Durum (\$ per tonne)	(1)(3)	\$67.63	\$70.73	\$72.61	\$76.18						
5A-10	1 Canada Canola (\$ per tonne)	(1)(3)	\$52.51	\$40.97	\$41.76	\$45.80						
5A-10	Canadian Large Yellow Peas – No. 2 or Better (\$ per tonne)	(1)(3)	\$54.76	\$67.98	\$52.94	\$62.17						
<b>Producer-Car Loading</b>												
5B-1	Producer-Car-Loading Sites (number) – Class 1 Carriers	(2)	415	329	354	368	359	-	-		-2.4%	▼
5B-1	Producer-Car-Loading Sites (number) – Class 2 and 3 Carriers	(2)	122	155	129	106	108	-	-		1.9%	▲
5B-1	Producer-Car-Loading Sites (number) – All Carriers	(2)	537	484	483	474	467	-	-		-1.5%	▼
5B-2	Producer-Car Shipments (number) – Covered Hopper Cars	(1)	3,441	8,061	11,345	12,529	2,396	-	-	2,396	62.6%	▲

(1) – Year-To-Date values are reported for volume-related indicators only (i.e., Producer-Car Shipments). The accompanying percentage variance denotes the relative change in the current YTD value as compared to the same period a year earlier.

(2) – Quarterly values for non-volume-related indicators (i.e., Producer-Car-Loading Sites) are “as at” the end of the reporting period. The accompanying percentage variance denotes the relative change in the value of the most recent reporting period as compared to that at the end of the preceding crop year.

(3) – The GMP provides for the calculation of this indicator on an annual basis. Quarterly values are not available.





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*Additional copies of this report are available for downloading directly from the company's website.*





## **Appendix 1: Program Background**

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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 federal 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 is focused largely on the calculation of “producer netback.”



## Appendix 2: 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.<sup>46</sup> 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.

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.).

The screenshot shows the 'Producer NetBack Calculation' web interface. At the top, there is a navigation menu with 'My Profile', 'New Calculation', 'My History', 'Logout', and 'Help'. Below the menu, the title 'Producer NetBack Calculation' is displayed, followed by the instruction '(Enter the base information for the movement you want to estimate)'. The form includes several sections: 'Origin' with radio buttons for 'Use my home location' (selected) and 'Use this location'; location fields for Quarter (SW), Section (18), Township (12), Range (20), Meridian (W1), and Province (Manitoba); 'Delivery Point and Elevator' with a text field 'Pioneer Grain Company, Limited 4 BRANDON, MB' and a 'Search Elevator' link; 'Distance to Elevator (Miles)' set to 23 with a 'Calculate Mileage' button; 'Commodity' (Wheat), 'Binned Grade' (#2 CWRS 13.5), and 'Paid At Grade' (#1 CWRS 13.5); 'Estimated Dockage (%)' (1.0) and 'Gross Tonnes to Deliver' (60); 'Trucking Rate' (5 per Tonne), 'Number of Trips' (2), 'Trucking Mode' (Commercial), and 'Truck Type' (Tridom (tri-axle)); and 'Anticipated Trucking Premium' (\$3.50 per Net Tonne) and 'Other Premiums' (\$ per Net Tonne). A 'Calculate Estimate' button is located at the bottom of the form.

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

<sup>46</sup> 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.

Input	Results	Binned		Paid	
		Tonne	Bushel	Tonne	Bushel
Origin Point: SW 18X 12 X 20X W1	<b>CWB Pool Return Outlook</b>	\$192.00	\$5.23	\$196.00	\$5.33
Delivery Point: BRANDON	(Adj.) Freight To Vancouver			-\$43.87	
Grain Company: Pioneer Grain Company, Limited	(Adj.) Freight To Thunder Bay			-\$22.94	
Commodity: Wheat	Freight Adjustment Factor			\$9.00	
Binned Grade: #2 CWRS 13.5	<b>Applicable Freight</b>	\$32.77			
Paid At Grade: #1 CWRS 13.5	Trucking			\$5.05	
Estimated Dockage (%): 1.0	Primary Elevation			\$12.12	
Trucking Mode: Commercial	Dockage Cleaning			\$4.04	
Truck Type: Tridom (tri-axle)	<b>Sub-Total Other Costs</b>	\$21.21			
Number of Trips: 2	Trucking Premiums			\$(3.50)	
Gross Tonnes To Elevator: 60	Other Premiums			\$(0.00)	
Distance To Elevator (Miles): 23	<b>Sub-Total Producer Premiums</b>			\$(3.50)	
Trucking Premiums: \$3.50	<b>Total Export Basis</b>	\$50.48		\$50.48	
Other Premiums: \$0.00	<b>Producer Netback</b>	\$141.52	\$3.85	\$145.52	\$3.96

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

## **Appendix 3: Acknowledgements**

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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 Grain Monitoring Program (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 GMP. 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 program.

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