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The Canadian Wheat Board

How Well Has It Performed?

by Andrew Schmitz, Hartley Furtan, Harvey Brooks, and Richard Gray

The Canadian Wheat Board (CWB), a monopoly exporter of Canadian wheat, barley, and durum, has been challenged by a segment of Canadian farmers, U.S. farm groups, and the U.S. government. We offer, here, our assessment of an important part of the CWB monopoly controversy. We evaluate the effect of the CWB on prices, market shares, and other measures of its performance.

Canada is a major exporter of wheat and barley. In 1996/97, Canada is forecasted to have 22 percent of the wheat export market, 61 percent of the durum export market, and 40 percent of the barley export market. By law, all these exports must be made through the CWB. This monopoly on exports, however, is now under fire from a number of fronts. First, in 1993, the Honorable C. Mayer, former minister of agriculture, removed the sale of barley to the United States from the sole jurisdiction of the CWB. A subsequent court challenge, however, placed barley back under the CWB's jurisdiction. Second, since 1995, a segment of prairie farmers have openly defied Canadian law and have sold grain to the United States without CWB permits. The farmers' defiance of the law is now working its way through the courts. Third, in the fall of 1995, a group of Canadian farmers challenged the CWB monopoly under the Canadian Charter of Rights and Freedoms. This case, often called the Charter case, began in the federal court in September 1996, and a ruling is expected to be made by May 1997. Fourth, in 1995 the current minister of agriculture, the Honorable R. Goodale, put into place a review process (Western Grain Marketing Panel) to examine the Canadian grain marketing system. The Panel's report called for far-reaching changes in the way the CWB operates, but it did not suggest changes to the CWB monopoly in wheat, durum, and malting barley. Fifth, in 1997, farmers will vote their preference for or against CWB monopoly control over barley.

In several investigations, the United States examined CWB monopoly operations and their effect on Canada/United States grain trade. These included the 1990 U.S. International Trade Commission (ITC) study—a fact-finding study under Section 332 of the Tariff Act of 1930, as amended in 1990—of Canadian durum wheat exports to the United States; the 1994 Canada/United States Trade Agreement (CUSTA) Binational Panel to investigate Canadian durum exports; and the 1994 ITC investigation into Canadian wheat exports that, in 1994/95, led to a U.S. wheat and durum import control agreement with Canada. Also, the United States is indicating that, under the World Trade Organization (WTO), state-trading organizations should be required to make notifications to the WTO that would insure transparency of their activities (Article XVII of the GATT, 1994).

The Canadian Wheat Board

The CWB markets grain on behalf of farmers in the western provinces of Manitoba, Saskatchewan, Alberta, and parts of British Columbia. It is the sole seller of these farmers' wheat, durum, and barley for export to world markets and for human consumption in the domestic market. The extent of the CWB monopoly is limited by many competing international sellers who also can export wheat and barley into Canada. The CWB contracts for Canada's elevator services (including cleaning and storage), transportation, and terminal elevator services. The CWB is the thirty-third largest business corporation in Canada and the fourth largest exporting company in Canada, with annual gross sales greater than $4.0 billion.

The federal government first marketed wheat in 1917 when it appointed a Board of Grain Supervisors. To fulfill wartime needs for the 1917/18 and 1918/19 crop years, this board assumed monopoly control. After WW I, other institutions, including the major farmer-owned cooperatives, sold wheat for export (Schmitz and McCalla). Following the

financial collapse of the prairie pooling cooperatives in the early 1930s, the CWB was instituted in 1935 as a voluntary marketing agency for wheat. In 1943, the Canadian government made the CWB the mandatory monopoly marketing agency for prairie wheat. The government added barley and oats to the board's authority in 1949. The CWB controlled the export of these grains, the interprovincial movement of grain, and the sale of grain to all domestic users. Beginning in 1935, the CWB operated under the Canadian Wheat Board Act and was established as a federal crown agency in 1967.

Over time, certain powers of the CWB monopoly were removed. First, in 1974 the government gave farmers the option to domestically sell feed wheat, oats, and barley for nonhuman consumption through the open market. Currently, feed wheat and feed barley contracts are traded on the Winnipeg Commodity Exchange (WCE). Second, the CWB no longer controls interprovincial grain movement. Finally, in 1989, the government removed the CWB's monopoly status over oats and WCE now trades oat contracts.

According to various CWB publications, the CWB mandate is to *(a)* obtain the best prices available for producers during the marketing period, *(b)* pool the risk associated with adverse price movements, and *(c)* guarantee, for producers, equitable access to markets during the delivery period of a crop year. The CWB achieves this stated mandate through two basic mechanisms. First, as a result of the limited capacity of the grain-handling and grain-transportation systems in western Canada, the CWB allocates to each farmer a delivery quota that allows him or her access to the commercial grain-handling system over the course of the crop year (each farmer who sells grain to the CWB has a CWB quota book). Through these mechanisms, the CWB calls grain into the system as required to meet sales commitments. This delivery quota evolved from a quota per seeded acre, through a quota based on total farm acreage, to a combination of both farm acreage and delivery contracts. These delivery quota changes were designed to match the limited capacity of the Canadian elevator and grain-transportation systems with the specific export demand by grain and grade. Second, the CWB pays farmers a pooled price for each class and grade of wheat, barley, and durum. When farmers deliver grain within the quota, they receive a government guaranteed initial payment—usually 70 to 80 percent of the projected final realized price. The CWB makes adjustment payment(s) throughout the pool year. After all of the grain sales are complete for each sales period, the CWB closes out the sales account and gives farmers a final payment. This final CWB payment is the amount paid to farmers from sales receipts above the initial and interim payments made to producers, after all operating costs of the CWB have been deducted. After accounting for transport costs, each farmer receives the same final price for each grade and class of grain delivered to a particular location.

Economic performance of the CWB

The CWB's performance is a hotly debated issue, in part because there is no single yardstick by which to measure its performance, and in part because other components of the grain system affect farm grain prices and sales. In addition, the international grain markets are difficult to model because they are imperfectly competitive in nature. To understand its performance, the CWB must be viewed within the context of the entire Canadian regulatory framework. This framework includes the Canadian Grain Commission (CGC), which is a fed-

eral agency that sets grain quality standards and grades, as well as the Car Allocation Policy Group that regulates rail car allocation.

The performance of the CWB, debated in the aforementioned Charter case, can be evaluated in the context of four major criteria: price premiums, marketing and basis costs, farmgate prices, and market shares.

Price premiums

At least five major reports argue that the CWB is able to obtain price premiums (Schmitz 1996a). (We are not aware of any studies that argue the CWB price premiums are negative. However, Carter and Loyns extensively discussed the premiums earned by the CWB.) A premium is defined as the difference between the price obtained by the CWB and the price that would be obtainable under a Canadian multiple-seller environment. The CWB earns price premiums primarily because it can price discriminate (charge different customers different prices for the same quality grain) among markets (Schmitz 1996a; Kraft, Furtan, and Tyrchniewicz)

Carter (1992) was the first to estimate significant price premiums. He found premiums to range as high as Can$27/tonne for Canadian wheat sales to the former Soviet Union, Can$26/tonne to Japan, and Can$8/tonne to China. Kraft, Furtan, and Tyrchniewicz estimated that the CWB premium for wheat ranged between Can$13.35/tonne and Can$36/tonne, depending upon how the U.S. Export Enhancement Program (EEP) was factored into the analysis. EEP increased the ability of the CWB to price discriminate because under EEP the United States, one of Canada's major competitors, also price discriminated among markets through the use of governmental rebates to private grain traders. Schmitz, Gray, and Ulrich made a similar claim for CWB malting barley premiums at roughly Can$30/tonne. More recently, Schmitz et al. (1997) estimated that the CWB earned premiums of Can$3.52/tonne for feed barley, Can$34.06/tonne for two-row malting barley, and Can$42.01/tonne on six-row malting barley. (The CWB earned barley producers an additional Can$72 million over what would be the case with multiple sellers.) Wilson also found a "Canadian factor" of approximately Can$25/tonne for CWB sales to Japan. These premiums often raised the prices of farm wheat and malting barley by at least 15 percent over prices that would prevail in a multiple-seller environment.

The United States and the European Union are also state traders because they manage EEP and restitution payments, both of which distort trade (Rossmiller and Sorenson). Because of the premiums earned, the CWB helps Canadian farmers compete against these trade-distorting policies. Kraft, Furtan, and Tyrchniewicz estimated that CWB marketing provides in the neighborhood of Can$265 million per year to Canadian wheat farmers.

It is important to stress that the Canadian grain-marketing system emphasizes quality, end-use characteristics, product availability, post-sales services, and technical knowledge. These factors are encompassed in the CWB's approach to the sale of wheat, durum, and malting barley. The premiums found by Carter (1992), by Schmitz, Gray, and Ulrich, and by Wilson are a result of both price discrimination by the CWB and the fact that the Canadian system provides attributes, such as grain cleanliness, that other systems do not. However, the premiums found by Kraft, Furtan, and Tyrchniewicz are solely a result of the CWB's ability to price discriminate.

Canada's focus on quality has provided a marketing advantage over the United States. As Christianson pointed out, "...quality issues are becoming increasingly important in the grain trade.... The United States may have the most inconsistent product of any wheat exporter in the world. Inconsistent quality is the number two problem of the U.S. wheat industry, right behind wheat cleanliness" (pp. 21–22).

For barley, different studies showed different CWB performance. These studies evaluated CWB performance alongside a continental barley market (CBM). The CBM is a market in which private traders could export Canadian barley to the United States outside the CWB. Carter (1993) contended that the CBM would provide significant gains, while Schmitz, Gray, and Ulrich argued that the CBM would greatly reduce CWB premiums on malting barley (additional arguments on the effect of a CBM can be found in Schmitz and Koo). A CBM was put in place by the federal government on 1 August 1993, but was removed on 10 September 1993, because it was deemed to be legally invalid. Carter and Loyns alleged that the CBM was a major improvement over the CWB system. However, Schmitz (1996b) argued that the analysis upon which these conclusions were reached was highly questionable. For example, their analysis was done for the period beginning 1 August 1993, whereas the appropriate starting point was when the CBM was announced—3 June 1993.

Marketing and basis costs

Carter and Loyns contended that the CWB increased farmers' cost (roughly Can$20/tonne for wheat and Can$37/tonne for barley) over what would exist in a multiple-seller environment. They attributed these increased costs to many factors, including excess cleaning, delays in varietal development, and excess country elevator charges. However, their cost estimates seem questionable because they failed to specify either the time period of analysis or the norm used for the basis

of comparison. Also, we argue that the costs outlined by Carter and Loyns, if indeed they do exist, result from the entire regulatory framework and the market structure in Canada, not just from the CWB (Schmitz 1996b). We contend that if the CWB were dismantled, many of the costs would remain. For example, the CWB does not control the registration of varieties (since 1981, ninety-six wheat and barley varieties were registered for use in western Canada), nor does it set country elevator charges. The Prairie Regional Recommending Committee on Grains provides recommendations for the registration of wheat and barley varieties in western Canada. It consists of industry-wide representation from the Canadian Grain Commission (CGC), the CWB, Agriculture and Agri-Food Canada, university researchers, plant breeders, producers, and end-users. Handling charges by elevator companies are established by the companies themselves and not by the CWB.

Kraft, Furtan, and Tyrchniewicz compared the return to risk management for CWB wheat versus nonboard crops, such as canola and flax. They felt the comparison was valid: Canola and flax were predominantly export-oriented crops that used the same handling and transportation facilities as wheat. They found the cost of carrying the risk to be Can$17/tonne for flax, Can$9.38/tonne for canola, and Can$3.85/tonne for wheat. This lower cost of risk management in wheat is attributable to the self-insurance inherent in the CWB pooling system. The CWB has provided significant savings to western Canadian producers.

Farmgate prices

Many farm price comparisons have been made between Canada and the United States. At times, U.S. prices for wheat, durum, and barley were higher and at times they were lower. McCalla and Schmitz, however, claimed it is virtually impossible to determine, by simply examining farmgate prices, whether the Canadian or American grain marketing system is more efficient. The uniqueness in policies, institutions, etc., makes it difficult to attribute any difference, or lack thereof, to the marketing system. This difficulty is well documented in recent U.S./Canadian farm price comparisons for wheat and feed barley (Schmitz 1996b).

Market shares

McCalla and Schmitz contend that market shares can be used as a performance criterion, as long as it is recognized that government policies affect market shares. Transportation, climate, soil, and population also influence a country's export performance. Market shares are shown in table 1. United States lost export market share for wheat and barley relative to its major competitors including Canada,

Table 1. Grain export shares of Canada and United States, 1989/90–1996/97 (percentage)

Year	Wheat		Durum Wheat	Barley	
	Canada	United States	Canada	Canada	United States
1988/89	12.8	41.8	n.a.	15.3	10.0
1989/90	16.0	35.7	43.8	23.9	10.2
1990/91	19.8	32.1	48.3	24.5	8.1
1991/92	20.7	32.9	39.3	17.6	11.0
1992/93	19.2	34.2	39.5	16.2	9.6
1993/94	17.8	36.8	50.7	20.6	8.4
1994/95	19.7	35.4	58.8	20.8	9.4
1995/96	16.8	38.2	63.8	n.a.	n.a.
1996/97*	18.7	29.4	61.0	n.a.	n.a.

Source: Canadian Wheat Board.
Note: n.a. = not available; * = projected.

Table 2. Canadian bulk durum exports, 1986/87–1994/95

Crop Year*	United States	World	Percentage to U.S.
	thousand tonnes		
1986/87	062	1957	03.2
1987/88	202	2753	07.3
1988/89	186	2003	09.3
1989/90	218	2838	07.7
1990/91	370	3224	11.5
1991/92	421	3085	13.6
1992/93	404	2260	17.9
1993/94	554	2877	19.3
1994/95	293	3997	07.3

Source: Canadian Wheat Board.

Australia, and the European Union (EU)—largely because of the expansion of EU exports. United States wheat export share is projected to drop to 29.4 percent in 1996/97.

Canada and Australia (both use a variation of monopoly selling arrangements) combined have more than 50 percent of the export barley market (forecasted to be 50.6 percent in 1996/97). In 1994/95, Canada had 44 percent of the world export malting barley market. For 1996/97 durum exports, Canada is forecasted to have more than 60 percent of the market. The CWB is not solely responsible for these rather impressive market share statistics, but we believe the CWB and the entire Canadian grain marketing system, which promote quality and other factors essential to grain marketing, have boosted shares. Also, transportation costs and other factors have an influence on market share outcomes, but isolating their individual effects is beyond the scope of this article.

The effectiveness of a marketing institution, such as the CWB, depends on how rapidly it can adjust sales to changing market conditions. Indeed, the CWB has been very flexible in its marketing strategies. As theory suggests, when the United States introduced EEP, U.S. exports of durum should have increased along with CWB durum exports to the United States. Indeed, this is what happened (table 2). Canadian

United States Views of the Canadian Wheat Board

Some of the concerns about CWB performance stem from the strong views of U.S. interests, as shown in the following statements.

American Farm Bureau Federation (John Skorburg, Senior Economist, 13 November 1996)
Our government should insist on strict implementation of international trading rules to prevent unfair practices by competing nations and to assure unrestricted access to domestic and world markets. All trade agreements should be continuously evaluated with emphasis on fair trade as well as free trade.

In short, Farm Bureau is supportive of more open trading systems around the world. At this point in time, we do not consider the Canadian Wheat Board to be such an open system. Movement toward more open markets would be appropriate from an economic efficiency standpoint.

U.S. Feed Grains Council (General Report, adopted on 16 July 1996)
The U.S. Feed Grains Council opposes direct government marketing of agricultural products and the negotiation of an international coarse grains agreement. The U.S. Feed Grains Council supports tariffication of all nontariff trade barriers and the timely elimination of such tariffs.

U.S. General Accounting Office (Report to Congressional Requesters, 24 June 1996)
The CWB's relationship with the Canadian government, as well as its relationship with Canadian wheat and barley producers, provides the CWB with opportunities to potentially distort trade. Since the establishment of CWB in 1935, the Canadian government has provided more than $1.2 billion (U.S.) to the CWB to help it cover periodic wheat and barley pooling deficits. Canadian wheat producers also benefited from a government railway subsidy; this subsidy was eliminated in August 1995. CWB also receives indirect subsidies as a result of its STE status, such as a lower interest rate on commercial loans. Through its monopoly authority over Canadian wheat and barley sold for domestic human consumption or export, CWB has a limited ability to cross-subsidize its wheat exports and an even greater potential for cross-subsidizing Canadian barley exports between its domestic and export markets. Finally, the CWB's monopoly authority may provide it with greater pricing flexibility in its relationship with foreign buyers than is found among private sector traders.

U.S. Department of Agriculture (USDA) officials acknowledged that they did not have any evidence that CWB was violating existing trade agreements. However, trade differences between the United States and Canada have led to curbs on Canadian wheat imports into the United States and the establishment of a joint commission to look at all aspects of the two countries' respective marketing and support systems for grain. Canada's elimination of transportation subsidies to Canadian producers, its reviews of CWB operations and Canadian agriculture, and its ongoing discussions with the United States may reduce the CWB's potential to distort trade in the future.

National Barley Growers Association (Herb Karst, Vice-President, 15 November 1996)
What is important to remember is the CWB was formed to manage trade in such a manner as to provide social equity to Canadian producers by pooling prices, grade, freight, and time factors. Its monopoly status may be the only way to do that since the averaging of those factors has implied winners and losers. For the U.S. farmer faced with a continental market, he or she, lacking reciprocal access to provide price arbitrage, is faced either with competing against the winners, who may have a comparative advantage into U.S. markets, or the losers whose domestic Canadian prices do not show the full value of their commodity, and thus is artificially induced into selling into the U.S. marketplace. Either way, especially for a high-bulk, relatively low-value grain, such as barley, the market cannot adjust well to inefficiencies in transportation. It seems as if only two conditions exist which can provide grain trade equity in North America. The first is a totally homogeneous market place which unites all grade and market policies, and the second is the continuation of the marketing monopoly in Canada, but with a very real restraint on cross-border trade in recognition of the trade distortions present under a State Trading Enterprise, or any form of marketing order.

Montana Farmer's Union (George Paul, Executive Director, 13 June 1996)
This group enthusiastically supports the creation of a farmer-controlled International/North American Marketing Board and, states, "Such a board would protect the average farmer against the near-monopoly lock on the buying, grading, and selling of grain now enjoyed by the giant multinational grain corporations." According to Paul, the CWB is already set up to do this.

U.S. Wheat Associates (Winston Wilson, President, November 18, 1996)
The CWB monopoly has long outlived its usefulness. What was perhaps a practical idea during the World War II era is no longer serving Canadian wheat producers in terms of efficiency or net returns.

Canadian producers' marketing options are nonexistent

durum exports to the United States in 1986/87 were only 3 percent of Canadian total durum exports. This increased to 19 percent in 1993/94—a year of high EEP subsidies. At one time, over 50 percent of CWB wheat exports went to China and the Former Soviet Union, where the latter represented the larger share. Today, due to lack of purchasing power, the Former Soviet Union has been a very small market for Canadian wheat. However, U.S. grain shipments to that region have not declined as rapidly as in the Canadian case.

Support and opposition

Our evidence suggests the CWB earned prairie farmers a price premium over what a multiple-seller marketing system would have achieved. Also, the CWB has lowered the basis risk cost of grain marketing. The CWB has been able to maintain its

except occasionally when the CWB permits sales into the United States (after paying a fee to the board). As a consequence, they are recipients of the residual that remains after relatively high pool expenses and pricing practices which are usually geared to maximizing tonnage shipped rather than to net returns to producers.

A free market option would well serve the Canadian farmer as well as world grain trade by at least partially eliminating one source of artificially low administered prices. Such an option would be the ultimate referendum on the future of the CWB.

U.S. Department of Agriculture (Richard Rominger, Deputy Secretary of Agriculture, from the report to the House Committee on Agriculture, September 12, 1996)

...Both the Canadian and Australian wheat boards practice price discrimination—different prices to different importers. There are similar concerns about the ability of the New Zealand Dairy Board to engage in price discrimination and potential cross-subsidization between foreign markets (using higher prices in one import market to subsidize sales in another market at prices below acquisition costs), as well as the special advantages it accrues through its subsidiaries in more than sixty countries, including the United States.

Many STEs, including the Canadian Wheat Board and the New Zealand Dairy Board, have other important advantages as well. An STE that controls domestic supplies or one that controls exports representing a major share of domestic production has a sure supply, as long as the weather cooperates. This gives the STE much greater freedom than a private firm in making export sales commitments, resulting in a significant advantage in reaching long-term trade agreements with importing governments. The Canadian Wheat Board also benefits from government support ranging from direct subsidies to indirect subsidies, such as subsidized interest rates on government loans. The lack of pricing transparency has been a particularly contentious issue in the case of the Canadian Wheat Board, but it is an important issue with most STEs. It is a key issue....

...With regard to the Canadian Wheat Board, one potentially encouraging development is the recent report by a grain industry panel there (the Western Grain Marketing Panel) that reviewed Canada's grain marketing system and presented its recommendations to the Canadian government. Among other things, the panel recommended that export sales of feed barley be removed from the board's exclusive control. Canada's minister for agriculture announced that he would address the recommendations by the late fall or early winter. We await any Canadian decisions with great interest to see if the government intends to adopt these recommendations.

National Association of Wheat Growers (Chuck Merja, President, 13 December 1996)

In theory, as a monopoly seller of Canada's wheat, the CWB should be able to extract a premium for consistent supply, protein, cleaning, and homogeneity. In practice it fails to extract full value for the fact that Canadian wheat goes through a post-harvest mechanical cleaning.

In practice, it often delivers higher protein than is contracted, thereby not extracting full value for this quality of wheat.

In practice, the CWB doesn't appear to have good crop quality reconnaissance, so as to take advantage of rallies such as the one experienced in the spring/summer of 1996. When forced to compete for markets and grain delivery from its own farmers as it was in the brief period that we had a continental barley market, the CWB showed its true nature as a price discounter by trying to cover all the major U.S. barley markets, at steeply discounted prices, so as to foreclose sales by its own farmers and the U.S. grain companies that the Canadian farmers would have used to access those same end users.

In practice, it rewards farmers who produce poor-quality wheat while not rewarding those producers of high-quality wheat the way the marketplace would, thereby providing incentive for the production of mediocre quality.

In practice, the CWB's primary marketing ploy is to offer grain $2–$5 tonne less than competitors' cheapest bids. This action from a monopoly seller of "high quality" is not bullish to a market but bearish, thus causing buyers to "wait and see" rather than "buy now." This action is not only an insult to the Canadian farmer, it has a dampening effect on world markets and thus farmers world wide.

In fact, about the only item that the CWB appears to extract value for above what its competitors in the world are able to accomplish is water. Canadian grain is historically higher in moisture than any of its competitors, yet buyers haven't figured out that they are buying more water from Canada than from anywhere else in the world.

Lastly, it persecutes its own farmers who try to prove that they, as individuals, can extract more from the marketplace than it can.

All these things combined make the CWB a formidable competitor in world markets, but for all the wrong reasons. If it were truly an astute marketer of grains, it would be able to extract significant premiums for cleanliness, protein, consistency, and uniformity, but, choosing to be a discount seller instead, it has a negative effect on world grain prices until it gets "out of position," at which time the marketplace extracts its toll.

market share in the hard red wheat market while expanding its market shares in both durum wheat and malting barley. Notwithstanding this performance, there is a segment of prairie farmers that wishes to eliminate the CWB monopoly on exports. Perhaps this is due to allegations of excessive CWB marketing costs. We contend, however, that the added costs attributed to the CWB are grossly overstated.

The CWB also faces some opposition in the United States from groups that feel the CWB does not adhere to fair trade practices (the upcoming WTO debate on state trading could affect the operations of the CWB). They feel that the CWB undercuts prices in some foreign markets because of its monopoly powers within Canada. It is not clear, when reviewing comments made by U.S. interests (see the box inset), whether the CWB is

doing an exceptional job for Canadian farmers or an inferior job. During the next few years, resolution of the many controversial issues will have a major impact on farmers in western Canada and on competitors like the United States.

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The authors extend their appreciation to Kim Box and H. Carole Schmitz for their extensive editorial assistance.

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