

# **Evaluation of the Contribution to the Canadian Wheat Board for Leasing of Hopper Cars**

Departmental Evaluation Services  
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**List of Acronyms**

CN	Canadian National Railway Company
CPR	Canadian Pacific Railway Company
CWB	Canadian Wheat Board
DES	Departmental Evaluation Services
FSU	Former Soviet Union
GC	Government of Canada
TB Submission	Treasury Board Submission
TBS	Treasury Board of Canada Secretariat
TC	Transport Canada
US	United States of America
USSR	Union of Soviet Socialist Republics
WGTA	<i>Western Grain Transportation Act</i>

## **EXECUTIVE SUMMARY**

### **Background**

- In March 1981, the Government of Canada (GC) entered into a contribution agreement with the Canadian Wheat Board (CWB) to lease, operate and maintain 2,000 grain hopper cars for use in the transportation of grain, oil-seeds and their products within Western Canada. The cars were purchased by various American financial institutions and leased to the CWB for a period of 20-25 years. The fleet was then provided free-of-ownership charges to the Canadian Pacific Railway (CPR) for the carriage of western grain and grain products within Western Canada. In return the railways assumed all maintenance costs.
- By the end of the program (July 2006), TC will have spent \$430 million reimbursing the CWB for long-term lease and associated costs.
- The contribution program will be ending in July 2006 and since there is no plan to renew or replace it, the purpose of the evaluation is to assess, for accountability purposes, the impact of federal monies spent.

### **Key Findings**

#### **Program Relevance**

- The program aligned with federal priorities of regional disparity, increasing trade and promotion of social and economic development.
- A shortfall in railway capacity to transport grain existed and was expected to increase.
- The federal role was necessary then, as neither the provinces nor the railways could meet demand for investment in the grain transportation system.
- With the removal of the Crow Rate, the federal government role is no longer necessary.

#### **Success and Impacts**

- The cars ensured the railways could meet commitments to transport grain.
- The cars ensured the grain shippers could meet peak sales requirements.
- The cars likely contributed to increased sales to overseas markets.
- Hopper Car availability increased grain-shipping efficiency.

#### **Cost-effectiveness**

- The lease of the 2,000 hopper cars was not the most cost-effective option available to the department and the Government chose this option despite alternate advice.

## **BACKGROUND**

### **Evaluation Rationale**

Transport Canada's (TC) Departmental Evaluation Services (DES) conducted the evaluation of the Contribution to the Canadian Wheat Board for Leasing of Hopper Cars Program to meet the Transfer Payment Policy requirements of the Treasury Board of Canada Secretariat. The contribution program will be ending in 2006 and since there is no plan to renew or replace it, the purpose of the evaluation is to assess, for accountability purposes, the impact of federal monies spent.

An evaluation plan was developed in consultation with representatives from Surface Policy in TC. DES conducted a literature review and augmented this with key informant interviews of representatives from TC, the Canadian Wheat Board (CWB), shippers, and others. Available statistical and financial data were also reviewed. Refer to Annex 1: Evaluation Matrix and Annex 2: Interview Questions for more information. It should be noted that this is the only evaluation conducted of the program since its start.

### **Program Context**

This evaluation deals with a program whereby TC reimburses the CWB their costs associated with leasing hopper cars for transport of grain in Western Canada. The CWB is the sole marketing agency for over 85,000 farmers who grow wheat, durum wheat and barley in Western Canada. In March 1981, the Government of Canada (GC) entered into a contribution agreement with the CWB to lease 2,000 grain hopper cars for use in the transportation of grain, oil-seeds and their products within Western Canada. The cars were purchased by various American financial institutions and leased to the CWB for a period of 20 to 25 years. The fleet was then provided free-of-ownership charges to the Canadian Pacific Railway (CPR) for the carriage of western grain and grain products within Western Canada. In return the railways assumed all maintenance costs. When not required for statutory movements, the cars were made available for the carriage of grain and other agricultural products in other parts of Canada for an alternate use fee. By the end of the program, TC will have spent \$430 million reimbursing the CWB for long-term lease and associated costs.

The program was created to ensure a sufficient number of hopper cars were available to transport western grain to port. Throughout the 1970s, the grain industry of Western Canada was increasingly concerned that the rail cars used to transport grain to port lacked sufficient capacity and were in poor physical condition to accomplish the task. Government subsidization of railway construction was a part of Canada's history. This included the Crow Rate, which provided farmers with a fixed rate, set in statute, for transporting grain produced in Western Canada for export. The rates remained relatively unchanged between 1897 and 1982. The rate kept freight costs at a low level compared to other commodities and by the 1960s, the transportation of grain was not compensatory to the major railways. As a result, the grain rolling stock and least profitable lines began to deteriorate. The railways had a policy of not investing without adequate return, which included investment in locomotives, line capacity as well as acquiring and repairing cars. As a result of the lost revenues, the railways had no incentive to invest in grain

transportation infrastructure, specifically the more modern covered hopper cars. Accordingly, the capacity to transport prairie grains to ports was reduced and contributed to sales losses.

**LOGIC MODEL**

The logic model below shows the link between the activities of the program and its outcomes. Since the concept of results based management did not exist when the program was created in 1981, this logic model was prepared by DES in consultation with Surface Policy, just before this evaluation started.

<b>Activities/ Outputs</b>	<b>Immediate Outcomes</b>	<b>Intermediate Outcomes</b>	<b>Ultimate Outcomes</b>
<p>TC administers contribution to CWB to pay the lease and administrative costs of:</p> <p>CWB lease of 2000 covered hopper cars through 7 leases with 6 US financial institutions</p> <p>Operating agreement between CWB and CPR for operation, utilization and maintenance</p>	<p>Increased grain hopper car fleet for CPR</p> <p>Increased capacity for CPR to transport western Canadian grain for export and other uses</p>	<p>Adequate capacity to meet grain movement requirements in Western Canada</p>	<p>Local and regional economic development</p>
<p style="text-align: center;"><b>Reach</b></p> <p>The target beneficiary of the contribution is the CWB</p> <p>The indirect beneficiaries are CPR, western Canadian grain producers, grain companies, the economy of Western Canada</p>			

## **Considerations and Limitations**

Evaluators had difficulty attributing results specifically to this lease program since the lease of the hopper cars was part of an overall government program which began in the 1970s and also included spending federal money on purchasing hopper cars, branch line rehabilitation and branch line subsidies. For this evaluation, it is important to keep in mind that the leased hopper cars were part of this overall program to ensure that western grain operators could meet demands to transport western grain. It is also important to consider that many of the participants and the literature the evaluators reviewed did not distinguish between the leased hopper cars and those that were purchased. Therefore, all the cars purchased or leased at that time are considered the “government” cars.

The government fleet consists of cars purchased by the federal government, provincial governments and the CWB. On June 10, 1972, the federal government purchased 2,000 modern, covered steel hopper cars and turned them over to the railways to use for the movement of grain. Over the next 13 years the government purchased an additional 11,120 cars, leased another 2000, the ones covered in this evaluation, on a long-term lease, and made all these available to the railways for prairie grain service. In this same time period, the provincial governments of Saskatchewan and Alberta each purchased 1,000 hopper cars and the CWB bought 2,000 (given to CN), for a total of 19,120. As well, the Manitoba government refurbished 400 boxcars for service to Churchill. The program also included refurbishing 2,000 boxcars on a 50:50 cost share between the federal government and the railways. All these cars were given to the CN and CP railways to use free of charge to move prairie farmers' grain to export position more efficiently.

In addition, it should be noted that this is the first evaluation done of the leased cars or any other of the related subsidies since the programs started in the early 1980s. Due to the 25 year time lapse, the evaluation relied heavily on historical data sources and second hand knowledge of key respondents.

## **PROGRAM RELEVANCE AND DEMAND**

### **The program aligned with federal priorities.**

The program was relevant in addressing regional disparity, increasing trade, and promoting social and economic developments, which were all priorities of the government in place at the time.

While the evaluators could not determine the specific departmental priorities in the late 1970s and early 1980s, the 1979-80 annual report for TC states that “The Grain Handling and Transportation Directorate continued to support the government’s major effort to improve the movement of export grain by 50 percent by 1985”. This statement as well as other evidence found by the evaluators shows the leased hopper car program fit with overall regional disparity priorities of the government in place at the time. Respondents to the interviews conducted for this evaluation noted that there were a lot of subsidies being given to the railways for such things as line rehabilitation and boxcar rehabilitation. This would suggest that there was an overall priority to fix problems with transportation of grain in the west. Through the 1970s and early 1980s, the same federal party was in power. Evidence of their priorities can be found in the 1974 Throne Speech which stated “transportation must be an instrument of national policy, designed to achieve broad social and economic objective.” Other highlights of regional priorities are shown by the establishment of the Department of Regional Economic Expansion which was intended to reduce regional disparities and the hosting of a regional conference by the federal government, which resulted in regional commitments on such things as transportation and prairie agriculture.

The program also appears to have fit well with government direction to increase trade with countries other than the United States of America (US). The contribution agreement signed between CWB and TC stated that “The CWB shall ensure that any operating agreements or arrangements made for the use of these cars contain a prohibition against their use at any time for transporting any commodity outside of Canada.” This meant that, unlike the rest of the cars purchased by the federal government, which were free to be used as part of a North American fleet (going in and out of the US interchangeably), these cars could not be sent into the US or other parts of Canada without specific agreement from the Minister. This provision in the contribution agreement seems to relate to pressure, at that time, to increase overseas trade. During the 1970s and early 1980s, Canada along with most countries in the world had to face serious economic problems. While not officially documented, some consideration should be given to the influence of the “Third Option” on the direction for hopper car uses. Developed by Prime Minister Trudeau in 1970, a white paper on foreign policy for Canadians outlined options for government programs to take advantage of the markets of the Pacific region. This “Third Option” was an unofficial policy of reducing Canada’s dependence on the US by increasing links elsewhere, including China, the USSR and Japan.<sup>1</sup> The 2,000 leased hopper cars covered by this evaluation report would have assisted in increasing overseas grain exports by enhancing capacity to move grain to western ports. According to respondents, sales did increase to USSR, China and other Asian countries in the late

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<sup>1</sup>[http://www.international.gc.ca/departement/history/canada9-en.asp#third\\_opinion](http://www.international.gc.ca/departement/history/canada9-en.asp#third_opinion)  
*Departmental Evaluation Services*



1980s and early 1990s and the cars were critical for meeting export requirements. This is supported in a report entitled *The Economics of Single Desk Selling of Western Canadian Grain*. In the report, the authors affirm both China and the USSR were large wheat importers during the early 1980s and the CWB relied heavily on these two markets.

**A shortfall in railway capacity existed and was expected to increase.**

There was a shortfall in railways' capacity to transport western grain during peak shipping periods. This was due to a combination of an expected increase in capacity requirements coupled with a fleet consisting of aging boxcars that were nearing the end of their years of service and were not as efficient as covered hopper cars. The capacity problem also existed because the legislated Crow Rate (the rate the farmers paid the railways to transport grain) was a disincentive to railways' investment in their stock.

The boxcars not only lacked sufficient capacity, but were also hard to load and aging rapidly. The Discussion Paper, "Acquisition of Grain Cars" and all of the respondents indicated that the stock of old boxcars, which were the primary means by which the railways moved grain to port, was in constant decline and could not meet the demand required to transport the grain to port. The respondents also noted that the boxcars were much harder to load and not as efficient both in time and manpower required compared to the more modern hopper car, which was becoming the norm in the industry. The average age of the cars was well over 30 years. In 1960, the railways had a fleet of 30,000 boxcars compared to 13,500 cars in 1979. This number would decrease to 10,500 cars as of December 1981 because the cars had to be removed from service since repairing them was uneconomical or impossible.

The shipping requirements were expected to increase and it was anticipated that this combined with the already declining stock would result in a significant lack of capacity. In a report titled *System Design Parameters and Rail Car Requirements to 1990*, by the Grain Transportation Authority, an analysis of the increasing decline in the ability to transport grain was provided. The analysis was based on the assumptions that no new cars would be purchased and that the cycle time (from the grain elevator to port position) would be improved. As shown in Table 1, car requirements for the movement of grain by rail were expected to increase from 32.8 million tonnes in 1981-82 to 35.7 million tonnes in 1985-86 and 39.5 million tonnes in 1990-91. On the other hand, projected carrying capacity of the fleet as a whole was expected to decline from 32.8 million tonnes in 1981-82 to 27.8 million tonnes in 1985-86 and 26 million tonnes in 1990-91. As a result, the projected deficit in capacity was 7.9 million tonnes in 1985-86 and 13.5 million tonnes in 1990-91. This analysis took into account the 7,346 CPR and 6,628 CN hopper cars, which had become part of the grain fleet and were expected to last the following 10 years.

Table 1: 1980 Projections of Rail Car Requirements and Capacity for Grain

	Millions of Tonnes		
	1981/82	1985/86	1990/91
<b>Projected Requirements for Movement by Rail</b>			
1. Total Western Production of the 6 Major Grains	*	48.2	52.8
2. Exports (production minus domestic utilization)	*	28.6	31.9
3. Products Processed for Export	*	1.5	1.5
4. Domestic Movement	*	5.6	6.1
5. Total Movement by Rail (2+3+4)	32.8	35.7	39.5
<b>Projected Rail Car Capacity</b>			
6. Projected Capacity with no cycle time improvement	32.0	26.3	22.1**
7. Capacity increase through cycle time improvement	0.8	1.5	3.9
8. Projected Capacity (6+7)	32.8	27.8	26.0
<b>Projected Deficit Capacity</b> (5-8 - movement minus capacity)			
	0.0	7.9	13.5

\* This information was not provided in the report

\*\* The decline was attributable to the attrition of the boxcar fleet

As shown in Table 2, assuming no increase or decrease to cycle times existed, the shortfall in rail car numbers would have been 6,540 cars in 1985-86 and 12,520 cars in 1990. Based on an analysis of the table, both the report titled *System Design Parameters and Rail Car Requirements to 1990* and a subsequent report entitled *Grain Transportation and Handling in Western Canada* recommended putting more rail cars into the system.

Table 2: Projected Shortfall in Rail Cars by Year

	Cumulative	Annual
1981/82	510	510
1982/83	1,680	1,170
1983/84	3,090	1,410
1984/85	4,960	1,870
1985/86	6,540	1,580
1986/87	7,940	1,400
1987/88	9,150	1,210
1988/89	10,530	1,380
1989/90	11,710	1,180
1990/91	12,520	810

Through the 1970s, Canada, like many other countries, found that high inflation, large fiscal deficits, and rising public debt exacted a heavy toll on the economy. The lack of capacity contributed to the economic problems of farmers, shippers and railways working in Western Canada. In 1972, the prairie farmers were concerned the performance of the grain transportation system was reaching critical proportions. According to the Discussion Paper, shipments to port were far behind target and the railways were unable to catch up. The Discussion Paper also stated that costs to both the prairie and Canadian

economies as a result of the loss and deferred grain sales were substantial. Not confirmed in this evaluation by other sources, the Discussion Paper noted that in 1977-78 alone, lost and deferred sales to the CWB were valued at \$600 million while ship demurrage costs (compensation paid because a ship is detained beyond the scheduled time of departure) of \$21.9 million were incurred.

**The federal role was necessary then.**

The federal role was necessary as neither the railways nor the provinces could meet the demand for investment in the grain transportation system.

Since the Crow Rate did not keep pace with other rates, the railways were not provided with sufficient revenue to invest in rolling stock for grain. The Crow's Nest Pass Agreement set the railways' rates for the movement of grain from Western Canada to export position in statute. That is, the "Crow Rate", instituted in 1897, provided farmers with a fixed rate for transporting grain produced in Western Canada for export. Due to this fixed rate, during the 1960s, the railways' revenues for the movement of grain fell below the level of variable cost. The railways began to defer investment in grain transportation infrastructure, which resulted in the deterioration of the grain rolling stock and least profitable lines. The main rationale for government acquisition of grain cars was the losses the railways were incurring in the carriage of grain in Western Canada. Had the Crow Rate issue been resolved, the railways would have been better positioned financially to provide the required capacity. TC concluded in the Discussion Paper that resolution of the problem could not be deferred pending action on the Crow Rate given it would involve extensive federal, provincial and railway consultations and negotiations. The cars would be required regardless of the outcome.

The respondents from key informant interviews all agreed that federal involvement was necessary because the railways did not have sufficient capital to buy cars and they could not increase their rates to recoup the costs. Both the respondents and the Discussion Paper indicated that if the federal government had dealt with the Crow Rate the government would not have had to be involved since the railways would have purchased or rented cars to meet shipping demands.

The federal role was also necessary because the provinces did not appear to be in a position to address the issue. Saskatchewan did purchase 1,000 cars; Alberta purchased 1,000 cars; and Manitoba refurbished 400 boxcars. This was not enough to meet the demand. The evaluators were unable to determine why they did not or could not buy more. The Discussion Paper notes that the CWB proposed the acquisition of 10,000 cars by 1985 on a 50:50 cost share with the provinces but the provinces were reluctant to discuss this proposal in isolation of the Crow Rate issue and other major grain handling and transportation options. It was also noted that they would be unlikely to shoulder the cost without another substantive federal concession. Furthermore, the grain handling and transportation problems were a regional economic and social issue and not provincially specific so it was reasonable to expect that the federal government would be the main player in the solution as regional development was a government priority at the time. The respondents also indicated that when assessing the need for the federal role in leasing hopper cars, it was important for the evaluators to keep in mind that the CWB had

already purchased 2,000 cars and had turned them over to Canadian National Railway (CN). They indicated that to keep things balanced, the CWB needed to also supply CP with 2,000 cars.

**With the removal of the Crow Rate, the federal government role is no longer necessary.**

Not long after the cars were leased, the government began making changes to the Crow Rate. In 1984, the Crow Rate was changed with the introduction of the Western Grain Transportation Act (WGTA). In 1996, the Crow Rate was removed with the abolishment of the WGTA. With the removal of the distortion of rates the railways are now being compensated for transporting grain, making it possible for the railways to incur the costs of acquiring and maintaining a grain fleet for the transportation of western grain.

## **PROGRAM SUCCESS AND IMPACTS**

### **The cars ensured the railways could meet commitments to transport grain.**

There were not enough suitable cars before the leased cars were provided to meet shipper and farmer requirements to ship grain. The cars allowed railways to do so. It is important to reiterate that when researching the success of the leased hopper cars, many of the documents and key stakeholders interviewed did not make a distinction between whether the cars were leased or owned and by whom. All of the respondents agreed that the cars allowed the railways to transport grain more efficiently and provided a capacity that was not previously there.

The 19,000 hopper cars referred to as the ‘government fleet’ make up a major portion of the fleet that moves prairie grain. During peak demand periods, the publicly owned cars are augmented by railway owned cars and cars leased by the railways. The normal size of the grain fleet of Canada is about 26,000 cars. At times of peak demand, the fleet can reach 29,000 cars, but even then it can be seen that the government cars represent a major portion of the required rolling stock.

### **The cars ensured the grain shippers could meet peak sales requirements.**

Both markets and sales were being lost as a result of an inadequate supply of cars. The new cars addressed this problem. One of the reasons the federal hopper car fleet was initially acquired was because markets were being lost as a result of an inadequate supply of rolling stock. In the early 1970s both the farm economy and the country's balance of payments were suffering. The government of the day determined that public subsidy of the rolling stock was the best mechanism to address the market needs of the western grains and oilseeds industry. Thus, the cars have been provided for the benefit of western producers for the past 30 years. The costs to both the prairie and Canadian economies as a result of the loss and deferred grain sales were substantial. To prevent further losses, the CWB was encouraged to lease the cars from corporations who could provide the cars in time to meet late summer and early fall peak requirements for grain movements in 1981. The interview respondents agreed the cars were and remain important for meeting peak sales requirements.

### **The cars likely contributed to increased sales to overseas markets.**

Provisions for the use of the cars ensured they were used for transporting grain from Western Canada to port position. The operating agreements for the leased hopper cars contain a prohibition against their use, at any time, for transporting any commodity to a destination outside Canada – unless Ministerial authority is obtained. The evaluator found no documentation stating why this provision was put into place but it is noteworthy that this provision was not put onto any of the other government car arrangements. The government of the day was trying to rely less on the US for trade and was seeking increased trade with the China and other foreign countries. It is plausible the provision was to ensure the cars could facilitate increased overseas export. Some evidence of this came from the responses to the key informant interviews in which respondents indicated

that in the 1980s sales to the USSR increased and in the early 1990s sales increased to China and other Asian countries. They stated “these cars were absolutely critical” as Canada was moving 300 million tonnes of export. According to one respondent, the 2,000 cars are roughly 10% of the government fleet and thus the sales from roughly 10% of each crop would have been lost were the cars not available.

**Hopper Car availability increased grain-shipping efficiency.**

A side benefit to the more modern hopper cars was an increased efficiency compared to the old box cars. The respondents all agreed that the hopper cars were better equipment and allowed for more efficient loading and unloading. They explained that they were not only quicker but safer. One person could load the hopper cars to capacity in approximately 8 minutes where the boxcars could not be loaded to capacity and required at least three people and 30 minutes to load. The hopper cars also allowed faster and less labour intensive unloading at port, which provided a huge efficiency gain. And finally, there was flexibility to carry different products such as phosrock (fertilizer) and plastic pellets.

## PROGRAM COST-EFFECTIVENESS

**The lease of the 2,000 hopper cars was not the most cost-effective option available to the department.**

The government chose the lease option from five options presented in the Discussion Paper. Options considered by government to increase the size of the hopper car fleet were:

- Not to purchase additional cars - making it impossible to maintain or increase export movements;
- purchase an additional 5,700 cars – as per recommendations from the executive summary of the report *Grain Transportation and Handling in Western Canada*;
- purchase less than 5,700 cars – would not assure the industry that increased sales delivery commitments could be met;
- lease cars – few cars were available for immediate release; and
- grain company and producer-owned cars - viable in the future but not under the Crow Rates.

Financial considerations in the Discussion Paper included:

- direct purchase through government appropriations – the simplest option;
- CWB purchase out of grain producer funds – would be considerable opposition;
- shared arrangements with western provincial governments – provinces reluctant to consider this option outside resolving the entire grain handling and transportation problem; and
- private industry financing through lease-purchase arrangements – the costs would be considerably higher than direct government or CWB purchase.

The decision was made to lease the cars despite the fact that this option would incur much higher lifetime costs than other options. When considering options to buy or lease the hopper cars, the department obtained a legal opinion that advised the lease of the cars was not the best option. Briefing material from that time also shows that the option to lease was not the first choice of the department. The Discussion Paper noted that the lifetime costs to the government would be much higher than if the government or the CWB were to purchase the cars outright.

Table 3: Prospective Comparison of Purchase and Lease Options in 1980

	<b>Purchase Option</b>	<b>Lease Option (chosen)</b>
Initial outlay 1980/81	\$83-86 million (1979\$)	\$10.838 million (\$3.475 million + \$7.363 million) (1980\$)
Annual lease costs	0	\$12 million per year (current \$)
Total costs	\$83-86 million (1979\$)	Approximately \$325 million (current \$)
Years of use of cars	35-40 years (full life of cars)	25 years (period of lease)

Table 3 shows a comparison of the purchase and lease options based on information available in 1980. For the leased option, initial acquisition costs were approximated at \$3,475,000 and interim lease costs at \$7,362,675. After the first year, annual lease costs for the next 20 years were approximated at \$12 million per year. Over the 25 years of the lease, total costs were approximated at \$325 million. On the other hand, the cost of the outright purchase of the cars was estimated between \$83 and \$86 million. In TC documents, the 1982-83 purchase cost was approximated at \$83 million, whereas according to the report *Grain Transportation and Handling in Canada*, 2,000 cars could have been purchased at \$86 million (at the 1979 price of \$43 thousand per car). This report also noted that for the lease option, at the end of the lease the cars would have reverted back to the owner and could have been purchased by the government at fair market prices or released for the balance of their useful 35 to 40 year life span. For the purchase option, the cars would be the property of the government for their entire 35 to 40 year life.

Table 4: Retrospective Comparison of Purchase and Lease Options in 2006

	<b>Purchase Option</b>	<b>Lease Option (chosen)</b>
Initial outlay	\$83-86 million (1979\$)	\$10.838 million (\$3.475 million + \$7.363 million) (1980\$)
Annual lease costs	0	\$12-21 million per year (current \$)*
Total costs	\$83-86 million (1979\$)	\$416.8 million (current \$)**
<b>Total costs converted to 1997\$</b>	<b>\$139 million</b>	<b>\$438 million</b>
Years of use of cars	35-40 years (full life of cars)	25 years (period of lease)

\* lease payments were in US \$ and therefore varied according to the strength of the Canadian \$

\*\* 2005-06 and 2006-07 costs approximated

The evaluators conducted a retrospective comparative analysis of the same two options which showed that the real cost to government of the lease option was over three times the cost it would have incurred to purchase the cars in 1980. For purposes of the analysis, all costs were converted to a constant 1997\$ resulting in an approximate cost of \$139 million for the purchase option as compared to a \$438 million cost for the lease option. This means that, as proposed by the initial program analysts, by leasing the cars, the long-term costs were far less cost effective than buying the cars – approximately \$300 million more, in 1997\$, than a one-time payment would have been. Details of the analysis can be found in Annex 4.

According to historical documents, in the late 1970s and early 1980s the government was under fiscal restraint and it is foreseeable they did not wish to expend funds on such a large capital purchase. According to the Discussion Paper there was a need, at that time, for continued overall fiscal restraint and a one-time purchase would have increased the federal deficit. The Discussion Paper did point out that leasing would eliminate the need for a one-time large initial capital investment and the cars could be put on an annual



operating-cost. TC was directed to lease the cars, which suggests that the Government preferred avoiding the one time expense at a time of deficit financing.

Another factor considered in the decision to lease rather than buy the cars and to use American leasing corporations seem to be the timeliness of receiving the cars. American leasing corporations already had contracts in place with Canadian car builders. These existing contracts meant they could provide the cars in time to meet peak sales requirements in the late summer and early fall of 1980.

Interviews support the hypothesis that the cars were leased rather than purchased so the government would not have such a high one-time payment. In addition, the Discussion Paper notes that the avoidance of a large one-time payment by choosing the lease option would allow the government to invest in other grain transportation improvements in the following four years. For instance, a substantial branch line upgrade would need to be undertaken as the steel hopper car was too heavy to run on 50 % of the existing rail lines. If they had decided to purchase the cars, it may have meant the money for these upgrades would not have been available.

**Annex 1: Key References**

1. Minister of Transport and Minister Responsible for The Canadian Wheat Board, (1979) “Discussion Paper: Acquisition of Grain Hopper Cars”
2. Booze, Allen & Hamilton Inc., (1979) *Grain Transportation and Handling in Western Canada, Executive Summary*
3. Grain Transportation Authority (1980) *System Design Parameters and Rail Car Requirements to 1981 to 1990*
4. Carter, M.A.; Lyons, R.M.A. (2001) *The Economics of Single Desk Selling of Western Grain in Canada* – funded by the Government of Alberta

**Annex 2: Evaluation Plan**

<b>Program Relevance</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Methodology</b>
1. Did the program align with governmental and departmental policies and priorities?	<ul style="list-style-type: none"> <li>- Consistency between program objectives and governmental policy objectives</li> <li>- Consistency between program objectives and departmental strategic objectives</li> </ul>	<ul style="list-style-type: none"> <li>- Departmental policy documents, such as the 1980 policy</li> <li>- Federal policy documents, such as Budget Plan 1996</li> </ul>	<ul style="list-style-type: none"> <li>- Literature review</li> </ul>
2. Was there a shortfall in the railways' capacity to transport western grain? Was TC involvement necessary and legitimate?	<ul style="list-style-type: none"> <li>- Capacity for export of statutory grain</li> <li>- Overlap with other programs</li> <li>- Opinion of stakeholders and TC staff</li> </ul>	<ul style="list-style-type: none"> <li>- Program files</li> <li>- Internet</li> <li>- TC staff/CWB staff/ CPR staff</li> <li>- Representatives of grain producers</li> <li>- Federal Government documents, such as Budget Plan 1996</li> </ul>	<ul style="list-style-type: none"> <li>- Literature review</li> <li>- File review</li> <li>- Interview</li> <li>- Statistical analysis</li> </ul>
<b>Program Success</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Methodology</b>
3. What impact did the acquired hopper cars have on the ability of CPR to transport statutory grain in Western Canada? (demand vs. supply)	<ul style="list-style-type: none"> <li>- Comparative analysis pre and post hopper car leases</li> <li>- Size of the fleet and amount cars can carry relative to grain produced</li> <li>- Financial situation (profits?)</li> <li>- % used for statutory grain vs. other uses</li> </ul>	<ul style="list-style-type: none"> <li>- CPR representatives</li> <li>- CWB records</li> <li>- Statistics Canada</li> <li>- Grain office (Winnipeg)</li> <li>- CPR annual reports</li> </ul>	<ul style="list-style-type: none"> <li>- Interview</li> <li>- Literature review</li> <li>- Statistical analysis</li> <li>- Capacity analysis</li> </ul>
4. What impact did the acquired hopper cars have on the ability to meet sales requirements and commitments?	<ul style="list-style-type: none"> <li>- Opinions of TC staff, CWB staff, CPR, grain producers, grain companies</li> <li>- Ability of CWB, grain companies to meet sale commitments</li> <li>- Producers ability to load own cars</li> </ul>	<ul style="list-style-type: none"> <li>- TC staff, CWB staff, representatives of grain companies</li> <li>- Financial reports</li> <li>- Analysis for selling hopper cars</li> </ul>	<ul style="list-style-type: none"> <li>- Interview</li> <li>- File review</li> </ul>
5. What other impacts or benefits occurred as a result of the TC contribution?	<ul style="list-style-type: none"> <li>- Opinions of TC staff and stakeholders</li> <li>- State of the economy (stable?)</li> <li>- Other benefits, such as economic and local development</li> </ul>	<ul style="list-style-type: none"> <li>- Statistics Canada</li> <li>- Stakeholders such as representatives of grain companies, producers and the CWB</li> <li>- TC staff</li> </ul>	<ul style="list-style-type: none"> <li>- Literature review</li> <li>- Interview</li> <li>- Statistical analysis</li> </ul>
<b>Cost-Effectiveness</b>	<b>Indicators</b>	<b>Data Sources</b>	<b>Methodology</b>
6. Was the program the most cost-effective means of achieving the intended objectives?	<ul style="list-style-type: none"> <li>- Other delivery mechanisms/partnerships</li> <li>- Comparison with bought hopper cars</li> </ul>	<ul style="list-style-type: none"> <li>- Staff files</li> <li>- Financial records</li> <li>- Audit results</li> </ul>	<ul style="list-style-type: none"> <li>- File review</li> <li>- Economic analysis</li> </ul>

### **Annex 3: Interview Questions**

Evaluation of the Transport Canada Contribution to The Canadian Wheat Board for the Lease of Hopper Cars

In March 1981, Government of Canada entered into a contribution agreement with The Canadian Wheat Board to lease 2,000 hopper cars for the transportation of grain, oil-seeds and their products in Western Canada. Following Treasury Board Secretariat requirements, Transport Canada is conducting an evaluation of the contribution to assess the impact of federal monies spent.

#### ***Questions***

1. What is the nature of your involvement with the leased hopper cars provided by the Government of Canada to transport western grain?
2. To what extent was there a shortfall in the railways' capacity to transport western grain? Why?
3. What impact did the leased hopper cars have on the ability of railways to transport statutory grain in Western Canada?
4. What impact did the acquired hopper cars have on the ability of grain companies to meet sales requirements and commitments in the early 1980s?
5. What other impacts or benefits have occurred as a result of the leased hopper cars?
6. Were there other more cost-effective ways to meet grain transportation requirements?
7. In your opinion, was the involvement of Transport Canada necessary?

## Annex 4: Retrospective Comparative Analysis of Purchase and Lease Options

### Conversion of Lease Costs to 1997\$

	Payment in current \$ **	GDP deflator to 1997\$***	Payment in 1997 \$
*1980/81	\$10,838,000	0.619	\$17,503,719
*1981/82	\$12,000,000	0.692	\$17,330,600
*1982/83	\$18,383,000	0.775	\$23,733,032
1983/84	\$17,054,000	0.835	\$20,434,442
1984/85	\$16,142,000	0.867	\$18,620,004
1985/86	\$16,222,000	0.886	\$18,299,487
*1986/87	\$17,242,000	0.944	\$18,263,248
1987/88	\$16,429,000	0.972	\$16,906,786
1988/89	\$15,320,391	0.966	\$15,866,746
1989/90	\$14,867,000	0.980	\$15,174,718
1990/91	\$12,177,000	1.016	\$11,984,869
1991/92	\$14,927,000	1.010	\$14,778,852
1992/93	\$12,888,000	0.977	\$13,192,439
1993/94	\$17,759,000	0.980	\$18,117,134
1994/95	\$19,115,000	0.988	\$19,350,202
1995/96	\$18,207,000	1.032	\$17,649,026
1996/97	\$17,116,000	1.015	\$16,859,674
1997/98	\$18,991,000	<b>1.000</b>	\$18,991,000
1998/99	\$20,963,000	0.975	\$21,506,863
1999/00	\$20,008,000	0.998	\$20,046,478
2000/01	\$18,208,000	1.026	\$17,740,959
2001/02	\$16,416,000	1.051	\$15,616,913
2002/03	\$16,045,000	1.091	\$14,702,699
2003/04	\$12,913,000	1.088	\$11,871,436
2004/05	\$12,309,000	1.107	\$11,115,373
2005/06****	\$12,561,000	1.127	\$11,145,519
2006/07****	\$1,775,000	1.147	\$1,547,515
<b>TOTAL</b>	<b>\$416,875,391</b>		<b>\$438,349,734</b>

\* actuals were unavailable; Main Estimates used for 1980-81, 1981-82, 1982-83 and 1986-87

\*\* Lease payments for all years are taken from the Public Accounts of Canada except for: note \* above and note \*\*\*\* below

\*\*\* deflator in calendar year

\*\*\*\* GDP deflator approximated at 2% for each year; estimated payments provided by program

**Conversion of Purchase Cost to 1997\$**

	Payment in current \$ **	GDP deflator to 1997\$***	Payment in 1997 \$
1980/81	\$86,000,000	0.619	\$138,892,770