

United States International Trade Commission

Wheat Trading Practices:

Competitive Conditions Between U.S. and
Canadian Wheat

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USITC Publication 3465
December 2001



U.S. International Trade Commission

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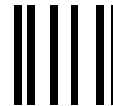
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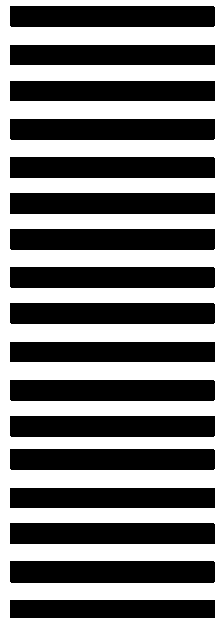
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Wheat Trading Practices: Competitive
Conditions Between U.S. and
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This report is a public version of the report submitted to the United States Trade Representative on November 1, 2001. All confidential business information has been removed and replaced with asterisks (*)**

U.S. International Trade Commission

Washington, DC 20436
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Wheat Trading Practices: Competitive Conditions Between U.S. and Canadian Wheat

Report on Investigation No. 332-429 Under Section 332(g)
of the Tariff Act of 1930 as amended



Publication 3465

December 2001

PREFACE

On April 12, 2001, the United States International Trade Commission (Commission) instituted investigation No. 332-429, Wheat Trading Practices: Competitive Conditions between U.S. and Canadian Wheat. The investigation, conducted under section 332(g) of the Tariff Act of 1930, was in response to a request from the United States Trade Representative (USTR) received April 2, 2001 (see appendix A).

The purpose of this investigation is to provide a report analyzing conditions of competition between U.S. and Canadian wheat in the United States, and in certain third-country markets during the 5 most recent years. Two types of wheat—Hard Red Spring and Durum—were included. As requested by USTR, the report specifically provides:

1. a summary of a survey of U.S. Hard Red Spring wheat and Durum wheat purchasers, including wheat millers, as to the conditions of competition between U.S. and Canadian wheat during the 5 most recent years, including such data as quantity and prices, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition;
2. a summary of a survey of U.S. Hard Red Spring and Durum wheat exporters as to conditions of competition for the most recent 5 years in selected key foreign markets in Latin America, the Philippines, and other significant markets, between U.S. and Canadian wheat, providing such data as sale quantity and prices, lost sales of U.S. wheat to Canadian wheat, technical considerations in the purchase of U.S. versus Canadian wheat, and other relevant factors of competition; and
3. a summary of the current conditions of wheat trade between the United States and Canada, including relevant information on prices, exchange rates, transportation, marketing practices, U.S. and Canadian farm policies, and other significant economic factors that might be relevant.

The Commission held a public hearing for the investigation on June 6, 2001, and written submissions for this investigation were solicited by publishing a notice in the Federal Register on April 18, 2001 (66 F.R. 19982) (see appendix B). A list of hearing participants is shown in appendix C.

Commission questionnaires were sent to 84 potential Durum and/or Hard Red Spring wheat exporters, importers, wheat mills, merchandisers, and/or shippers. Thirty-eight respondents indicated they did not export, merchandise, or ship these wheats during the period under consideration (June 1, 1996 through May 31, 2001) or were duplicate subsidiaries of other firms. Twenty exporter firms provided usable data to the Commission. It is estimated that in 2000 these 20 firms accounted for all U.S. exports of the two types of wheat under investigation. Twenty-six firms indicated they did purchase, mill, import, or process the subject wheats and provided usable data. It is estimated that these 26 firms accounted for about 80 percent of domestic milling of Durum wheat, and virtually all domestic milling of Hard Red Spring wheat; these companies accounted for all U.S. imports of the subject wheats in 2000.

PREFACE—*Continued*

USTR requested that the Commission classify this report as Confidential National Security Information. Confidential Business Information (CBI) obtained during the investigation that might reveal operations of individual firms is not disclosed in any subsequent public report released on this investigation.

The information and analysis in this report are for the purpose of this report only. Nothing in this report should be construed as indicating how the Commission would find in an investigation conducted under other statutory authority.

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ABBREVIATIONS AND ACRONYMS

AFIAP	The Alberta Provincial Farm Income Assistance Program, a Canadian farm assistance program within Alberta
APP	The Advance Payments Program, a Canadian federal farm assistance program
ARPA	The Agricultural Risk Protection Act of 2000 that provides U.S. crop insurance to U.S. wheat farmers
Bonification	Contractual terms of quality, delivery or other factors and a scale of penalties or price discounts in the event of contract violation
CFTA	U.S.-Canadian Free Trade Agreement
CMAP	Canada-Manitoba Adjustment Program, farm assistance program for grain and oilseed farmers within Manitoba
CSAP	Canada-Saskatchewan Adjustment Program, farm assistance program for grain, oilseed, and specialty farmers in Saskatchewan
CRC	Crop revenue coverage—a type of crop insurance offered under ARPA
CWAD	Western Amber Durum wheat of (Canadian origin)
CWB	Canadian Wheat Board
CWRS	Canadian Western Red Spring wheat
Dark Northern Spring	A commercial grade of U.S. Hard Red Spring wheat
Dockage	The percentage of foreign material of the total grain weight; maximum percentages are typically for each grade or shipment
Durum wheat	A type of wheat, grown mainly in the spring, and generally milled into a coarser meal (called semolina) rather than a flour. Durum's principal use in the production of semolina, a meal used to make macaroni, spaghetti, vermicelli and similar pasta products
EUC	End-use certificates for U.S. wheat entering Canada for consumption or for Canadian wheat entering the United States for consumption; established under the U.S.-Canadian Free Trade Agreement in 1991
Gateway	A principal port of entry into the United States
HAD	Hard Amber Durum wheat, generally U.S. origin
HRS	Hard Red Spring wheat, a class of hard wheat, planted typically in the spring months
Hard wheat	A type of wheat that is high in protein and gluten content, produced in areas with hot summers and an moderate rainfall, the principal classes of hard wheat being Hard Red Winter, Hard Red Spring and Hard White
Hard Red Spring wheat	HRS (see above)
Hard Red Winter wheat (HRW)	A class of hard wheat, planted typically in the United States in fall months, and mostly dormant during the winter months

ABBREVIATIONS AND ACRONYMS—*Continued*

In-Transit Movement	A joint U.S.-Canadian program instituted in January 1999 as part of the Record of Understanding to allow physical movement of U.S. grain to be shipped through Canada to final destination in the United States on Canadian railroads of Grain by Rail
KVD	Kernel visual distinguish ability, a method unique to Canada used to distinguish among wheat varieties and types
LDP	Loan deficiency payment—a payment to a U.S. wheat grower based on the difference between USDA’s fixed loan rate and the prevailing market price of the grain eligible to be placed under USDA loan program
Marketing year	The marketing year used in this report begins June 1 and ends May 31; for example, 1996/97 begins June 1, 1996 and ends May 31, 1997
Minneapolis Futures	Futures contracts traded on the Minneapolis Grain Exchange
NISA	The National Income Stabilization Account, a Canadian federal farm assistance program
Protein level	The percentage of the total weight that is composed of protein found in the gluten portion of the wheat
PFC	Production flexibility contract—payments to eligible wheat producers under USDA support program
Semolina	A coarse meal (as distinguished from finer wheat flour) produced mostly from Durum wheat and used in the production of spaghetti, macaroni, and similar pasta products
USDA	The U.S. Department of Agriculture
WRS	Western Red Spring wheat (identical to CWRS, see above)
WGTA	The Canadian Western Grain Transportation Act that provided rail subsidies for wheat and other Canadian grains and oilseed products until 1995/96 when it ended
Wheat Access Facilitation Program	A joint U.S.-Canadian program instituted in January 1999 as part of a Record of Understanding to enhance opportunities for U.S. farmers and elevators to sell directly to primary elevators within Canada

EXECUTIVE SUMMARY

Introduction

The Commission instituted this investigation at the request of the United States Trade Representative (USTR) on April 12, 2001. USTR indicated in its request letter that it had initiated its own investigation under section 301 of the Trade Act of 1974 concerning the acts, policies, and practices of the Canadian Wheat Board (CWB) and the Government of Canada. The USTR requested that the U.S. International Trade Commission (Commission) provide to USTR the following information to the extent possible:

1. a summary of a survey of U.S. Hard Red Spring wheat and Durum wheat purchasers, including wheat millers, as to the conditions of competition between U.S. and Canadian wheat during the 5 most recent years, including such data as quantity and prices, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition;
2. a summary of a survey of U.S. Hard Red Spring wheat and Durum wheat exporters as to conditions of competition in key foreign markets in Latin America, the Philippines and other significant markets, between U.S. and Canadian wheat during the 5 most recent years, providing such data as quantity and prices, lost sales of U.S. wheat versus Canadian wheat, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition; and
3. a summary of the current conditions of wheat trade between the United States and Canada, including relevant information on prices, exchange rates, transportation, marketing practices, U.S. and Canadian farm policies, and other significant economic factors that might be relevant.

The North Dakota Wheat Commission filed a petition in October 2000 alleging that the Canadian Wheat Board, a state trading enterprise with a near monopoly on Canadian wheat sales, engaged in unfair trade practices in its export sales of wheat to the U.S. market and to certain third-country markets of interest to U.S. exporters.¹

The Commission held a public hearing on June 6, 2001, gathered evidence, and issued separate exporters' and purchasers' questionnaires to U.S. companies during May to June

¹ In December 2000, an estimate by the petitioner further quantified the unfair trading practices as price undercutting of approximately 8 percent of CWB wheat under U.S. wheat, over-delivered protein content in the Canadian wheat, and other transportation (rail) benefits. The petitioner recommended a tariff-rate quota on Canadian imports into the United States as a remedy for these practices.

2001.² In addition, Commission staff conducted field visits in Minnesota, North Dakota, and the State of Washington to gather information from U.S. wheat millers, grain elevator operators, State officials, domestic farm organizations, U.S. wheat exporters, and U.S. importers, as well as from representatives of the Minneapolis Grain Exchange, the principal trading point for U.S. Hard Red Spring (HRS), Canadian Western Red Spring (CWRS), and Durum wheat. Staff also traveled to Canada to meet with CWB officials to discuss operations relevant to this study.

This report presents information in the following areas: the structure of the U.S. and Canadian industries and markets for Durum and HRS/CWRS wheat; pricing practices in the U.S. market and selected foreign markets; the influence of rail transportation on U.S. and Canadian industry competitiveness; product quality issues; and Canadian trade programs.

Structural Differences Between Durum Wheat Market

In the United States, the Durum market is more narrow and more heavily dominated by Canada than is the HRS wheat market. Durum has no close substitutes and has only one principal end use: pasta production. HRS wheat has several substitutes (of varying quality) and is used in the manufacture of an array of breads and other bakery goods. With nearly 60 percent of world trade in Durum in crop year 2000/01, Canada is almost three times larger than its closest competitor, the United States.

One advantage the CWB has in the Durum market is the ability to forward contract for future delivery, as substantiated by the responses to the Commission's purchasers'

² The Commission sent purchasers' questionnaires to firms that milled, imported, purchased, or processed Hard Red Spring (HRS) or the directly competitive Canadian wheat, Canadian Western Red Spring (CWRS), Durum, or both classes of wheat, from the United States, from Canada, or from both countries, during any part of June 1, 1996, through May 20, 2001. Respondents ranged in size from the major multinational grain companies to small firms that purchase limited quantities and types of wheat. Most firms were either grain companies or millers, or both. Four other firms were manufacturers of pasta or other products. Most purchased both U.S. and Canadian wheat. Respondents accounted for nearly all U.S. imports of Durum and CWRS wheat in the marketing year 2000/01. The Commission also sent questionnaires to U.S. firms exporting Durum, HRS, and/or CWRS wheat to eight selected markets: Algeria, Brazil, Colombia, Guatemala, Peru, Philippines, South Africa, and Venezuela. The responses were obtained from U.S. firms only, and therefore do not directly cover the pricing and/or export behavior of the CWB in world wheat markets. The responses do provide U.S. exporter views on CWB behavior and on the competitiveness of U.S. and Canadian wheat in the selected markets. Although these markets account for an important share of the world market for these products, the data and other analysis should not be construed to represent the CWB's activities in other third-country markets. The Commission received responses from 20 firms covering virtually all exports of U.S. HRS and Hard Amber Durum (HAD) wheat, *** percent of Canadian Durum exports, and 61 percent of CWRS wheat exports to the selected markets. However, responses for specific shipments were limited (or subject to different terms of sale) and therefore direct price comparisons were not possible for several markets.

questionnaire.³ Because there are few futures contracts traded for Durum wheat on the Minneapolis Grain Exchange (MGE),⁴ and even the volume of cash Durum trade is spotty and thin, the process of price discovery in U.S. and world Durum markets is much more opaque than that for HRS or Hard Red Winter wheat. In this market environment, the CWB can forward contract Durum to U.S. and/or third-country purchasers in a way that no U.S. Durum supplier can do given the high level of risk and price volatility facing small suppliers in a thinly traded market.

The demise of the Durum futures contract on the MGE is partly related to the presence of the CWB. The market is dominated by a few large suppliers and a few large domestic purchasers, but relatively low volumes. The other factors that undermined the futures contract included the difficulty in specifying contract delivery terms and annual protein and quality variation.⁵

In contrast to Durum, Canada supplied only 17 percent of global wheat exports in the 2000/01 crop year and accounted for only 5 percent of world production. The United States supplied 28 percent of world wheat exports in that year, and produced 10 percent of world output.

Structural Differences Between U.S. and Canadian Industries

The wheat producer and user sectors in the United States and Canada are generally similar in structure. The main difference between the two nations' industries lies in the middleman sector, between the producers (farmers) and users (millers or foreign buyers). In the United States, the middleman sector consists of numerous producer cooperatives and small and large grain trading companies. In Canada, the entire middleman sector consists of the CWB, which is empowered with both monopsony and monopoly power in the marketing of western Canadian wheat.

Market power is only one of the CWB's notable structural characteristics. As shown in Chapter 3, the Board is in all significant respects an arm of the Government of Canada, with Government approval and backing of its borrowing and other financing, which reduces its costs and insulates it from the commercial risks faced by large and small U.S. grain traders.

Further, the CWB's producer pool system (by which Canadian wheat producers are remunerated) gives the CWB flexibility in marketing beyond the ability to forward contract. Producers receive a Government-approved and -guaranteed initial payment early in the crop year, with subsequent interim and final payments as the crop is harvested and sold on world

³ Eight firms responded to the Commission's purchasers' questionnaire that the CWB Durum future delivery was of value to them; six firms (three of which did not engage in importing) said the future delivery was not of value. See Chapter 4, "Contract Structure."

⁴ The Durum wheat futures contract volume on the MGE fell from 16,000 contracts in 1998 (the year it was first introduced) to 559 contracts in 2000, and to 67 contracts during Jan.-Apr. 2001, according to data of the MGE. See also Monte Vendeveer and C. Edwin Young, "The Effects of the Federal Crop Insurance Program on Wheat Acres," USDA, ERS, *Wheat Situation and Outlook Yearbook*, March 2001.

⁵ Ibid. Also Commission interview with * * *, June 20, 2001.

markets. Not only are such subsequent payments payable only to the extent the CWB makes money on its sales, but they are subject to a variety of CWB-determined deductions for freight and other expenses. Some of these deducted expenses are “phantom” expenses (expenses not actually incurred by the CWB; see Chapter 3 for discussion). The resulting surplus revenue gives the CWB a price cushion in its negotiations with domestic and foreign buyers.

The lack of price transparency within Canada gives the CWB an inherent marketing advantage over U.S. competitors. This is particularly true in Durum markets, but also in HRS markets. The CWB’s basing-point price system (using Vancouver, British Columbia, and Thunder Bay, Ontario, as base pricing points) for producer remuneration enables the CWB to adjust output prices for both domestic sales and direct Prairie sales to the United States (i.e., all shipments that do not go through either basing point) to meet its local competition. Pricing practices are the subject of the following two sections.

Pricing in the U.S. Market

The U.S. price as a basis for the Canadian price

For U.S. purchases of HRS and Durum wheat, most questionnaire respondents indicated that the price negotiating (bid-offer) process was much the same in the United States as in Canada. One firm reported that there is greater liquidity in the U.S. market owing to the presence of more sellers. Other respondents’ comments stressed the importance of price in the purchasing decision and that negotiated prices for CWRS wheat are based on U.S. prices, which in turn are negotiated using futures prices or cash market prices.

In questionnaire responses, the Minneapolis Spring wheat contract was by far the most commonly cited contract on which the CWB reportedly relies in price negotiations. Even in the pricing of Durum wheat, one firm reported that the CWB’s prices are expressed in relationship to Minneapolis Spring wheat futures. Normally, it was reported, Canadian Durum wheat commands a premium over the Minneapolis price of \$0.05 to \$0.10 per bushel (\$1.84 to \$3.67 per metric ton). Most firms were unable to specify whether the CWB’s pricing practices in the U.S. market differed between exchanges.

Canada’s large share of the Durum market suggests to some U.S. industry members the possibility that the CWB’s actions can affect Durum prices on U.S. exchanges.⁶ In this view the CWB is not entirely a price-taker in the U.S. Durum market but has some effect on prices by its decisions on how much to market.

⁶ Commission interviews with * * *, July 2001.

Terms of sale between U.S. and Canadian wheat in the U.S. market

Discounts and premiums

There are few differences in the terms of sale of U.S. versus Canadian wheat, according to questionnaire respondents. A few purchasers of Durum wheat reported that contracts for U.S. wheat specify quality discounts for grade factors that do not meet contract specifications, while Canadian contracts generally do not. Generally, it was reported, Canadian contracts specify only the protein level and grade, the latter to be determined on the basis of Canadian grade standards. Grade No. 1 (# 1) CWRS wheat generally commands a premium of \$0.03 per bushel over # 2 CWRS wheat, which reportedly is the same price differential applied to the equivalent U.S. wheat.

Delivery terms

Firms that purchased wheat directly from the CWB for delivery reported more forward than spot contracting, but none reported multi-year contracts. Slightly longer delivery terms were noted for a larger portion of sales of Canadian wheat as compared to U.S. wheat.

Transportation costs are generally either paid by the CWB or split between the CWB and the customer. However, respondents were generally unable to report average transportation costs between the principal Canadian origin points and principal U.S. destinations, because the price for Canadian wheat is often referenced to a “gateway” or entry point in the United States, with Minneapolis being the most frequently cited.

Price comparison of U.S. and Canadian wheat

Eighteen firms provided 785 individual price contracts for the 60 months during the marketing years 1995/96 to 2000/01. Direct comparison between contracted and delivered prices for U.S. and Canadian wheats was not possible owing to differences in reported contracting terms as noted in Chapter 4. Given these data issues, the Commission conducted two analyses of the price data: an analysis of the contracted (largely “gateway”) prices for comparable wheats (U.S. and Canadian # 1 Durum, # 1 HRS and # 1 CWRS, and U.S. # 2 HRS and # 2 CWRS) during 1996/97 to 2000/01, and an analysis of delivered prices in the Minneapolis area.

Regarding contracted prices (largely through the “gateway”) in the U.S. market during 1996/97 to 2000/01, reported Canadian Durum prices were above U.S. prices for all comparable months except one. For # 1 CWRS/HRS wheat, price relationships were mixed, with some Canadian prices equal to or above U.S. prices, and others below. Prices for # 2 CWRS wheat were generally higher than those for # 2 HRS wheat, with most contracts reported after January 2000. These observed time series relationships are consistent with previous responses from firms regarding the CWB’s use of grain exchanges for pricing wheat in the U.S. market.

Exports to Third-Country Markets

Level of export sales to subject markets

Data supplied by reporting firms on their exports of U.S. and Canadian Durum, HRS, and CWRS wheat to the eight markets covered in the survey show declining U.S. exports of Durum and HRS wheat and increasing exports of Canadian Durum and CWRS wheat in 2000/01. The data also show exports of Canadian Durum and CWRS wheat overtaking exports of U.S. Durum and HRS wheat in 2000/01.

Export marketing practices

Questionnaire respondents indicated that there are no material differences in transportation costs, seasonality of delivery, or use of futures or spot markets that affect the relative competitiveness of either nation's wheat in the eight subject foreign markets. Respondents also reported no quality discounts and *** reported no other special discounts from the CWB. However, a number of respondents reported that the CWB more frequently over-delivers on contract specifications than it under-delivers. This practice is also reported in the U.S. industry.

The analysis of protein delivery in exporter contracts for U.S. # 2 HRS and # 1 and # 2 grade CWRS wheats⁷ shows that over-delivery of protein occurs in exports of both U.S. and Canadian wheat. Most over-delivery was found to be small, equal to or less than 0.2 percentage points over contract specifications, and this level of over-delivery occurred in both U.S. and Canadian contracts. Since most contracts have penalties for under-delivery of protein, it is likely these differences are due to actions by exporters to ensure that the minimum delivery requirements are met. However, a higher frequency of protein over-delivery in the higher ranges was found for the CWRS wheats. For example, *** percent of the comparable Canadian export contracts had protein over-delivery of 0.8 percentage points or higher, compared to *** percent of U.S. contracts.

The Commission's questionnaire responses from exporters also showed that delivered prices of both U.S. and Canadian wheat are often not adjusted upward in the event of protein over-delivery, although, as noted above, most over-delivery was found to be small in the reported data. However, among the wheats/grades analyzed, price increases were found to be more frequent for the higher grades of wheat (# 1 CWRS and U.S. # 1 HRS), as compared to the # 2 grades of these wheats. The reported data were insufficient to analyze price and protein delivery adjustments for U.S. and Canadian Durum.

⁷ Data were not sufficiently available to analyze protein over-delivery in U.S. and Canadian Durum export contracts.

Lost sales for U.S. wheat exporters

Three out of 20 responding firms indicated that price competition with Canadian wheat is an “important” issue and that they had to cut prices to avoid losing export sales of U.S. wheat. Six responding firms reported that they had lost U.S. sales to Canadian competition. In ***, one firm reported it had difficulty competing with direct sales by the CWB. Another reported more specifically that ***. One firm reported that *** because of the CWB’s undercutting of publicly reported U.S. offer prices.

Export price comparisons

Comparable export price data were evaluated for the Venezuelan market. These price comparisons, for export shipments to Venezuela for # 2 CWRS and # 2 U.S. HRS wheat, show that export prices for the two wheats generally moved in the same pattern during 1996/97 to 2000/01. ***. The protein contract on export shipments to Venezuela varied, with the average for U.S. shipments at *** percent and the average for Canadian shipments at *** percent.

Rail Transportation

Rail transportation is one of the most important factors in wheat industry competitiveness.⁸ Railroads have typically been regulated in both their rate-setting and their operation of trunk and branch lines, both of which are important to wheat industry competitiveness.

In recent years, the U.S. rail industry, unlike the Canadian rail industry, has been fully deregulated: U.S. rail rates for all commodities, including wheat, are now set by railroads in negotiations with individual shippers. Only if there are disputes over rates, or proposed mergers that might restrict competition and raise rates, does the U.S. Government (the Surface Transportation Board) become involved.

In August 2000, the Canadian Government implemented new regulations for the movement of CWB wheat by the two main railroads, Canadian National and Canadian Pacific. These new regulations place “caps” on the overall revenues received by these railroads from the transport of CWB wheat and other grains (see Chapter 3 for details). Shipments to the eastern and western ports for overseas export are regulated--rates are below comparable commercial rates--as are domestic shipments to Armstrong or Thunder Bay, Ontario.

⁸ In addition to the economists’ studies submitted to the Commission by counsel for the North Dakota Wheat Commission and for the Canadian Wheat Board, see The Hon. Willard Z. Estey, “Grain Handling and Transportation Review: Final Report,” submitted to the Minister of Transport (Canada), Dec. 21, 1998; USDA, ERS, “Effects of Railroad Deregulation on Grain Transportation,” Report ERSTB1759, 1989; William Coyle and Nicole Ballenger, eds., “Technological Changes in the Transportation Sector--Effects on U.S. Food and Agricultural Trade,” ERS Miscellaneous Publication No. 1566, 2000.

Significantly excluded from the revenue cap is western wheat shipped to the U.S. market.⁹ U.S.-bound shipments from Canadian west coast ports are excluded, and rates for such shipments are free to be negotiated between railway and shipper (the CWB is the shipper of record for all wheat to the United States).

According to a report commissioned by the Canadian Department of Transportation, the CWB provides railcars to railroads “without charge.” The North Dakota Wheat Commission and North Dakota State University have suggested that this is partly to compensate railroads for the lower rail rates for CWB grain.

The CWB asserts that higher U.S. versus Canadian rail rates are due to “greater railway monopoly concentration” in the United States.¹⁰ However, with an equal number of Class I railroads servicing shippers of the subject wheat, and a roughly equal layout of short lines, there is no clear evidence that railroad concentration is higher in the United States. More broadly defined (i.e., including alternative transport modes such as trucking or riverine transport) transport concentration may be lower in the United States, although it is hard to measure precisely such concentration. The reason for lower Canadian rates appears instead to be greater railroad regulation in Canada, at least with respect to the transport of western grain.¹¹

An additional rail rate issue, discussed in Chapter 3, is the freight charge the CWB deducts from its reimbursements to individual Canadian producers, and how that charge compares with the rate the CWB actually pays to Canadian railroads. The Commission did not obtain actual rail costs of shipping wheat from Canada to U.S. destinations from its questionnaire.

Product Quality Issues in the U.S. Market

Protein “over-delivery”

Most respondents to the Commission’s purchasers’ questionnaire reported that to their knowledge, the CWB’s deliveries of wheat exceeding contracted protein specifications are considered minor and not generally anticipated. In fact, respondents reported that deliveries from both U.S. and Canadian suppliers tended to exceed the minimum contracted protein level.

⁹ Canadian Transport Agency, “Western Grain: Railway Revenue Cap,” retrieved Aug. 2, 2000, from <http://www.cta-otc.gc.ca>.

¹⁰ CWB, prehearing brief, p. 8.

¹¹ See Chapter 2. Indeed, the CWB concedes as much: “The Canadian railway transportation system is more highly regulated than in the United States and results in lower freight rates for all goods carried, not just wheat and barley.” CWB, prehearing brief, p. 8. However, the CWB’s conclusion likely is correct only with respect to grain, not “all goods.” See Transport Canada, *Vision and Balance*, Final Report of the Canada Transportation Act Review Panel, June 28, 2001, p. 29. (“The National Transportation Act, 1987, freed railways and their customers to negotiate charges and conditions for moving products, except for grain.”) Available on the Internet at Transport Canada’s website: <http://www.reviewcta-examenlrc.gc.ca/english/pages-/finalreport.htm>.

To assess the extent of over-delivery of protein content in domestic wheat purchases, the Commission analyzed differences in contracted and delivered protein in 615 Durum, HRS, and CWRS wheat contracts reporting both sets of data. For all but # 1 CWRS wheat, most contracted purchases were shown to have a tendency toward over-delivery of protein content. However, all contracts for all comparable wheat grades and classes tended to meet or exceed the contracted protein specification for final delivery of the product. Out of 510 reported U.S. shipments of HRS and U.S. Durum wheat, 65 percent reported protein over-delivery, while 54 percent of 105 reported CWRS and Canadian Durum contracts reported over-delivery of protein. Most of these differences were found to be within a 1.0 percentage points range above the contracted protein specification, and nearly all were within 1.5 percentage points, for both U.S. and Canadian wheat.

Generally, firms reported that, to their knowledge, no adjustments to prices were made when the delivered protein content of wheat, from either U.S. or Canadian sources, exceeded contract specifications. The Commission's analysis of actual price and purchasers shipment data revealed that when the delivered protein content exceeded the contract specification, the delivered price also exceeded the contract price in about one-fifth of the reported purchasers contracts.

For both U.S. and Canadian wheat, firms reported that prices are generally reduced when the delivered protein content falls below contract specifications. Some firms indicated that price adjustments for variations in protein levels are handled on a case-by-case basis, and that a load could be rejected for not meeting the protein specification.

Dockage

"Dockage" is the foreign or undesirable matter in wheat, such as straw, weeds, pests, and broken hulls. Dockage levels are commonly included in contract specifications. Many firms reported that the CWB delivers below-dockage wheat (i.e., "cleaner" than called for in the contract); in fact, all reporting firms indicated that 95 to 100 percent of their CWB shipments were delivered below the contracted dockage level by more than a 0.2 percentage point.

The Effects of Canadian Trade Programs and CWB Pricing on U.S. Exports to Canada

The U.S. industry has indicated that Canadian regulations and laws, as well as operations by the CWB, have virtually precluded marketing of U.S. milling grade wheat or milled flour to Canadian mills and buyers. As shown in Chapter 2, U.S. exports of wheat into Canada are negligible, amounting to less than \$50,000 in 2000/01. Canadian trade policies and programs, particularly the varietal registration program and end use certificates for U.S. wheat, have been reported by U.S. exporters as adversely affecting the level of U.S. wheat exports to Canada. Information supplied by both U.S. industry interests and the Canadian Government indicates that the Wheat Access Facilitation Program is no longer in use. The program was implemented by the United States and Canada as part of the Record of Understanding in 1998, to facilitate exports of U.S. wheat directly to Canadian elevators.

Additionally, the CWB sells wheat to domestic Canadian millers using a North American pricing policy that ensures that its selling prices to Canadian millers are competitive with U.S. prices. According to U.S. interests, the CWB will lower its price to Canadian wheat mills in order to eliminate any possibility of U.S. wheat or flour coming into Canada.¹²

¹² According to these interests, the disparity in westbound U.S. and Canadian rail rates resulted in the CWB paying the Canadian wheat mills a bonus of ***. Commission staff conversation with * * *.

CHAPTER 1

INTRODUCTION

Background

The United States Trade Representative (USTR) requested on April 2, 2001, that the United States International Trade Commission (USITC or Commission) conduct an investigation of the conditions of competition between the U.S. and Canadian wheat industries in the United States and third country markets (see request letter in appendix A). The Commission instituted investigation No. 332-429, *Wheat Trading Practices: Competitive Conditions Between U.S. and Canadian Wheat*, under section 332(g) of the Tariff Act of 1930 on April 12, 2001. The USTR requested that the USITC submit its confidential report to the USTR by September 24, 2001, later extended to November 1, 2001.¹

In the letter, the USTR indicated that in October 2000, it initiated an investigation under section 301 of the Trade Act of 1974 concerning the acts, policies, and practices of the Canadian Wheat Board (CWB) and the Government of Canada. This USTR investigation followed the receipt in September 2000 of a section 301 petition from the North Dakota Wheat Commission, representing wheat farmers. The 301 petition alleges that the Canadian Wheat Board, a state trading enterprise with a near monopoly on Canadian wheat sales, engages in unfair trade practices in its export sales of wheat, including to the U.S. market and to certain third-country markets of interest to U.S. exporters.²

¹ Subsequently, the Commission received letters on Sept. 24, 2001, Sept. 28, 2001, Oct. 5, 2001, and Oct. 11, 2001, from USTR ultimately extending the due date for the report until Nov. 1, 2001.

² Section 301 Petition of North Dakota Wheat Commission, submitted to USTR by counsel on Sept. 8, 2000. The 301 petition alleges that the Canadian Wheat Board (CWB) engages in unfair trading practices affecting U.S. Durum wheat and U.S. Hard Red Spring (HRS) wheat, predominantly grown in North Dakota and adjacent States. A dozen U.S. farm organizations, 38 Congressmen and Senators, and three elected state officials (the North Dakota Governor, Attorney General, and Commissioner of Agriculture) supported the petition. The petition focused on Canadian wheat sold in the U.S. market, and in eight foreign markets where U.S. wheat exporters were allegedly adversely affected. The eight countries are Algeria, Brazil, Colombia, Guatemala, Peru, the Philippines, South Africa, and Venezuela. In December 2000, the petitioner further quantified the unfair trading practices as across the board price undercutting of approximately 8 percent, over-delivered protein content in wheat (providing about a 1 percent price undercut), and other transportation benefits equivalent to an additional 1 percent of the price. The petitioner recommended that the Administration impose a tariff-rate quota on Canadian imports into the United States as a remedy for these practices.

Purpose

As requested by USTR, the report specifically provides:

1. a summary of a survey of U.S. Hard Red Spring wheat and Durum wheat purchasers, including wheat millers, as to the conditions of competition between U.S. and Canadian wheat during the 5 most recent years, including such data as quantity and prices, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition;
2. a summary of a survey of U.S. Hard Red Spring and Durum wheat exporters as to conditions of competition for the most recent 5 years in selected key foreign markets in Latin America, the Philippines, and other significant markets, between U.S. and Canadian wheat, providing such data as sale quantity and prices, lost sales of U.S. wheat to Canadian wheat, technical considerations in the purchase of U.S. versus Canadian wheat, and other relevant factors of competition; and
3. a summary of the current conditions of wheat trade between the United States and Canada, including relevant information on prices, exchange rates, transportation, marketing practices, U.S. and Canadian farm policies, and other significant economic factors that might be relevant.

Scope

The study covers two of the five leading classes of wheat grown by U.S. farmers: U.S. Hard Red Spring wheat and Durum wheat.³ These two wheat classes accounted for 22 and 5 percent, respectively, of total 2000 U.S. wheat production. The investigation focuses mainly on sales of U.S. and Canadian wheat in the United States, and exports of wheat to eight key foreign markets: Algeria, Brazil, Colombia, Guatemala, Peru, the Philippines, South Africa, and Venezuela. The time frame is primarily the last 5 marketing years⁴ (beginning June 1) 1996/97 through 2000/01.

Approach

A public hearing in connection with this investigation was held on June 6, 2001, in Washington DC.⁵ Notice of the investigation and hearing was given by posting copies of

³ In the United States, the primary commercial wheats covered are Hard Red Spring (HRS), and Hard Amber Durum (HAD); in Canada, the respective classes are Canadian Western Red Spring (CWRS), and Canadian Western Amber Durum (CWAD). U.S. HRS also trades as “Dark Northern Spring” wheat.

⁴ Throughout this report, marketing years are used (unless identified otherwise). The marketing year begins June 1 and ends May 31.

⁵ Appendix B contains a witness list for the public hearing.

the notice at the Office of the Secretary, U.S. International Trade Commission, and by publishing the notice in the *Federal Register* of April 18, 2001 (66 F.R. 19982).⁶

Commission questionnaires were sent to 84 potential Durum and/or HRS wheat exporters, importers, wheat mills, merchandisers, and/or shippers.⁷ Thirty-eight respondents indicated they did not export, merchandise, or ship these wheats during the period under consideration or were duplicate subsidiaries of other firms. Twenty exporter firms provided usable data to the Commission, accounting for all U.S. exports of the two types of wheat under investigation in 2000/01.⁸ Twenty-six firms indicated they did purchase, mill, import, or process the subject wheats and provided usable data. It is estimated that these 26 firms accounted for about 80 percent of domestic milling of Durum wheat, and virtually all domestic milling of HRS wheat; these companies accounted for all U.S. imports of the subject wheats in 2000.⁹

The USITC questionnaire data does not include data on sales, quality characteristics, and prices of wheat exported to third country markets directly by the CWB or through Canadian or foreign firms not located in the United States. The CWB exports Canadian wheat directly into foreign markets, or it makes it available to licensed export agents for sales into foreign markets. The CWB estimated that direct CWB sales account for approximately *** percent of its wheat exports, with the remainder being sold to licensed export agents.¹⁰ The 20 respondents to the Commission exporter questionnaire are estimated to account for *** percent of Canadian Durum wheat exports and 61 percent of CWRS wheat exports to the eight covered markets in 2000/01.¹¹

It should also be highlighted that the coverage of the exporters' questionnaire was inconsistent for the five years. Several large companies did not have available data for 1996/97 to 1998/99;¹² however, data for 1999/2000 and 2000/01 generally cover nearly 100 percent of U.S. HRS and Durum exports to the 8 foreign markets.

The information in this report is from the Commission's public hearing, written submissions, Commission questionnaires, submissions made to USTR under section 301 of the Trade Act of 1974, domestic fieldwork, and interviews with producers, purchasers, importers, exporters, academicians, and associations. Additional information was obtained from the U.S. Department of Agriculture (USDA), U.S. Department of Commerce, U.S. Department of

⁶ A copy of the notice of the Commission's investigation and hearing is included in appendix B.

⁷ The USTR sent a questionnaire directly to the CWB, the results of which were shared with the Commission.

⁸ Based on USDA grain inspections data on a quantity basis.

⁹ For calendar year 2000, the U.S. Census Bureau reported domestic production of 32 million hundredweight (cwt) of semolina (Durum) flour and 421 million cwt of wheat flour (*Flour Milling Products, Current Industrial Reports, Series MQ3, July 2001*); U.S. imports of Durum and HRS wheat from Canada in 2000/01 were 349,000 metric tons and 1,220,000 metric tons, respectively, according to official U.S. Census data.

¹⁰ USITC interview with staff of the CWB, July 13, 2001.

¹¹ USITC exporter respondents reported *** of Durum wheat and 1,615 thousand metric tons of CWRS wheat exports to the eight covered markets in 2000/01. Statistics Canada reported 2,007 thousand metric tons and 2,665 thousand metric tons of Durum and CWRS wheat exports in 2000.

¹² * * *

State, the CWB, research and reports of various U.S. and Canadian academic institutions, and previous Commission studies. Fieldwork took place in Canada, North Dakota, the State of Washington, and Minnesota.

Organization of Study

Chapter 2 provides an overview of the current trade conditions of HRS and Durum wheat industries with respect to the structure of the industry, production, consumption, trade, and farm programs. Chapter 3 describes key factors affecting competition between the United States and Canada. Chapter 4 provides the results of the USITC survey of U.S. HRS and Durum wheat purchasers; including data on quantities purchased, prices paid, technical considerations regarding purchases, and purchaser comments regarding U.S. and Canadian marketing practices over the most recent five years. Chapter 5 provides a summary of the USITC survey of U.S. HRS and Durum wheat exporters; including data on quantities exported, prices, technical considerations regarding sales, lost sales of U.S. wheat to Canadian wheat, exporter comments regarding U.S. and Canadian marketing practices, and other relevant factors of competition.

Appendices include the request letter, Federal Register Notice, list of witnesses, and a review of published economic studies on the issue of the CWB and its economic power.

CHAPTER 2

CURRENT TRADE CONDITIONS FOR U.S. AND CANADIAN WHEAT

This chapter describes world, U.S., and Canadian supply and demand changes during 1996/97 to 2000/01;¹ certain U.S. and Canadian government farm programs affecting wheat production; and trade.² Canadian programs affecting U.S. exports of wheat to Canada and to third-country markets (such as Canadian end-use certificates) are also detailed here.

Overview of the World Wheat Markets and Exports During 1996/97 to 2000/01

This investigation focuses on two types of wheat grown in the United States and Canada: Hard Red Spring (HRS) and Durum. U.S. farmers produce three other classes of wheat, Hard Red Winter (HRW), White, and Soft Red Winter, that account for the majority (73 percent) of recent U.S. wheat production.³

HRS and Durum wheat classes account for nearly all U.S. imports of wheat, all but a small fraction of which came from Canada. U.S. Durum and HRS wheat exports accounted for 28 percent of the volume of U.S. wheat exports in recent years, roughly the same share as U.S. production.

World supply and demand changes

During the past 5 years, wheat markets were generally soft with prices declining and export markets very competitive and price sensitive. Ending world stocks have declined since 1998/99, but in 2001/02, U.S. farm prices for wheat still remained at distressed levels, supported by USDA payments and programs.

World prices and stocks

U.S. and world wheat prices reached record levels in 1995/96, but then began a steady decline into 2000/01 (figures 2-1 and 2-2). U.S. and Canadian nominal export wheat prices during calendar years 1996 to 2001 were as follows:

¹ The split year refers to the marketing year, beginning June 1 and ending May 31.

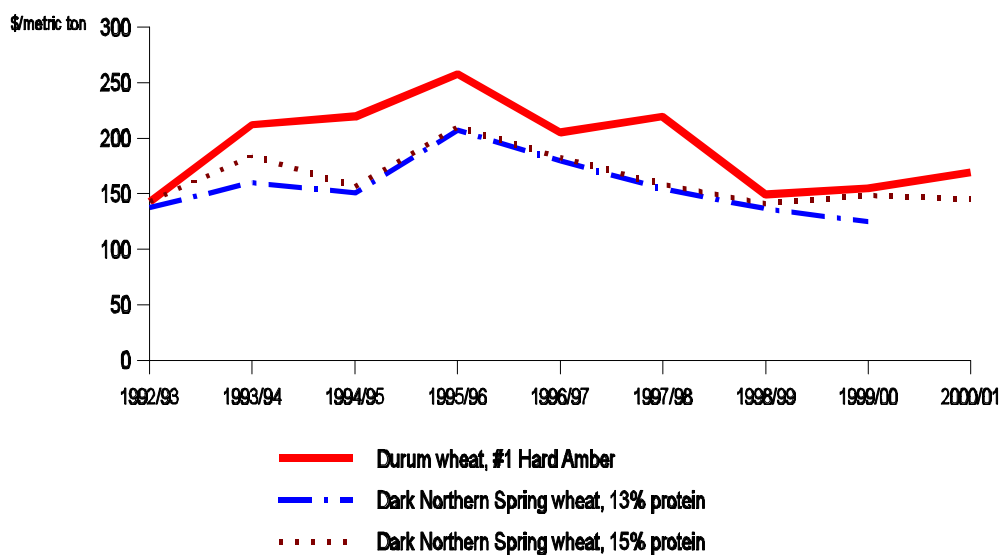
² The Canadian Wheat Board is discussed primarily in Chapter 3.

³ Durum wheat is used primarily in pasta products or cous cous. The others types of wheat—HRS, HRW, and White wheat—are used mainly in bread or baked goods production.

Calendar year	U.S. Hard Red Winter, ordinary protein, U.S. Gulf	U.S. Dark Northern Spring, Rotterdam	Western Red 13.5-percent protein, in-store, St. Lawrence	No. 1 Canadian Spring (CWRS), in-store, St. Lawrence
<i>U.S. dollars per metric ton</i>				
1996	\$207	\$239		\$230
1997	160	209		181
1998	126	181		163
1999	112	173		152
2000	114	163		149
2001:				
Jan.-May	133	169		157

Source: U.S. Department of Agriculture (USDA), Economic Research Service (ERS), *Wheat Situation and Outlook Yearbook*, Mar. 2001, and June 14, 2001, and data of the International Grains Council.

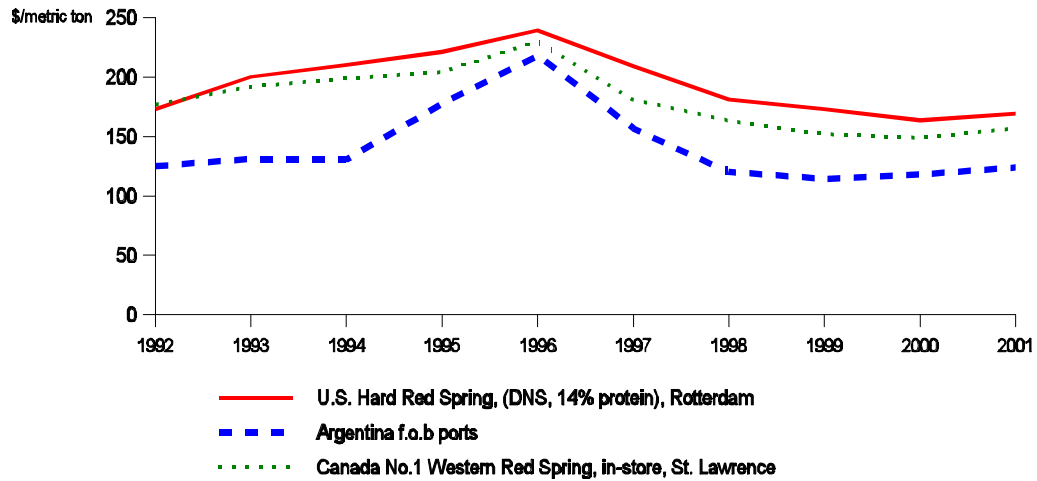
Figure 2-1
U.S. Hard Red (Dark Northern) Spring and Durum wheat: Cash prices at Minneapolis, marketing years 1992/93 to 2000/01



Note.—Marketing year beginning June 1; simple annual average monthly prices.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Figure 2-2
Non-Durum wheat: U.S. and foreign prices, calendar years 1992 to 2001¹



¹ Jan.-May 2001.

Source: Compiled from official statistics of the U.S. Department of Agriculture, and the International Grains Council.

U.S. Dark Northern Spring (DNS) is the U.S. Hard Red Spring wheat directly competitive with Canadian Western Red Spring (CWRS). U.S. Hard Red Winter wheat is the dominant wheat traded in the world, and its price is widely viewed as a “world price” for wheat.

During 1996/97 to 2000/01, worldwide wheat stocks rose until 1998/99 and then declined through 2000/01 (table 2-1). Canadian ending stocks at year end nearly doubled from 1996/97 to 2000/01. World wheat stocks as a share of total world wheat trade rose from 141 to 150 percent from 1996/97 to 2000/01.

Market shares, by leading exporting countries, and markets

Annual world imports of wheat and wheat flour were essentially flat during the past 5 years at about 104 million metric tons (mmt) annually (table 2-2). Imports into the eight foreign markets under consideration in this investigation (Algeria, Brazil, Colombia, Guatemala,

Table 2-1**All wheat: World production, consumption, trade, and stocks, marketing years 1996/97 to 2000/01**

	1996/97	1997/98	1998/99	1999/00	2000/01 ¹
	<i>Quantity (million metric tons)</i>				
All foreign countries, including Canada:					
Production	519.9	541.7	519.5	524.4	518.2
Consumption	541.5	549.4	547.4	558.9	552.9
Ending stocks	133.3	151.3	149.0	141.6	133.4
Canada:					
Production	29.8	24.3	24.1	26.9	26.8
Imports	(²)	(²)	(²)	(²)	(²)
Consumption	8.2	7.3	8.1	7.9	8.2
Exports	18.1	21.3	14.4	19.4	19.0
Ending stocks	4.3	6.0	7.4	7.4	8.1
United States:					
Production	62.0	67.5	69.3	62.6	60.5
Imports	2.6	2.6	2.9	2.5	2.4
Consumption	35.4	34.2	37.7	35.4	36.6
Exports	27.1	28.1	29.0	29.5	30.0
Ending stocks	12.1	19.7	25.7	25.8	22.8
Total world:					
Production	581.9	609.2	588.8	587.0	578.7
Consumption	576.9	583.6	585.1	594.3	589.4
Trade	103.8	104.0	102.0	112.4	104.2
Ending stocks	145.4	170.9	175.0	167.4	156.7
	<i>Share (percent)</i>				
Ratio of ending stocks to:					
Trade	141	164	172	149	150
Consumption	25	29	30	28	27

¹ Estimated as of June 2001.² Less than 0.5 mmt.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-2**Wheat and wheat flour:¹ Imports into eight selected countries, and the world, marketing years 1996/97 to 2000/01¹**

Market	1996/97	1997/98	1998/99	1999/00	2000/01 ²
	Quantity (thousand metric tons)				
Brazil	5,794	6,084	7,325	7,196	7,900
Algeria	3,630	5,221	4,250	4,750	5,000
Philippines	2,176	1,959	2,328	3,000	3,000
Venezuela	1,204	1,224	1,300	1,386	1,400
Peru	1,292	1,265	1,348	1,250	1,250
Colombia	918	1,099	1,101	1,135	1,100
South Africa	974	665	567	806	600
Guatemala	294	300	325	335	³ 330
Subtotal	16,282	17,817	18,544	19,858	20,580
World total, all markets	103,756	104,013	101,992	112,441	104,240
	Share (percent)				
Eight above countries' share of world total	16	17	18	18	20

¹ Includes all types of wheat including Durum. USDA includes flour equivalent trade in these totals.

² Estimated as of June 2001.

³ Commission staff estimate.

Source: Compiled from official statistics of the U.S. Department of Agriculture, except as noted.

Peru, Philippines, South Africa, and Venezuela) from all sources rose 26 percent over this period to about 21 mmt in 2000/01; these eight countries collectively purchased almost 20 percent of the world imports of wheat and wheat flour during the 5 years under investigation.

Algeria is by far the leading market in the world for Durum accounting for 30 percent of the world imports in 2000/01 (table 2-3). Venezuela and Peru are also among the top nine markets for Durum with a 5-percent and 3-percent share, respectively.

Five countries dominate world exports of all wheat, although most Durum exports come from three countries (tables 2-4 and 2-5). Over the past 5 years, the United States was the leading world wheat exporter, with its share of world exports averaging about 27 percent annually. Canada was the second leading wheat exporter with an average 17-percent share during the period. Together, Australia, the EU, and Argentina accounted for another 41 percent.

Canada is the world's leading exporter of Durum, with an average 58-percent of world Durum exports during 1996/97 to 2000/01 (table 2-5). The U.S. share of world Durum exports averaged about 20 percent during the same period, and the EU followed with a 5-percent share.

Table 2-3**Durum wheat¹: World imports by leading markets, marketing years 1996/97 to 2000/01²**

Market	1996/97	1997/98	1998/99	1999/00	2000/01 ²
<i>Thousand metric tons</i>					
Algeria	1,750	2,658	1,935	2,050	2,150
EU	900	1,490	816	830	900
Morocco	350	520	477	550	625
Tunisia	130	551	225	400	550
United States	410	468	542	480	530
Venezuela	370	287	315	360	360
Japan	250	247	240	200	250
Libya	220	217	113	200	250
Peru	160	130	176	160	180
All other	1,560	1,136	1,366	1,370	1,305
Total	6,100	7,704	6,205	6,600	7,100

¹ Includes semolina.² Projected as of Mar. 21, 2001.Source: International Grains Council, *Grain Market Report*, Table 22c, various years.**Table 2-4****All wheat: World exports by leading suppliers, marketing years 1996/97 to 2000/01¹**

Market	1996/97	1997/98	1998/99	1999/00	2000/01 ¹
<i>Quantity (million metric tons)</i>					
United States	27	28	29	29	29
Canada	18	21	14	19	18
Australia	18	15	16	17	16
EU	10	14	15	17	15
Argentina	13	10	9	11	12
All other	17	16	19	19	14
Total	104	104	102	112	104
<i>Share (percent)</i>					
United States	26	27	28	26	28
Canada	17	20	14	17	17
Australia	17	14	16	15	15
EU	17	13	15	15	14
Argentina	10	10	9	10	12
All other	16	15	19	17	13
Total	100	100	100	100	100

¹ Estimated as of June 2001.

Note.—Totals may vary because of rounding; totals include all wheat, Durum wheat flour, and wheat products.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-5
Durum wheat:¹ World exports by leading suppliers, marketing years 1996/97 to 2000/01²

Market	1996/97	1997/98	1998/99	1999/00	2000/01 ²
	Quantity (thousand metric tons)				
Canada	3,886	4,412	3,572	3,786	3,900
United States	1,051	1,507	1,427	1,263	1,400
EU	400	285	287	293	450
Mexico	201	277	96	200	400
Turkey	(³)	112	225	650	400
All other	562	1,111	598	408	550
Total	6,100	7,704	6,205	6,600	7,100
	Share (percent)				
Canada	64	57	58	57	55
United States	17	20	23	19	20
EU	7	4	5	4	6
Mexico	3	4	2	3	6
Turkey	(³)	1	4	10	6
All other	9	14	10	6	8
Total	100	100	100	100	100

¹ Includes semolina flour.

² Projected as of Mar. 21, 2001.

³ Not reported separately, included in "all other."

Source: International Grains Council, *Grain Market Report*, table 22c, various years.

Overview of the U.S. Wheat Industry

U.S. farmers grow five leading classes of wheat. However, this investigation focuses mainly on two classes—HRS and Durum wheat—that in 2000 accounted for 22 and 5 percent, respectively, of total U.S. wheat production.⁴

U.S. wheat farmers and grain trading

In 1997, there were 46,300 Spring wheat farms reported in the United States, according to the *1997 Census of Agriculture*,⁵ with 17.5 million harvested acres. U.S. Durum wheat farms totaled 6,900 in 1997, and contained 3.1 million harvested acres. North Dakota accounted for 47 percent of the U.S. Spring wheat acreage and 81 percent of the U.S. Durum acreage. Montana was the second leading supplier with 22 percent of total Spring wheat acreage, and 9 percent of Durum acreage. Durum production in California and Arizona—"desert Durum"—accounted for 7 percent of Durum acreage, but 24 percent of total U.S. Durum production.

U.S. wheat farmers can choose to plant HRS, Durum, other varieties of wheat, or other crops. In leading HRS States, like North Dakota, alternative crops are mainly barley, oats, alfalfa (forage crops) or oilseeds (canola, sunflowerseed, flaxseed). When prices rise, U.S. farmers

⁴ Imports of Durum wheat are classified for U.S. tariff purposes under HTS subheading 1001.10 and Hard Red Spring wheat under HTS subheading 1001.90.

⁵ USDA, *1997 Census of Agriculture*, Vol. 5, part 51, table 26.

typically vigorously increase their Durum wheat planting; whereas for HRS wheat, higher prices encourage much lower increased HRS planting.⁶ Farmers can easily shift from some of the large acreage planted in HRS wheat to Durum wheat (which is planted on a relatively small amount of acreage), whereas there is comparatively little acreage in the minor crops that can be shifted into HRS or other types of hard wheat to affect their total acreage planted.

Grain is a bulky fungible commodity for which the delivered price is often the leading factor in the purchase decision. Within U.S. regions, prices differ by the cost of transport (mostly rail or river barge) to common market areas, such as an export terminal (the “basis”).⁷ Rail is the dominant mode of transportation of grain from primary grain elevators to end users. Seven major railroads (so-called “Class I” railroads) transport most grain in the United States.⁸

Transportation and grain-trading (merchandising) are closely related since the transportation of grain is relatively costly and time-consuming. Farmers generally sell their grain within a limited geographic area surrounding their farms, usually to a country elevator or if located near a river, rail or port elevator sometimes bypass the country elevator and ship their grain directly to an export terminal or subterminal.⁹ Within the United States, farmers market their crops to competitive grain elevators located within a “draw area.”¹⁰

Grain trading is also concentrated among a relatively few companies in the United States and abroad. The storage capacity of the 10-largest U.S. grain elevator, milling, and processing companies in 1999 totaled 2.2 billion bushels of which Cargill/Continental had a 29-percent share, and the second largest company, ADM, had a 28-percent share.¹¹ The merger of Cargill and Continental Grain Co.’s grain operations in 1999 created the largest U.S. grain company, with nearly 15.5 million tons of licensed storage capacity in 318 U.S. locations.¹² Three farm cooperatives, Farmland Grain Division, Cenex Harvest State Cooperative, and Riceland Foods, together accounted for about 19 percent of this storage capacity in 1999. Cenex Harvest States Cooperative markets (“originates”) about 70 percent of the U.S. Durum

⁶ The price elasticity of the domestic supply of HRS and other types of hard wheat is generally low (estimated at around 0.3), whereas the price elasticity of supply of Durum is high (ranging from 0.86 to 0.98 among U.S. States). Source: Won Koo, et.al., North Dakota State University, Department of Agricultural Economics, *Economic Analysis of the Proposed North Dakota Wheat Pool*, Jan. 1999, pp. 43-44.

⁷ For further elaboration, see Robert Ohertman and L.D. Schnake, “Marketing Channels and Storage,” *Grain Marketing* (Gail Carmer and Eric Wailes, eds), 1993, pp. 61-120.

⁸ Data of the Association of American Railroads, and the Interstate Commerce Commission, quoted in, “BNSF-CN Deal Brings Rail Merger Front and Center,” *Feedstuffs*, Mar. 18, 2000, p. 1.

⁹ See United States of America (U.S. Department of Justice (DOJ)), Plaintiff, v. Cargill, Incorporated and Continental Grain Company, defendants, Competitive Impact Statement, Case No. 1:99CV01875, July 23, 1999 found at www.usdoj.gov/atr/cases/f2500/2584.htm, retrieved Aug. 9, 1999, p. 3.

¹⁰ The U.S. Department of Justice in a 1999 antitrust case involving the merger of two of the largest U.S. grain-trading companies defined four separate U.S. geographic regions as “draw areas.”

¹¹ “Merging Two Grain Giants,” *World Grain*, January 1999, p. 30; and Marvin Hayenga and Robert Wisner, “Study Evaluated Cargill’s Purchase of Continental Grain’s Grain Business,” *Feedstuffs*, Feb. 8, 1999, p. 1, table 2.

¹² *Ibid.*

production grown in the North Central region of the United States.¹³ Further, the four-leading firms accounted for 47 percent of U.S. wheat exports, according to USDA data.¹⁴

The U.S. Milling Sector

Although the scope of this investigation includes only unmilled wheat, the domestic consuming industry—the wheat milling sector—has a direct bearing on conditions of competition. Wheat flour mills and Durum mills in the United States tend to specialize in either one or the other wheat. The wheat flour mills tend to produce bread-type flour, family flour, or specialized flours for baking. Durum mills on the other hand produce almost exclusively semolina (coarse durum flour) for pasta producers, and very small amounts of durum flour (for specialized breakfast cereals and foods). Wheat flour mills will often buy HRS and HRW, and blend them to achieve a desired flour. Durum mills purchase only Durum wheat.

In 1997, domestic shipments of the wheat flour milling industry totaled \$5.2 billion.¹⁵ Commerce reported that in 1997 there were eight companies (with annual shipments of \$100,000 or more) that together shipped \$358 million of either semolina or Durum flour.

In 2000, according to published data, the 200 wheat flour mills reported in the United States used HRS, HRW, soft red wheat, and/or White wheat; in that year, there were a reported 25 U.S. Durum mills.¹⁶ The reported daily capacity of the U.S. wheat flour milling companies in 2000 was 1,511,000 hundred weight (cwt) of wheat flour. The daily capacity of U.S. Durum mills was 149,000 cwt of semolina. Kansas, California, New York, Minnesota, and Pennsylvania were the four leading wheat-flour milling states (with 39 percent of total U.S. capacity); whereas for Durum mills—North Dakota, Missouri, and Minnesota dominated with 50 percent of the U.S. capacity.

The four leading flour companies accounted for nearly two-thirds of domestic flour milling capacity in 2000, but did only negligible Durum milling.¹⁷ The four largest Durum milling companies had about 60 percent of the U.S. capacity in 2000; two of these four Durum companies were exclusively Durum millers and one company dedicated about three-quarters of its processing capacity solely for Durum.

¹³ North Dakota Wheat Commission (NDWC) posthearing supplemental brief, June 28, 2001, p. 17.

¹⁴ “Merging Two Grain Giants,” *World Grain*, January 1999, p. 30; and Marvin Hayenga and Robert Wisner, “Study Evaluated Cargill’s Purchase of Continental Grain’s Grain Business,” *Feedstuffs*, Feb. 8, 1999, p. 1, table 4.

¹⁵ U.S. Census Bureau, U.S. Department of Commerce, *1997 Economic Census, Manufacturing—Flour Milling*; the entire wheat flour industry is classified under NAICS code 3112.111 and durum mills under NAICS code 3112.118D.

¹⁶ Milling and Baking News, *Grain and Milling Annual, 2000*, p. 70.

¹⁷ *Ibid.*, p. 72.

Product substitution

There are several issues regarding product substitutability among the five classes of wheat and between U.S. and Canadian origin wheat. The degree of substitution for milling purposes among the five classes of wheat depends primarily on the end use of the wheat to achieve a desired result in a particular bread, pasta, cookie, or cracker.¹⁸ Within a single class of wheat, for example Hard Red Spring, and within a specific grade, for example No. 1,¹⁹ the primary distinguishing characteristic is the protein level.

Among the five classes of wheat, HRS and HRW are the closest substitutes. Commission staff interviews with industry officials and questionnaire responses indicated that traditional bread-flour millers tend to switch between these two hard wheats or to blend these two wheats frequently to achieve a desired flour.²⁰

Durum wheat has a much lower degree of substitutability for HRS or any of the other wheats. Similarly, Soft Red Winter and White wheat have more specialized uses, and thus, a low degree of substitution.

With regard to the substitution of comparable Canadian and U.S. wheat, the Commission found in 1994 that wheat of comparable classes from the United States and Canada tend to be perfect or near perfect substitutes on the basis of the various physical characteristics of the wheats.²¹ Results of Commission staff interviews and questionnaire responses for the current investigation also indicate close substitution for domestic and Canadian wheat.

¹⁸ See USITC, *Industry and Trade Summary: Grain (Cereals)*, USITC publication 3350, September 2000, p.10; USITC, *Wheat, Wheat Flour, and Semolina*, USITC publication 2794, July 1994, pp. II-4 to II-11.

¹⁹ USDA grades range from 1 to 5, with grade No. 1 being the highest quality. For a full description of U.S. and Canadian grades, see USITC, *Wheat, Wheat Flour, and Semolina*, USITC publication 2794, July 1994, pp. II-4 to II-6.

²⁰ USDA economic research tends to confirm that Hard Red Winter and Hard Red Spring wheats have a high cross price elasticity. Because of the high substitution between HRS and HRW wheats, a price rise for HRS generally results in a sharp decline in the quantity purchased of HRS. The lack of any close substitute wheat for Durum results in a price elasticity of demand for Durum of nearly zero, and thus, a moderate rise in Durum prices would have virtually no effect on the quantity demanded. Source: James Barnes and Dennis Shields, "The Growth in U.S. Wheat Food Demand," USDA/ERS, *Wheat Yearbook*, March 1998, pp. 21-29, cited in NDWC, Pre-Hearing Brief to the Commission, May 25, 2001, pp. 27-28.

The price elasticity of demand for HRS is quite high (calculated at -1.58) while the price elasticity of demand for Durum wheat tends to be low (-0.1). Source: Won Koo, et.al., North Dakota State University, Department of Agricultural Economics, *Economic Analysis of the Proposed North Dakota Wheat Pool*, January 1999, pp. 43-44.

²¹ USITC, *Wheat, Wheat Flour, and Semolina*, USITC publication 2794, July 1994, p. II-83, and appendix M.

U.S. Government Programs

This section summarizes three U.S. crop programs believed to influence wheat production significantly: direct payments, marketing and loan assistance, and crop insurance.

Production flexibility contract payments (PFC)

The Federal Agriculture Improvement and Reform Act (FAIR) of 1996²² provides fixed payments which are not linked to current planted acreage, current farm prices, or the volume of the program crops produced;²³ these payments are called Production Flexibility Contract (PFC) payments. Under the FAIR Act, total PFC wheat payments were \$1.3 billion, averaging \$0.59 per bushel, in 2000, as shown in the following tabulation. To be eligible for PFC payment, farmers must have enrolled in a production flexibility contract (PFC) for the 1996/2002 period during the one-time enrollment held in 1996.

<u>Fiscal year</u>					
<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
----- Total PFC payments (\$ million) -----					
1,397	1,496	1,445	1,337	1,073	1,041
----- PFC rate per bushel (\$/bushel) -----					
0.62	0.66	0.64	0.59	0.47	0.46

Source: USDA, Office of Chief Economist, *USDA Agricultural Baseline Projections to 2010*, February 2001, pp. 42-43, these are projected PFC payments after adjustments and limits.

Congress separately provided for emergency and disaster relief under the Omnibus Consolidated and Emergency Supplemental Appropriations Act of Fiscal Year 1999 and the Appropriations Act of Fiscal Year 2000, which increased the PFC payments as well as made direct relief grants to affected farmers. Congress provided \$2.9 billion for additional PFC payments for crop loss assistance under the 1999 Appropriations Act,²⁴ and in the Agricultural Risk Act of 2000, an additional \$5.5 billion for PFC payments for all crops in FY2000.

²² USDA, ERS, *Provisions of the Federal Agriculture Improvement and Reform Act (FAIR) of 1996*, bulletin No. 729, September 1996, p. ii.

²³ The eligible crops are wheat, corn, sorghum, barley, oats, upland cotton, and rice.

²⁴ The 1999 appropriation Act included as well \$1.4 billion in disaster relief (including \$200 million for livestock producers); total 1999 spending for farm support was an additional \$8.7 billion. USDA, Office of Chief Economist, *USDA Agricultural Baseline Projections to 2010*, February 2001, pp. 36-37.

Marketing assistance

U.S. wheat farmers have the option of placing their crop as collateral for USDA loans, called nonrecourse loans, which can be redeemed by the farmer prior to maturity with funds from the market sale of the product.²⁵ If market prices are below the loan repayment rate, the farmer may default on the loan obligation and forfeit the product to the Government, or repay the loan at the prevailing world market price. If market prices exceed loan rates, a farmer can sell the product, pay off the loan and interest, and retain the difference. The farmer may also agree not to exercise the loan option and receive a “loan deficiency payment (LDP).” In general, a LDP is the difference between the current market price and the USDA fixed loan rate.

Farmers may repay the nonrecourse loan plus interest anytime prior to maturity and then sell the pledged crop or forfeit the collateral to the government as full payment within the 9-month loan period.²⁶ The loan repayment rate will be lower than the loan rate plus interest when the posted country price (PCP) for wheat is below the loan rate. When a farmer repays the loan rate at this lower rate, the difference between the original loan rate and the repayment is called a “marketing loan gain” (any accrued interest is waived). The loan program thereby provides an “effective” price floor at the loan rate for farmers eligible to place their crops under loan, but does not establish a floor for actual market prices since grain can enter the market at prices below the loan rate. The marketing loan rate has been \$2.58 per bushel of wheat during 1996-2001.

In those cases when the PCP or prevailing world market price is below the loan rate, eligible producers may opt for a LDP instead of taking out a nonrecourse loan.²⁷ Once the LDP is paid, the crop cannot later go under the loan program. A producer may immediately sell the crop and receive the LDP, effectively receiving the equivalent revenue of the loan rate. The lower market prices since 1998/99 have triggered LDPs for most farmers. The LDP essentially functions as the previous “deficiency payments” did under early farm legislation, supporting farm income, but not the market price.²⁸ For the 1999 crop (the most recent crop for which data are available), USDA indicated that the marketing loan gains and the LDPs added 14 percent to the average per-unit revenue farmers received for their 1999 wheat crop:

Item	Season average price	Marketing loan benefit¹	Average per-unit revenue	Commodity loan rate	Realized average revenue above loan rate
	2.48	0.41	2.89	2.58	0.31

Source: USDA, Office of the Chief Economist, *USDA Agricultural Baseline Projections to 2010*, February 2001, p. 36.

²⁵ USDA, ERS, *Provisions of the Federal Agriculture Improvement and Reform Act (FAIR) of 1996*, bulletin No. 729, September 1996, pp. 9-12.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Mitchell Morehart et al., “U.S. Farm Income Decline in 2000 to be Tempered by Government Payments,” USDA, ERS, *Agricultural Outlook*, January-February 2000, pp. 6-8.

Federal crop insurance program

The Federal crop insurance program has been an important Government program for U.S. wheat production for many years, most recently authorized under the FAIR Act and then modified under the Agricultural Risk Protection Act of 2000 (ARPA). In 2000, about 45 million acres of wheat harvested for grain were insured, accounting for 53 percent of the value of U.S. wheat production and 73 percent of the acreage, according to USDA.²⁹

Wheat producers can purchase insurance policies to make indemnity payments based on current losses related to either below-average yields (yield insurance) or below-average market revenue (revenue insurance). Farmers purchase the policies through private insurance companies, but USDA's Federal Crop Insurance Corporation pays a portion of the insurance premiums and an additional subsidy to the insurance company for administration. There are a variety of insurance policies available to wheat growers; yield insurance policies accounted for most insurance acres through the 2000 crop, but the revenue insurance product (crop revenue coverage (CRC)) was the leading insurance product in 2001.

Under the ARPA, farmers pay about 40 to 50 percent of the total insurance premiums for most levels of coverage with the Government providing the remainder. The total premium subsidy that USDA paid for wheat insurance during 1996/97 to 2000/01 averaged about \$150 million, peaking in 2000 at about \$210 million.³⁰ During this period, the net effect of the insurance premium subsidy on domestic wheat production was small (resulting in less than a 0.5 percent rise in output).³¹ However in 1999, U.S. Durum production rose as guaranteed higher Durum prices in CRC policies induced a sharp increase in North Dakota plantings according to USDA.³² In 2001 USDA dropped CRC coverage for durum wheat because of its difficulty of determining an accurate Durum price on which to establish the insurance program.

U.S. production, consumption, and stocks

U.S. wheat trade and production

During the period of investigation, U.S. wheat production rose until 1998/99, and then steadily fell into 2000/01 (table 2-6). For the 2000/01 crop being harvested in the Summer and Fall of 2001, USDA's projected U.S. wheat production was 1,974 million bushels, a

²⁹ Monte Vendeveer and C.Edwin Young, "The Effects of the Federal Crop Insurance Program on Wheat Acreage," USDA, ERS, *Wheat Situation and Outlook Yearbook*, March 2001, pp. 21-29.

³⁰ *Ibid.*, p. 25.

³¹ USDA reasons that any small rise in wheat output because of the insurance subsidy is quickly offset by rising output that then lowers prices in the following year and then discourages output.

³² Monte Vendeveer and C.Edwin Young, "The Effects of the Federal Crop Insurance Program on Wheat Acreage," pp. 28-29.

Table 2-6

All wheat: U.S. production, imports, exports, beginning stocks, and apparent consumption, marketing years 1996/97 to 2000/01

Marketing year beginning June 1-	Production	Exports ²	Imports ²	Beginning stocks	Apparent consumption				Ratio of exports to production	Average price received by farmers
					Food	Feed	Seed	Total		
<i>Million bushels</i>									<i>Percentage</i>	<i>Dollars per bushel</i>
1996/97	2,277	1,002	91	376	891	308	102	1,301	44	\$4.30
1997/98	2,482	1,040	95	444	914	250	92	1,257	42	3.38
1998/99	2,547	1,042	103	723	910	394	81	1,385	41	2.65
1999/00	2,302	1,090	95	946	925	280	92	1,300	47	2.48
2000/01 ¹	2,223	1,062	90	950	960	289	80	1,328	48	2.62

¹ Estimate Aug. 14, 2001.

² Imports and exports include flour and other wheat-containing products expressed in wheat bushel equivalents.

Note.—Apparent consumption is calculated as the sum of production, imports and beginning stocks for the period, less the sum of exports and beginning stocks of the following period. "Feed" includes residual use. Ending stocks in 2000-01 are 873 million bushels.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

11-percent drop below the 2000 crop.³³ Average U.S. farm prices fell from \$4.30 a bushel in 1996/97 to \$2.63 a bushel in 2000/01, very close to the USDA price-support loan rate of \$2.56 a bushel (table 2-6). U.S. ending wheat stocks rose nearly three-fold to 854 million bushels by May 2001. USDA expects U.S. ending wheat stocks in 2001/02 to decline further to 585 million bushels which may result in a higher average farm price.³⁴

Trends in U.S. acreage, production, and crop yields

During the 5 years under review, total U.S. harvested acreage in all types of wheat fell 16 percent from about 63 million to 53 million acres (table 2-7). However, as crop yields rose 17 percent from 36 bushels to 42 bushels per acre, overall U.S. wheat production was largely unchanged at about 2.2 billion bushels.

The U.S. harvested acreage in Hard Red Spring wheat fell by 28 percent, and yields rose by 9 percent, resulting in a nearly 21 percent decline in production. U.S. Durum acreage was considerably more stable at about 3.6 million acres annually during 1996/97 to 2000/01, although yields were extremely volatile (fluctuating between 28 and 37 bushels per acre annually, but generally fell).

U.S. imports and U.S. exports

U.S. imports

U.S. imports of wheat³⁵ ranged from 90 million to 103 million bushels annually during the 5 year period (table 2-6). Most U.S. imports as well as U.S. exports occur in the form of unmilled wheat (“wheat grain”) rather than wheat products, such as flour or pasta (table 2-8 and 2-9). U.S. imports solely of unmilled wheat generally ranged between 70 million and 80 million bushels annually.

U.S. imports of wheat consisted largely of either HRS or Durum wheat. In 2000/01, there were 70 million bushels of unmilled wheat imports of which, 73 percent was HRS, and 23 percent Durum; and the remaining 4 percent mostly White wheat (table 2-9).

Canada supplied over 95 percent of U.S. imports of HRS wheat over the 5-year period. Until 1998/99, the majority of the HRS wheat from Canada consisted of Grade No. 1. However, the majority of HRS wheat from Canada has been Grade 2 or lower since 1998/99 (table 2-10).

Similarly for Durum imports, Canada supplied over 99 percent of U.S. imports (table 2-11). In 1999/2000 and 2000/01, 72 percent of the value of Durum imports from Canada consisted of Grade 1 and 28 percent was Grade 2 or lower (table 2-12).

³³ USDA, *World Agricultural Supply and Demand Estimates* (WASDE), July 11, 2001.

³⁴ *Ibid.*

³⁵ Including wheat, wheat flour, and wheat-containing products.

Table 2-7
Hard Red Spring and Durum wheat: U.S. harvested acreage, yield, and production,
marketing years 1996/97 to 2000/01

Year	Hard Red Spring wheat (HRS)	Durum wheat	All wheat ¹
	Harvested acreage (<i>million acres</i>)		
1996/97	18.8	3.6	62.8
1997/98	17.5	3.2	62.8
1998/99	14.4	3.7	59.0
1999/00	13.8	3.6	53.8
2000/01	13.6	3.6	53.0
	Yield (<i>bushels per acre</i>)		
1996/97	33.6	32.6	36.3
1997/98	28.1	27.6	39.5
1998/99	33.8	37.0	43.2
1999/00	32.5	27.8	42.7
2000/01	36.7	30.8	41.9
	Production (<i>million bushels</i>)		
1996/97	631.0	116.0	2,227.0
1997/98	491.0	88.0	2,481.0
1998/99	486.0	138.0	2,547.0
1999/00	447.9	99.3	2,299.0
2000/01	498.5	109.8	2,223.4

¹ Includes HRS, Durum, Soft Red winter, Hard Red winter, and White wheats.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-8

Wheat and wheat-containing products: Composition of U.S. imports and U.S. exports, by type, marketing years 1996/97 to 2000/01¹

Marketing year beginning June 1—	U.S. imports:			U.S. exports:		
	Wheat grain	Flour and wheat products	Total	Wheat grain	Flour and wheat products	Total
	<i>Million bushels equivalents)</i>					
1996/97	71	21	91	974	28	1,002
1997/98	73	22	95	1,013	27	1,040
1998/99	80	23	103	1,002	39	1,041
1999/00	72	22	95	1,042	46	1,088
2000/01 ¹	70	20	90	1,010	50	1,060

¹ Projected, June 2001.

Note.—Totals may vary because of rounding.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

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Table 2-9

Wheat and wheat-containing products: Composition of U.S. imports, by wheat class, marketing years 1996/97 to 2000/01¹

Marketing year beginning June 1—	Wheat grain:				Total	Flour and other wheat containing products	Grand total
	Durum	Hard Red Spring	Hard Red Winter	All other			
	<i>Million bushels equivalents)</i>						
1996/97	12	46	(²)	12	59	21	91
1997/98	16	51	1	5	68	22	95
1998/99	20	52	1	7	73	23	103
1999/00	16	54	(²)	3	73	22	95
2000/01 ¹	16	51	(²)	3	70	20	90

¹ Forecast, June 2001.

² Less than 500,000 bushels.

Notes.—Totals may vary because of rounding. Imports of the remaining wheat class, Soft Red Winter wheat, are less than 500,000 bushels annually. Totals may vary because of rounding.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-10
Hard Red Spring wheat: U.S. imports from Canada, by grade, marketing years 1996/97 to 2000/01

Item	Marketing year beg. June 1—				
	1996/97	1997/98	1998/99	1999/00	2000/01
	Quantity (thousand metric tons)				
Hard Red Spring wheat:					
Grade 1	808	954	630	397	257
Grade 2	199	291	461	954	962
Other	74	74	49	16	1
Total	1,081	1,319	1,140	1,367	1,220
	Value (million dollars)				
Hard Red Spring wheat:					
Grade 1	138	141	79	46	30
Grade 2	36	45	64	116	131
Other	14	10	7	2	(¹)
Total	188	196	150	164	161
	Unit value (dollars per metric ton)				
Hard Red Spring wheat:					
Grade 1	171	148	125	116	117
Grade 2	181	155	139	121	136
Other	189	135	143	125	139
Total	174	149	132	120	132

¹ Less than \$500,000.

Note.—Totals may vary because of rounding.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 2-11
Durum wheat: U.S. imports, by source, marketing years 1996/97 to 2000/01

Source	Marketing year beg. June 1—				
	1996/97	1997/98	1998/99	1999/00	2000/01
	Quantity (metric tons)				
Canada	328,815	438,994	556,852	424,515	339,449
Rest of the world	0	42	0	0	9,527
World total	328,815	439,036	556,852	424,515	348,976
	Value (thousand dollars)				
Canada	77,915	91,363	87,020	57,445	51,000
Rest of the world	0	2,030	0	0	1,237
World total	77,915	93,393	87,020	57,445	52,237
	Unit value (dollars per metric ton)				
Canada	237	208	156	135	151
Rest of the world	(¹)	4,833	(¹)	(¹)	130
World total	237	214	156	135	150

¹ Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 2-12
Durum wheat: U.S. imports from Canada, by grade, marketing years 1996/97 to 2000/01

Item	1996/97	1997/98	1998/99	1999/00	2000/01
	Quantity (thousand metric tons)				
Durum wheat:					
Grade 1	(¹)	(¹)	(¹)	325	236
Grade 2	(¹)	(¹)	(¹)	96	100
Other	(¹)	(¹)	(¹)	4	3
Total	329	439	557	425	339
	Value (million dollars)				
Durum wheat:					
Grade 1	(¹)	(¹)	(¹)	42	36
Grade 2	(¹)	(¹)	(¹)	14	15
Other	(¹)	(¹)	(¹)	(²)	(³)
Total	78	91	87	57	51
	Unit value (dollar per metric ton)				
Durum wheat:					
Grade 1	(¹)	(¹)	(¹)	130	153
Grade 2	(¹)	(¹)	(¹)	146	150
Other	(¹)	(¹)	(¹)	(³)	(³)
Total	237	208	156	135	151

¹ Not separately reported until Jan. 1999.

² Less than \$500,000.

³ Not applicable.

Note.—Totals may vary because of rounding.

Source: Compiled from official statistics of the U.S. Department of Commerce.

The import-penetration (ratio of imports to apparent consumption) ratio for HRS wheat rose from 16 to 18 percent of U.S. consumption during the 5 years, and for Durum wheat from 25 to 29 percent, (tables 2-13 and 2-14).

U.S. exports

U.S. exports of all wheat and wheat-containing products averaged 1,048 million bushels annually, fluctuating over the 5 years (tables 2-15 and 2-16). U.S. exports of HRS wheat declined 23 percent to 230 million bushels in 2000/01 and exports of Durum rose 32 percent to 50 million bushels. The leading types of U.S. wheat exported are Hard Red Winter, followed by HRS, White, Soft Red, and Durum (table 2-16).

U.S. exports of all types of wheat to the eight markets under consideration fell 10 percent from 4.4 mmt in 1996/97 to 3.6 mmt in 2000/01 (table 2-17). U.S. Durum exports to these eight markets meanwhile dropped from 427,000 metric tons in 1996/97 and to 361,000 tons in 2000/01 (table 2-18). U.S. exports of HRS wheat are not specially provided for in U.S. export nomenclature. U.S. exports of HRS, HRW, and Soft Red wheat to the eight markets under consideration declined from 3.9 mmt in 1996/97 to 3.2 mmt in 1999/2000 (table 2-19).

Overview of the Canadian Wheat Industry

Industry structure

Canada has historically been the second or third leading wheat exporter in the world as well as one of the principal producers. With a relatively small domestic market, third-country markets have played an important role for the industry. Until the beginning of the U.S.-Canadian Free Trade Agreement (CFTA) in the late 1980s, little Canadian wheat went to the United States. The marketing and transportation of wheat from the three key Prairie provinces to either Pacific ports or to the Great Lakes (for shipment to the Atlantic through the St. Lawrence Seaway) has been a key competitive factor for Canadian exports, and this has been controlled for nearly a century by the CWB. The CWB is discussed in detail in Chapter 3.

Spring wheat is the leading and Durum wheat is the second-leading grain grown in Canada; the three Prairie Provinces (Manitoba, Saskatchewan, and Alberta) together produce 99 percent of Canadian production of Spring wheat and all Canadian Durum wheat, according to data of Agriculture and Agri-Food Canada.³⁶ Saskatchewan producers grew 57 percent of the combined 23 mmt of Durum and Spring wheat harvested in 1998; Alberta growers, 30 percent; and Manitoba growers the remaining 13 percent. As the case with U.S. wheat farmers, Canadian growers shift acreage among various grains (wheat, barley, and oats), oilseeds, specialty crops such as peas and lentils, and forage crops, depending on prices and growing conditions.³⁷

³⁶ Production in 1998; Agriculture and Agri-Food Canada, Grains and Oilseeds Division, *Cereals Sector Profile*, April 1999, appendix A.

³⁷ *Ibid.*, pp. 3-4.

Table 2-13

Hard Red Spring wheat: U.S. beginning stocks, production, exports of domestic merchandise, imports for consumption, apparent consumption, and season average price, marketing years 1996/97 to 2000/01¹

Marketing year beginning June 1-	Beginning stocks	Production	Exports	Imports:			Apparent consumption			Ratio of imports to consumption by farmers ² Percentage	Average price received by farmers ² Per bushel
				Wheat grain	Flour and other wheat products	Total	Food	Feed/ seed residual	Total		
				<i>Million bushels</i>							
1996/97	106	631	300	46	6	53	260	64	324	16	\$4.31
1997/98	166	491	240	51	6	57	225	29	253	23	3.52
1998/99	220	486	247	52	6	58	230	54	284	20	3.01
1999/00	233	448	215	54	6	60	235	58	293	20	2.88
2000/01 ¹	218	499	230	53	6	59	(³)	(³)	335	18	2.89

¹ Preliminary, Aug. 2001.

² Northern Plains.

³ Not available.

Note.—Apparent consumption is calculated as the sum of production, imports and beginning stocks for the period, less the sum of exports and beginning stocks of the following period. Imports and exports include flour and other products expressed in wheat equivalent. Ending stocks in 2000/01 were 210 million bushels.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-14

Durum wheat: U.S. beginning stocks, production, exports of domestic merchandise, imports for consumption, apparent consumption, and season average price, marketing years 1996/97 to 2000/01¹

Marketing year beginning June 1–	Beginning stocks	Production	Exports		Imports			Apparent consumption	Ratio of imports to consumption	Average price received by farmers	
			Durum wheat grain	Semolina, pasta and other products	Durum wheat grain	Semolina, pasta and other products	Total				
<i>Million bushels</i>					<i>Million bushels</i>			<i>Percentage</i>	<i>Per bushel</i>		
1996/97	25	116	36	2	38	12	11	24	96	25	\$4.45
1997/98	31	88	50	7	57	16	13	29	69	42	4.92
1998/99	26	138	36	4	40	20	13	34	103	33	3.15
1999/00	55	99	40	4	44	16	13	28	89	31	2.75
2000/01 ¹	50	110	45	5	50	12	14	26	90	29	2.64

¹ Preliminary, Aug. 2001.

Notes.—Apparent consumption is calculated as the sum of production, imports and beginning stocks for the period, less the sum of exports and beginning stocks of the following period. Imports and exports include flour and other products expressed in wheat equivalent. Total may vary because of rounding. Ending stocks in 2000/01 were 45 million bushels.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

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Table 2-15

Wheat and wheat-containing products: Composition of U.S. exports, by type and by wheat class, marketing years 1996/97 to 2000/01¹

Marketing year beginning June 1–	Wheat grain:			Flour and wheat-containing products	Grand total
	Durum	Other	Total		
<i>Million bushels equivalents</i>					
1996/97	36	938	974	28	1,002
1997/98	50	963	1,013	27	1,040
1998/99	36	967	1,003	39	1,042
1999/00	40	1,002	1,042	48	1,090
2000/01 ¹	42	960	1,002	60	1,062

¹ Preliminary, Aug. 2001.

Note.—Totals may vary because of rounding.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-16**Wheat and wheat-containing products: U.S. exports, by wheat class, marketing years 1996/97 to 2000/01¹**

Marketing year beginning June 1—	Hard Red Winter	Hard Red Spring	Soft Red	White	Durum	Total
	<i>Million bushels equivalents</i>					
1996/97	286	300	140	237	38	1,001
1997/98	362	241	180	205	57	1,045
1998/99	453	247	105	198	40	1,043
1999/00	486	230	170	160	44	1,090
2000/01 ¹	400	230	180	205	50	1,065

¹ Preliminary, June 2001.

Note.—Totals may vary because of rounding.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2-17
Wheat: U.S. exports to eight selected markets and to the world, marketing years 1996/97 to 2000/01

<i>Marketing year beg. June 1—</i>					
Markets	1996/97	1997/98	1998/99	1999/00	2000/01
Quantity (1,000 metric tons)					
Algeria	351	197	526	627	298
Brazil	828	(1)	16	78	53
Colombia	350	405	536	777	607
Guatemala	119	84	57	69	92
Peru	479	208	670	412	396
Philippines	1,254	913	1,098	1,408	1,269
South Africa	387	133	71	122	118
Venezuela	555	558	632	450	575
Subtotal	4,323	2,498	3,606	3,943	3,408
Rest of the world	16,914	20,679	18,952	20,963	20,748
Grand total	21,237	23,177	22,558	24,906	24,156
Value (1,000 dollars)					
Algeria	61,449	31,530	69,869	79,053	53,091
Brazil	161,428	25	1,936	9,003	6,175
Colombia	68,454	57,210	64,795	88,515	70,886
Guatemala	23,634	13,083	7,531	8,653	11,715
Peru	97,185	32,092	86,046	46,971	46,844
Philippines	247,725	156,560	165,008	185,232	160,936
South Africa	75,311	20,542	9,107	15,744	14,638
Venezuela	104,029	89,724	83,966	52,889	70,455
Subtotal	839,215	400,766	488,258	486,060	434,740
Rest of the world	3,268,750	3,237,260	2,533,662	2,567,758	2,618,185
Grand total	4,107,965	3,638,026	3,021,920	3,053,818	3,052,925
Unit value (dollars per metric ton)					
Algeria	175.07	160.05	132.83	126.08	178.16
Brazil	194.96	(2)	121.00	115.42	116.51
Colombia	195.58	141.26	120.89	113.92	116.78
Guatemala	198.61	155.75	132.12	125.41	127.34
Peru	202.89	154.29	128.43	114.01	118.29
Philippines	197.55	171.48	150.28	131.56	126.82
South Africa	194.60	154.45	128.27	129.05	124.05
Venezuela	187.44	160.80	132.86	117.53	122.53
Subtotal	194.13	160.43	135.40	123.27	127.56
Rest of the world	193.26	156.55	133.69	122.49	126.19
Grand total	193.43	156.97	133.96	122.61	126.38

¹ Less than 500 metric tons.

² Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 2-18
Durum wheat, except seed: U.S. exports to eight selected markets and to the world, marketing
years 1996/97 to 2000/01

Markets	Marketing year beg. June 1—				
	1996/97	1997/98	1998/99	1999/00	2000/01
	Quantity (1,000 metric tons)				
Algeria	300	70	183	384	288
Brazil	-	(¹)	-	-	-
Colombia	36	12	-	2	3
Guatemala	-	-	-	8	-
Peru	17	5	32	-	40
Philippines	-	-	(¹)	1	2
South Africa	12	13	13	27	11
Venezuela	62	63	77	7	22
Subtotal	427	163	305	429	366
Rest of the world	557	1,381	1,125	829	1,445
Grand total	984	1,544	1,430	1,258	1,811
	Value (1,000 dollars)				
Algeria	51,301	13,512	27,899	51,325	35,684
Brazil	-	-	-	11	-
Colombia	6,385	1,726	-	289	394
Guatemala	-	-	-	893	-
Peru	3,388	1,430	4,966	145	5,581
Philippines	-	-	36	58	245
South Africa	2,195	2,622	2,107	4,163	1,635
Venezuela	12,604	13,427	11,972	1,037	3,468
Subtotal	75,873	32,717	46,980	57,921	47,007
Rest of the world	120,013	271,342	178,868	118,065	195,291
Grand total	195,886	304,059	225,848	175,986	242,298
	Unit value (dollars per metric ton)				
Algeria	171.00	193.03	152.45	133.66	123.90
Brazil	(²)	(²)	(²)	(²)	(²)
Colombia	177.36	143.83	(²)	144.50	(²)
Guatemala	(²)	(²)	(²)	111.63	(²)
Peru	199.29	286.00	155.19	(²)	139.53
Philippines	(²)	(²)	(²)	58.00	(²)
South Africa	182.92	201.69	162.08	154.19	148.64
Venezuela	203.29	213.13	155.48	148.14	157.64
Subtotal	177.69	200.72	154.03	135.01	128.43
Rest of the world	215.46	196.48	158.99	142.42	135.15
Grand total	199.07	196.93	157.94	139.89	133.79

¹ Less than 500 metric tons.

² Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 2-19
Hard Red Spring, Hard Red Winter, and Soft Red wheat: U.S. exports to eight selected markets
and to the world, marketing year 1996/97 to 2000/01

Markets	Marketing year beg. June 1—				
	1996/97	1997/98	1998/99	1999/00	2000/01
	Quantity (1,000 metric tons)				
Algeria	50	127	344	242	153
Brazil	828	(¹)	16	78	53
Colombia	313	393	536	774	604
Guatemala	119	84	57	61	92
Peru	463	203	638	411	356
Philippines	1,254	913	1,098	1,408	1,266
South Africa	376	120	58	95	107
Venezuela	494	495	552	444	552
Subtotal	3,897	2,335	3,299	3,513	3,183
Rest of the world	16,354	19,297	17,830	20,134	19,163
Grand total	20,251	21,632	21,129	23,647	22,346
	Value (1,000 dollars)				
Algeria	10,148	18,018	41,970	27,729	17,407
Brazil	161,428	25	1,936	8,992	6,175
Colombia	62,068	55,844	64,778	88,225	70,492
Guatemala	23,634	13,083	7,531	7,761	11,715
Peru	93,798	30,662	81,080	46,826	41,263
Philippines	247,725	156,560	164,972	185,174	160,691
South Africa	73,115	17,920	7,000	11,581	13,003
Venezuela	91,424	76,297	71,996	51,851	67,024
Subtotal	763,340	368,409	441,263	428,139	387,770
Rest of the world	3,148,738	2,965,558	2,354,808	2,449,694	2,422,857
Grand total	3,912,078	3,333,967	2,796,071	2,877,833	2,810,627
	Unit value (dollars per metric ton)				
Algeria	202.96	141.87	122.01	114.58	113.77
Brazil	194.96	(¹)	121.00	115.28	116.51
Colombia	198.30	142.10	120.85	113.99	116.71
Guatemala	198.61	155.75	132.12	127.23	127.34
Peru	202.59	151.04	127.08	113.93	115.91
Philippines	197.55	171.48	139.15	131.52	126.93
South Africa	194.45	149.33	120.69	121.91	121.52
Venezuela	185.07	154.14	130.43	116.78	121.42
Subtotal	195.88	157.78	133.76	121.87	121.83
Rest of the world	192.54	153.68	132.07	121.67	126.43
Grand total	193.18	154.12	132.33	121.70	125.78

¹ Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

The transportation and grain merchandising sectors are critical to wheat trade. With the CWB as the central control, the Canadian grain marketing system is based on large on-farm storage (equal to one year's crop), 1,100 primary elevators, and 28 terminal and transfer elevators located mostly on the Pacific coast, at Thunder Bay on Lake Ontario, and on the Saint Lawrence Seaway.³⁸ Since annual production of grain (wheat and barley) can exceed 40 mmt, and the capacity of Canadian primary, terminal, and transfer elevators is about 12 mmt, Canadian farmers are expected to store most production on farm.³⁹

The grain storage at primary elevators is owned primarily by six large entities—three wheat pools (farmer cooperatives), and three large grain companies (Pioneer Grain, Cargill, Ltd., and Louis Dreyfus Company), according to published trade sources, and data of the Canadian Grain Commission.⁴⁰ In the later 1990s, these six companies invested millions of dollars in country elevators, replacing traditional wooden crib structures with 2,000-3,000 metric ton capacity, with steel and concrete “high-throughput” terminals with 20,000 to 40,000 metric ton capacity. The 5,000 wooden crib elevators in Canada in the 1970s have been replaced by 1,000 large steel and concrete facilities, each of which can easily load 50 and 100-unit car trains.⁴¹

The Canadian milling sector is composed of 27 wheat flour mills and 5 Durum mills with a capacity of 187,000 cwt and 20,600 cwt, respectively in 2000.⁴² Most of the Canadian flour and Durum mills are located in Eastern Canada—Ontario and Quebec having 64 percent of wheat flour capacity and 57 percent of Durum capacity, according to data of Milling and Baking News. About one-half of Canadian output of flour and semolina goes directly to the baking, biscuit and breakfast cereal industry that is mainly in eastern Canada. Two U.S. companies own 70 percent of the Canadian milling capacity.⁴³

There has been a sharp increase in the number of mills located in the Prairie provinces as well as some increase in traditional milling centers in eastern Canada.⁴⁴ Some of the increased capacity in the Prairie provinces may be traced to provincial and other government policies designed to increase the export of processed grain products. The CWB also has policies that facilitate or encourage flour milling in Canada, as discussed in Chapter 3.

Canadian assistance programs

Agricultural assistance programs for wheat and other crops in Canada currently includes five components: (1) the National Income Stabilization Account (NISA), (2) crop insurance,

³⁸ Ibid., pp. 20-21.

³⁹ Ibid.

⁴⁰ Stormy Wylie, “Canadian Renaissance,” *World Grain*, June 1999, pp. 7-13.

⁴¹ Ibid., pp. 9-10.

⁴² *Grain and Milling Annual (Milling and Baking News)*, 2000, pp. 70-71.

⁴³ Agriculture and Agri-Food Canada, Grains and Oilseeds Division, *Cereals Sector Profile*, April 1999, p. 17.

⁴⁴ Ibid., p. 16.

(3) province-specific initiatives, (4) disaster assistance, and (5) fall cash advances.⁴⁵ This policy framework, created in 1996 following the elimination of the Western Grain Transportation Act (WGTA) and the Gross Revenue Insurance Program (GRIP),⁴⁶ was discontinued since it did not meet the criteria for GATT green status under the WTO Agreement on Agriculture. Disaster assistance, through the Agricultural Income Disaster Assistance (AIDA) program, was added on a temporary, 2-year basis in 1998, and continued in 2000 under the Canadian Farm Income Program (CFIP). According to the Canadian Government, these core programs formulate a policy that is based on non-commodity-specific economic safety nets.⁴⁷

Similar to the U.S. situation, farm cash receipts derived from grain by Canadian farmers fell continuously during calendar years 1999-2000. According to Statistics Canada, Canadian crop producers saw their receipts fall in 2000 to a six-year low as abundant world supplies resulted in low prices for major grains, including wheat and oilseeds.⁴⁸ For wheat specifically, Statistics Canada noted that marketing of Durum and non-Durum wheat fell by 12.2 percent and 19.5 percent, respectively, below the five year average, owing to reduced deliveries and lower CWB payments.⁴⁹

Table 2-20 shows the trend in direct payments from Federal and Provincial Canadian Government programs for Canada and for the Provinces of Manitoba, Saskatchewan, and Alberta, the provinces in which the CWB has jurisdiction over wheat marketing. The table shows direct payments by program to all producers, including wheat farmers, because the programs shown in table 2-20 are not crop or product specific.

From 1999 to 2000, direct Canadian program payments rose by 42.3 percent to Can\$2.8 billion, the highest level since 1993 and nearly double the previous five-year average. Program payments in 2000 reflected increased expenditures to grain producers in Alberta, Saskatchewan, and Manitoba under programs designed to assist these producers to adjust to the elimination of transportation subsidies at a time of low grain prices. Major Canadian Federal and provincial farm assistance programs benefitting wheat producers in Canada are discussed below.

Federal government assistance programs

National Income Stabilization Act (NISA)

NISA, a voluntary program developed jointly between producers, the Government of Canada and participating provinces, enables participating producers to deposit money

⁴⁵ USDA, FAS, *Can\$5.5 Billion Farm Safety Net Deal for Canada 2000*, GAIN report No. CA0101, July 6, 2000.

⁴⁶ The GRIP was a revenue insurance program for certain eligible crops that provided both crop and revenue insurance to participating Canadian farmers.

⁴⁷ Canadian Embassy, hearing submission, June 5, 2001, p. 9.

⁴⁸ Statistics Canada, *Farm Cash Receipts January-December 2000*, No. 21-001-XIB, vol. 61, No. 4, p. i.

⁴⁹ *Ibid.*, p. iii.

Table 2-20
Canada: Direct farm program receipts, total Canada and selected provinces, 1997 to 2000

Country/ province	Program receipts							Program receipts share ¹ Percent
	NISA ²	Crop insurance	Income disaster	Provincial stabilization	Dairy subsidy	Other	Total	
	Can\$million							
Canada:								
1997	153.3	373.8	(³)	(⁴)	146.6	265.4	1,111.0	3.7
1998	268.7	374.2	(³)	508.4	132.1	130.3	1,413.7	4.7
1999	444.9	308.0	340.5	557.1	103.7	209.2	1,963.5	6.4
2000	456.2	592.5	425.7	418.3	72.7	829.1	2,794.6	8.6
Alberta:								
1997	22.8	95.1	(³)	(⁴)	9.1	90.7	217.7	3.4
1998	38.3	122.6	(³)	(⁴)	7.7	66.5	235.1	3.7
1999	65.7	74.8	82.1	(⁴)	6.6	2.6	231.7	3.6
2000	71.9	149.6	158.5	(⁴)	4.2	315.2	699.3	9.5
Manitoba:								
1997	20.1	38.6	(³)	(⁴)	4.5	78.8	142.0	4.6
1998	29.7	45.3	(³)	(⁴)	4.0	13.2	92.1	3.1
1999	58.3	35.5	42.2	(⁴)	3.1	72.7	211.7	7.1
2000	61.6	71.1	45.1	(⁴)	2.2	104.5	284.5	9.1
Saskatchewan:								
1997	65.1	135.3	(³)	(⁴)	3.4	61.7	265.5	4.4
1998	105.1	126.7	(³)	(⁴)	2.7	1.4	236.0	4.2
1999	187.8	151.6	113.6	(⁴)	2.3	12.3	467.5	8.6
2000	186.7	210.1	108.6	(⁴)	1.6	268.7	775.7	13.4

¹ Share of total farm cash receipts from all crops and livestock.

² NISA withdrawals from the government portion of the account.

³ Program not in operation.

⁴ Applicable to Prince Edward Island, Nova Scotia, and Quebec only.

Note.—Totals may not add due to rounding.

Source: Statistics Canada, *Farm Cash Receipts*, 61, No. 4, January-December 2000.

annually into NISA accounts and receive matching government contributions. In lower income years, producers can make withdrawals from the funds they have set aside with the objective of stabilizing income, irrespective of the commodities they produce. Generally, all agricultural commodities, except those covered by supply management (dairy, poultry and eggs) are covered by NISA.

Crop Insurance

This program provides production risk protection to producers by minimizing the economic effects of crop losses caused by natural hazards. The program is a provincially-delivered program whereby federal financial contributions are made to provincial crop insurance schemes. This cost-shared program stabilizes a farmer's income by minimizing the

economic effects of crops losses from natural hazards, such as drought, flood, hail, frost, excess moisture and insects, thus reducing the risk involved in farming.⁵⁰

Disaster assistance

The Agricultural Income Disaster Assistance (AIDA) program was a two-year national program implemented in December 1998 to provide assistance to producers facing dramatic income declines as a result of factors beyond their control. Under this program, coverage was provided when a producer's gross margin in the claim year fell below 70 percent of his historical 3-year average gross margin. In early 2000, Canada announced that it would implement the Canadian Farm Income Program (CFIP) to replace AIDA. The CFIP is in place for the 2000, 2001, and 2002 tax years and is cost-shared on a 60/40 basis by federal and provincial governments. A total of Can\$2.2 billion will be available to producers over the 3 years of the program.⁵¹ The CFIP also includes a provision for interest-free farm cash advances up to Can\$20,000 per eligible farm to help pay spring seeding costs.

Advance Payments Program (APP)

The APP provides cash advances with an interest-free feature on the first Can\$50,000 loan to producers to store crops after harvest allowing them to market the crops later in the season.

There is an overall limit of Can\$250,000 per producer for crops, and the advance guarantee rate cannot exceed 50 percent of the expected average farm gate price of the crop year.⁵² The provisions of the APP were previously included under the Prairie Grain Advance Payments Act (PGAPA) which covered wheat and barley in the designated areas of the CWB and the Advance Payment for Crops Act, which covered all other crops produced across the country. For wheat and barley growers, the program is accessible through the CWB, as well as other producer organizations. Advances are repaid as crops are sold, either by deduction from CWB initial payments or by cash. The PGAPA provides a federal guarantee on the funds advanced and associated interest costs.

Provincial assistance programs

Alberta Farm Income Assistance Program (AFIAP)

The Alberta Government announced a one-time Can\$145 million assistance package for farmers in March 2000 to help Alberta farmers offset falling income resulting from the combination of low commodity prices, increases in rail freight costs, higher fertilizer costs,

⁵⁰ AAFC, Crop Insurance, found at www.agr.ca/progser/ci_e.phtml, retrieved June 21, 2001.

⁵¹ USDA, FAS, Canada Agricultural Situation New Canadian Farm Aid Program 2000, GAIN Report No. CA0003, Jan. 14, 2000.

⁵² AAFC, Advance Payments Program (APP), found at www.agr.ca/progser/app_e.phtml, retrieved June 21, 2001.

and adverse weather.⁵³ The program included a per acre payment of Can\$4.29 for eligible arable acres, a credit to all producers purchasing all-risk crop insurance for the 2000 crop year, as well as other initiatives. In April 2001, the Alberta Government continued this program by announcing that provincial producers would be eligible for an assistance package of Can\$10.29 per arable acre, with the provincial cost partially offset by Alberta's Can\$126.8 million portion of a Federal agriculture assistance package announced in March 2001.⁵⁴

Canada-Manitoba Adjustment Program (CMAP)

This program was created in February 2000 as part of a Can\$400 million assistance program providing, on a one-time basis, help for grain and oilseed farmers in Saskatchewan and Manitoba to adjust to higher transportation costs in the face of continuing low farm incomes. Of this amount, Can\$100 million was designated for eligible Manitoba producers. This program has been continued into 2001 with Can\$92 million of assistance being provided.⁵⁵

Canada-Saskatchewan Adjustment Program

One-time assistance of Can\$300 million, including Can\$260 million in direct payments and Can\$40 million in provincial initiatives, was directed toward Saskatchewan grain, oilseed, and specialty crop producers in 2000. The program was extended in 2001 with a further Can\$200 million provided to these producers starting in May 2001.⁵⁶

Trade programs

Varietal registration

An intrinsic control mechanism related to the CWB operations and trade in U.S.-Canadian wheat are the phytosanitary, varietal registration, and end use certificates (EUC) measures, in part administered by the CWB and by other arms of the Canadian Government, the Canadian Food Inspection Agency and the Canadian Grain Commission (CGC).⁵⁷ Although the stated purpose of these laws and regulations is to insure the homogeneity of wheat sold within Canada and the exclusion of foreign plant diseases, the practical effect of these

⁵³ Western Canadian Wheat Growers Association, NEWS Release, Mar. 14, 2000, New Alberta Farm Money Welcomed" found at http://lwww.wcwga.ca/news/news_mar_14_2000.html, retrieved July 31, 2001.

⁵⁴ Government of Alberta News Release, Farmers to receive Can\$10.29 per acre, Apr. 27, 2001, found at <http://lwww.gov.ab.ca/acn200104/10587.html>, retrieved July 31, 2001.

⁵⁵ AAFC News Release, Canada-Manitoba Adjustment Program 2 Fact Sheet, June 11, 2001, found at <http://www.agr.ca>, retrieved Aug. 2, 2001.

⁵⁶ NDP Caucus, "400 Million in Farm Assistance Payments," <http://lndpcaucus.sk.ca/topics/read.php3/234.html>, Saskatchewan NDP articles, retrieved Aug. 3, 2001.

⁵⁷ Government of Canada submission to the Commission and USTR, June 5, 2001, pp. 11-12.

measures has been the virtual exclusion of U.S. wheat (except for small amounts of feed wheat destined to feed lots).

Although the position of the Canadian Government is that U.S. wheat can “freely enter Canada,”⁵⁸ Commission staff interviews with U.S. wheat exporters to Canada indicated that U.S. exports of wheat to Canadian mills or elevators are difficult, burdensome, and infrequent.⁵⁹ The excessive paperwork and regulatory review by Canadian officials⁶⁰ that require carefully orchestrated on-site inspections by the CGC to prevent “commingling of Canadian and U.S. wheat” effectively create a prohibitive nontariff barrier to U.S. milling-grade wheat entering Canada for consumption there.

Canada’s system for the registration of new wheat classes is strictly controlled by the CWB and the CGC, and it is alleged that Canada will not register many commercially valued U.S. classes under this system.⁶¹ According to the domestic industry, this results in top quality milling wheat from the United States being legally sold in Canada as “feed wheat” at a sharp discount to Canadian milling-grade wheat.⁶² The Canadian Government, on the other hand, argues that Canada’s varietal registration program is a key element of its quality assurance program and it is compatible with an open trade system.⁶³

The Canadian Government also indicated that its varietal registration process for grains is open to all varieties from any part of the world.⁶⁴ Varietal registration in Canada is based on Kernel visual distinguish ability (KVD), which is unique to Canada.⁶⁵ An important feature of KVD is that different classes of grain have to look different from one another, and all specific varieties within a class must look like the standard for that class.⁶⁶ This system of quality assurance is based on meeting a predetermined set of uniform standards. An alternative to KVD would be an identity preserved system (IPS), as is used in the United States, which is based on functional, as opposed to physical, characteristics. However, the CWB has argued that the IPS will not ensure consistent quality and Canadian producers would thus lose a major marketing advantage over U.S. producers.⁶⁷

Canada’s KVD-based registration system results in a high rejection rate of new varieties,⁶⁸ and very few new varieties have been introduced in Canada in recent years. In Western

⁵⁸ Government of Canada, Embassy of Canada, submission to the Commission of June 5, 2001, pp. 2-3; and submission to the Commission, July 11, 2001, pp. 4-5.

⁵⁹ Commission interviews in North Dakota, June 18-19, 2001.

⁶⁰ NDWC, posthearing brief, June 18, 2001, appendix 4.

⁶¹ *Ibid.*, pp. 25-26.

⁶² *Ibid.*

⁶³ Canadian Embassy, hearing submission.

⁶⁴ Canadian Embassy, posthearing brief, July 11, 2001.

⁶⁵ CGC, *Western Canada’s Wheat Quality Control System: Future Directions*, July 2000, found at <http://www.cgc.ca>, retrieved Aug. 13, 2001.

⁶⁶ *Ibid.*

⁶⁷ CGC News Release, *CGC and CWB Take Joint Position on WGMP Recommendation*, Aug. 8, 1996.

⁶⁸ AAFC *Visions of Growth: Policy Implications for the 2004/05 Crop Year*, found at <http://agr.ca/policy/epad>, retrieved, Aug. 16, 2001.

Canada, for example, 80 percent of CWRS production comes from only seven varieties.⁶⁹ Although non-registered varieties of wheat may be produced in Canada, there are financial disincentives for their production. Non-registered wheat varieties are not eligible for milling grades and can be graded no higher than Canada Feed Wheat or No. 5 Canada Western Amber Durum.^{70, 71}

End-use certificates (EUC)

The EUC is part of Canada's system of grain quality and, according to the Government of Canada, its purpose is to ensure that imported wheat is not commingled with domestic wheat before it reaches the end-user.⁷² The requirement is waived for Canadian imports of denatured wheat consigned to a farm for use as livestock or poultry feed. Canada established the EUC in 1991, as part of the CFTA, following elimination of import permit requirements⁷³ for U.S. wheat, instead reserving the right to require EUCs for U.S. wheat imports destined for processing.⁷⁴ Under the CFTA, Canadian processors request the EUC from the CGC, which is obligated to make EUCs easily available and at no charge.⁷⁵ Grain imported into Canada under a EUC must be consumed at the facility named as the consignee on the EUC.⁷⁶

The domestic industry has raised concerns that EUCs discourage Canadian imports of U.S. wheat and that EUCs are used in Canada as a tool through which the CWB maintains its supply monopoly.⁷⁷ In contrast, the Canadian Government argues that both the U.S. and Canada require completion of EUCs for wheat imports, they are freely available, and that any Canadian miller⁷⁸ may import U.S. wheat.⁷⁹ EUCs were instituted in the United States

⁶⁹ CGC, *Western Canada's Wheat Quality Control System*, p. 3.

⁷⁰ According to the CWB, strict control over varietal registration within CWB-designated areas is required to prevent misrepresentation of grain. Otherwise, as noted by the CWB, when the spot price in the United States is above the CWB initial payment rate CWB wheat for sale will be represented as a non-registered variety. Similarly, when the CWB forecast price is higher than the U.S. spot price, non-registered varieties will be represented as registered to sell within the pool. CGC News Release, *CGC and CWB Take Joint Position on WGMP Recommendation*.

⁷¹ Section 105 of the Canada Grain Act prohibits the use of any grade name established in Canada in dealing or handling any grain that does not possess the characteristics of grain of that grade, or the use of any name, or name and number, resembling any grade name as to be calculated or likely to cause confusion with that grade name.

⁷² Canadian Embassy, prehearing brief, June 5, 2001, p. 2.

⁷³ Prior to 1989, the importer of foreign wheat was required to obtain an import permit or license for a fee, the granting of which was at the discretion of the CWB.

⁷⁴ In the CFTA it was agreed that Canada would eliminate its import license requirement for wheat and barley when Canada's domestic support levels for those commodities were equal to or greater than the U.S. levels.

⁷⁵ Provision for EUCs is contained in paragraph 46(b.1) of the Canadian Wheat Board Act and in subsection 87.1(1) of the Canada Grain Act. According to the Canada Grain Act, EUCs are submitted to persons employed in the administration or enforcement of the Customs Act for forwarding to the CGC.

⁷⁶ Section 105.1 of the Canada Grain Act.

⁷⁷ North Dakota Wheat Commission, posthearing brief, June 18, 2001, pp. 26-27.

⁷⁸ According to the Canadian Wheat Board Regulations (Section 15.1), any person may import U.S. wheat into Canada provided they obtain an EUC declaring that the wheat is imported
(continued...)

following legislation by Congress requiring EUCs on products imported from countries that have EUC requirements for U.S. exports.

Wheat Access Facilitation Program

This program was instituted in January 1999 to enhance opportunities to sell U.S. wheat directly to primary elevators in Canada.⁸⁰ This program established rules for sellers and producers of U.S. wheat produced in eligible states (currently Montana and North Dakota) to move wheat by truck directly to western Canadian country elevators for resale or transshipment.⁸¹ Under the program, a seller must obtain a phytosanitary certificate for the wheat, arrange for its sale to a participating Canadian country elevator in Manitoba, Saskatchewan, and Alberta, ship the wheat to the Canadian border, follow completion of the normal Customs requirements, and deliver to the elevator. All purchases under the program are made by Canadian elevator operators who negotiate sales contracts with U.S. sellers.

The posthearing submission by the U.S. industry indicated that this program is not in use because of a number of obstacles and barriers.⁸² Among the problems noted are CGC authorization for shipments based on assurance that the U.S. and Canadian wheat will not be commingled, the need for a CGC representative to be available at the elevator to monitor the unloading of the grain into bins, with expenses for late, delayed, or no show shipments charged to the elevator operator, and failure to comply possibly resulting in revocation of the elevator's license, prosecution, or refusal by the CGC for the facility to receive future shipments of U.S. wheat.⁸³

Information from both the Canadian Embassy and the North Dakota Department of Agriculture indicates that this program has not been successful in increasing U.S. access to the grain handling and consumption system in Canada. In its posthearing submission, the Canadian Embassy reported that participating Canadian elevator operators have received no inquiries from U.S. producers about participation in the program.⁸⁴ The North Dakota Department of Agriculture expressed concerns about restrictive phytosanitary certification, and also indicated that the program had been cancelled.⁸⁵ North Dakota grain elevator

⁷⁸ (...continued)

for consumption in Canada and is consigned directly to a milling, manufacturing, brewing, distilling or other processing facility for consumption at that facility.

⁷⁹ Canadian Embassy, hearing submission, p. 2.

⁸⁰ FAS online, *The Canadian Wheat Access Facilitation Program*, found at <http://www.fas.usda.gov>, retrieved June 28, 2001.

⁸¹ Wheat sold to Canadian elevators under this program can be sold into domestic Canadian markets or exported.

⁸² North Dakota Wheat Commission, posthearing brief, June 18, 2001, pp.28-29.

⁸³ Ibid.

⁸⁴ Canadian Embassy, posthearing submission, July 11, 2001, p. 4.

⁸⁵ North Dakota Wheat Commission, posthearing brief, June 28, 2001, App. 9.

operators indicated that burdensome Canadian regulations thwarted sales to Canadian wheat mills or to Canadian elevators.⁸⁶

In-transit movement of grain by rail

The In-transit program permits shipments of U.S. wheat and other grains, excluding seed, to transit through Canada based on a certificate of origin (developed by the Canadian Food Inspection Agency) in lieu of a phytosanitary certificate.⁸⁷ The program allows U.S. grain to be shipped on the Canadian rail system to final destinations in the United States. In 2000, approximately 700,000 metric tons were shipped under this program, up from 650,000 metric tons in 1999.⁸⁸

Export licenses

The CWB is charged with regulating the export of wheat and wheat products from Western Canada. The CWB may grant a license for the export, sale or purchase for delivery outside Canada of wheat and wheat products if:⁸⁹

- the export, sale or purchase of the grain or products for which the license is sought does not adversely affect the marketing by the CWB, in interprovincial or export trade, of grain grown in Canada; and
- the applicant pays to the CWB a sum of money that, in the opinion of the CWB, represents the pecuniary benefit ensuring to the applicant pursuant to the granting of the license, arising solely by reason of the prohibition of the export of that grain or those products without a license, and the then existing differences between the prices of that grain or those products inside and outside Canada.

The CWB may grant a license for the transportation of wheat and wheat products in interprovincial trade, or for the sale or delivery anywhere in Canada, of wheat, or wheat products, but no fee is charged for such a license.⁹⁰

The issue of export licenses has often been raised in the context of the “buy-back” program discussed in Chapter 3. Some farmers in Canada have complained about the prices the CWB charges them when they want to do a “buy-back” in order to sell to a domestic miller or obtain an export license.⁹¹ The allegation has been that the buy-back price is set arbitrarily high in order to discourage exports or sales to millers by anyone other than the CWB. Concerns have been raised that under the current arrangement the CWB can give

⁸⁶ Commission staff interviews, June 18-20, 2001.

⁸⁷ FASonline, *In-Transit Movement of Grain by Rail*, found at <http://www.fas.usda.gov>, retrieved June 28, 2001.

⁸⁸ Canadian Embassy, posthearing brief, July 11, 2001, p. 5.

⁸⁹ Canadian Wheat Board Regulations.

⁹⁰ Ibid.

⁹¹ Centre for Prairie Agriculture, *A Price You Can't Refuse*, Weekly Commentaries, Sept. 7, 1998, found at <http://www.prairiecentre.org>, retrieved Aug. 13, 2001.

discounts to foreign buyers and charge premium prices to farmers who “buy-back” their grain.⁹²

Export credit sales

The CWB grants export credits under two programs: the Credit Grain Sales Program (CGSP) and the Agri-food Credit Facility (AFCF). The CGSP permits the sale of wheat through eligibility determined by the CWB and the Canadian Government, and consists of a “sovereign guarantee of repayment from their central bank or ministry of finance.” The loan must be repaid within 36 months and is subject to interest. Risk is assumed by the Government of Canada which “guarantees payment of principal and interest.”⁹³

Established in 1995/96 as an adjustment measure in response to the elimination of the WGTA freight subsidies, the AFCF provides credit for the sale of grain through accredited exporters. The Canadian Government assumes the risk of the guaranteed repayment of “a declining percentage of the receivables,” and the CWB the remaining risk. Prior to the Asian crisis, the AFCF had been used only once.

In some cases, commercial banks in Canada participate in both of the previously mentioned programs by granting credit and thus assuming the risks. In other instances the CWB extends the credit “under guarantee of repayment provided by a commercial bank.”⁹⁴ Table 2-21 provides current data regarding export credit sales of Durum and non-Durum wheat in Canada.

Canadian production, consumption and stocks

Production of all types of wheat in Canada declined 10 percent from 30 mmt to 27 mmt during 1996/97 to 2000/01 (tables 2-22 and 2-23); production declined as the area harvested fell respectively by about 1 million hectares and yields remained unchanged (table 2-23). Non-Durum Canadian wheat production (largely Canadian HRS wheat) declined by 16 percent in this period (table 2-22). Unlike the lower production of Canadian HRS wheat, Canadian production of Durum wheat rose from about 4.6 mmt to 5.6 mmt during the five years or about 22 percent (table 2-22).

Canadian consumption of wheat was unchanged during 1996/97 and 2000/01 at about 8.2 mmt annually (table 2-22). Ending stocks of wheat in Canada nearly doubled in this period to 8.1 mmt in 2000/01.

⁹² Ibid.

⁹³ The Canadian Wheat Board, *Annual Report*, 1999/2000, p. 43

⁹⁴ Ibid., p. 44

Table 2-21
Canadian wheat: Exports under credit arrangements, marketing years 1995/96 to 1999/2000

Country	Year				
	1995/96	1996/97	1997/98	1998/99	1999/2000
	<i>Thousand metric tons</i>				
Brazil	264	89	89	92	19
Chile	-	-	-	11	-
Cuba	-	-	-	10	60
Indonesia	-	-	55	394	702
Iran	806	743	1,892	449	2,931
Korea, South (ROK)	-	-	60	98	-
Mexico	-	-	-	-	104
Pakistan	-	47	196	150	-
Peru	-	-	-	131	211
Total	1,070	879	2,292	1,335	4,027

Source: The Canadian Wheat Board 1999/2000 Statistical Tables.

Table 2-22
Canadian wheat: Production, imports, exports, consumption, and ending stocks, marketing years 1996/97 to 2000/01

Marketing-year beginning August 1-	Production					Consumption	Ending stocks
	Durum	Non-Durum	Total	Imports	Exports		
	<i>Million metric tons</i>						
1996/97	4.6	25.2	29.8	0.2	19.5	8.2	4.3
1997/98	4.4	19.8	24.2	0.1	21.3	7.3	6.0
1998/99	6.0	18.1	24.1	0.2	14.4	8.1	7.4
1999/00	4.3	22.6	26.9	0.2	19.4	8.0	7.4
2000/01 ¹	5.6	21.2	26.8	0.2	18.0	8.2	8.1

¹ Projected as of June 2001.

Source: Compiled from official statistics of the U.S. Department of Agriculture, and the International Grains Council.

Table 2-23
Canadian wheat: Area harvested, production, and yield, marketing years 1996/97 to 2000/01¹

Marketing-year beginning August 1-	Area harvested	Production	Yield
	(Million hectares)	(Million metric tons)	(Metric tons per hectare)
1996/97	12.3	29.8	2.4
1997/98	11.4	24.2	2.1
1998/99	10.8	24.1	2.2
1999/00	10.4	26.9	2.6
2000/01 ¹	11.0	26.8	2.4

¹ Preliminary June 2001.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Canadian imports and Canadian exports

Canadian imports

Canadian imports of wheat (much of which is wheat flour or milled wheat in the form of baked goods) averaged about 200,000 metric tons annually during 1996/97 to 2000/01 (table 2-22), according to data of the USDA. Reported U.S. exports to Canada of all types of unmilled wheat (except seed for planting and White wheat) fell from about 1,100 metric tons in 1996/97 to about 240 metric tons (valued at less than \$50,000) in 2000/01.⁹⁵

Canadian exports

During marketing years 1996/97 to 2000/01, Canadian wheat exports to all countries fluctuated between 14 and 21 mmt annually, amounting to 18 mmt in 2000/01 (table 2-22). Canadian non-Durum wheat, exports to the eight markets under consideration in this study rose from 2.2 mmt to 2.7 mmt during calendar years 1996 to 2000; as a share of non-durum wheat exports, the eight countries' combined share rose irregularly from 16 to about 18 percent (table 2-24). The most noteworthy increases in exports of non-Durum Canadian wheat included a 479,000 metric ton increase to the Philippines, a 375,000 metric ton increase to Peru, and a 208,000 metric ton rise to Guatemala. Offsetting these gains was a 862,000 metric ton loss of sales to Brazil.

Canadian exports of non-Durum wheat to the United States rose from 1.1 mmt to 1.6 mmt during 1996 to 2000 or by about 47 percent, according to official U.S. data.⁹⁶ The U.S. market for non-Durum wheat was more important for Canada than any of the eight foreign markets under consideration.

Canadian Durum wheat exports to the eight countries rose from 1.3 mmt to 2.0 mmt or by nearly 50 percent (table 2-25). Most of the 672,000 ton increase in Durum exports resulted from a 533,000 metric ton rise in exports to Algeria, and a 120,000 metric ton increase to Venezuela. Canadian exports of Durum wheat to the United States rose from 250,000 to 291,000 metric tons.⁹⁷ Algeria—the largest in the world—was far more important to Canadian exporters than the U.S. market for Durum, but about the same size as Venezuela.

⁹⁵ According to official data of the U.S. Department of Commerce.

⁹⁶ Based on U.S. import data, compiled from official statistics of the U.S. Department of Commerce.

⁹⁷ Ibid.

Table 2-24

Canadian wheat, except Durum: Canadian exports to eight selected markets, the United States, and the world, 1996 to 2000

Markets	1996	1997	1998	1999	2000
Quantity (metric tons)					
Algeria	-	550,000	25,368	-	-
Brazil	984,329	795,758	364,607	152,209	122,443
Colombia	432,704	508,523	600,775	327,237	483,254
Guatemala	93,530	163,656	351,678	338,169	302,146
Peru	59,845	513,044	252,805	196,600	434,678
Philippines	121,539	459,301	348,235	398,558	600,875
South Africa	53,601	170,276	257,115	112,600	206,705
Venezuela	429,730	462,975	372,343	440,980	514,457
Subtotal	2,175,278	3,623,533	2,572,926	1,966,353	2,664,558
United States	767,143	1,751,760	1,537,913	1,547,533	1,538,960
Rest of the world	10,396,562	13,356,278	8,591,569	8,474,573	10,993,192
Grand total	13,338,983	18,731,571	12,702,408	11,988,459	15,196,710
Value (Can\$)					
Algeria	-	119,067,000	5,396,789	-	-
Brazil	287,276,750	174,360,200	78,740,516	32,063,946	23,176,932
Colombia	119,293,464	112,721,528	129,603,469	69,345,358	91,495,363
Guatemala	26,421,708	36,373,311	74,724,505	71,463,344	57,850,332
Peru	16,808,731	112,848,567	54,316,538	41,457,544	82,337,058
Philippines	33,956,042	101,619,390	75,845,895	84,629,508	113,277,221
South Africa	14,947,429	37,092,200	55,218,841	24,259,970	38,283,086
Venezuela	119,529,204	101,572,788	80,762,130	92,669,632	97,678,982
Subtotal	618,233,328	795,654,984	554,608,683	415,889,302	504,098,974
United States	189,282,000	296,136,000	316,717,000	294,866,000	292,039,690
Rest of the world	2,868,945,151	3,040,554,297	1,855,419,002	1,755,229,817	2,080,570,257
Grand total	3,676,460,479	4,132,345,281	2,726,744,685	2,465,985,119	2,876,708,921
Unit value (Can \$ per metric ton)					
Algeria	-	216.49	212.74	-	-
Brazil	291.85	219.11	215.96	210.66	189.29
Colombia	275.69	221.66	215.73	211.91	189.33
Guatemala	282.49	222.25	212.48	211.32	191.46
Peru	280.87	219.96	214.86	210.87	189.42
Philippines	279.38	221.25	217.80	212.34	188.52
South Africa	278.86	217.84	214.76	215.45	185.21
Venezuela	278.15	219.39	216.90	210.14	189.87
Subtotal	284.21	219.58	215.56	211.50	189.19
United States	246.74	169.00	205.94	190.54	189.26
Rest of the world	275.95	227.65	215.96	207.12	189.26
Grand total	275.62	220.61	214.66	205.70	189.30

Source: Compiled from official statistics of Statistics Canada.

Table 2-25
Canadian Durum wheat: Canadian exports to eight selected markets, the United States, and the world, 1996 to 2000

Markets	1996	1997	1998	1999	2000
Quantity (<i>metric tons</i>)					
Algeria	1,014,484	1,602,204	1,702,661	1,625,038	1,547,141
Brazil	5,498	40,894	10,371	7,348	10,998
Colombia	-	3,984	77,687	2,499	9,913
Guatemala	6,192	13,873	11,736	26,756	12,222
Peru	66,502	188,404	100,462	151,006	77,658
Philippines	-	-	-	-	-
South Africa	13,198	-	-	-	-
Venezuela	228,853	233,951	212,631	301,427	349,328
Subtotal	1,334,727	2,083,310	2,115,548	2,114,074	2,007,260
United States	247,749	431,077	435,854	640,441	290,684
Rest of the world	1,648,626	1,928,044	1,439,978	1,415,921	1,234,130
Grand total	3,231,102	4,442,431	3,991,380	4,170,436	3,532,074
Value (<i>Can\$</i>)					
Algeria	317,734,823	447,104,143	485,091,482	366,533,160	352,264,549
Brazil	1,768,212	10,928,802	2,354,009	1,651,683	2,485,878
Colombia	-	1,096,397	21,718,982	586,415	2,268,857
Guatemala	1,943,050	3,618,833	3,291,314	6,002,373	2,823,810
Peru	19,197,688	53,590,355	27,905,806	33,878,949	17,669,914
Philippines	-	-	-	-	-
South Africa	4,141,532	-	-	-	-
Venezuela	68,756,651	62,737,164	59,383,452	67,484,130	79,719,144
Subtotal	413,541,956	579,075,694	599,745,045	476,136,710	457,232,152
United States	78,772,000	124,008,000	121,404,000	135,580,822	68,316,682
Rest of the world	486,033,920	531,267,830	405,319,823	318,963,364	282,422,902
Grand total	978,347,876	1,234,351,524	1,126,468,868	930,680,896	807,971,736
Unit value (<i>Can\$ per metric ton</i>)					
Algeria	313.20	279.06	284.90	225.55	227.69
Brazil	321.61	267.25	226.98	224.78	226.03
Colombia	-	275.20	279.57	234.66	228.88
Guatemala	313.80	260.85	280.45	224.34	231.04
Peru	288.68	284.44	277.78	224.36	227.54
Philippines	-	-	-	-	-
South Africa	313.80	-	-	-	-
Venezuela	300.44	268.16	279.28	223.88	228.21
Subtotal	309.83	277.96	283.49	225.22	227.79
United States	317.95	287.67	278.54	211.70	235.02
Rest of the world	294.81	275.55	281.48	225.27	228.84
Grand total	302.79	277.86	282.23	223.16	228.75

Source: Compiled from official statistics of Statistics Canada.

CHAPTER 3

KEY FACTORS AFFECTING COMPETITION BETWEEN THE UNITED STATES AND CANADA

This chapter focuses mainly on the effect of rail transportation and rail rates on U.S.-Canadian wheat flows, and CWB marketing programs and practices. Exchange rates and maritime shipping costs are also outlined.

Transportation

Wheat is transported by a variety of modes. From the farm, wheat is trucked to an elevator, where it is stored for days, weeks, or months. Then it is loaded onto a railroad hopper car that takes it either directly to a miller or to a port for shipment abroad via ocean-going vessel. Transportation is an important part of wheat marketing for at least two reasons. First, the way railroads and other transport networks are laid out and administered affects the competitiveness of different producing countries or regions within a country.¹ Second, transport costs make up as much as one-third of the total delivered cost of a shipment of wheat. In Canada, transportation issues take on added significance because of physical barriers between heavily export-dependent grain producers and ports: on the Pacific side, the Rocky Mountains and their “treacherous” passes, and to the East, the St Lawrence Seaway, which is ice-bound for 3-4 months of the year.²

Rail networks

Rail and maritime shipping are the two most important wheat transport modes. In both the United States and Canada, almost all wheat, whether for domestic or export destinations, makes its inland travel by rail. In addition, wheat traded between NAFTA partners generally is shipped by rail (or by truck for short distances).³ U.S. exports out of ports along the Gulf of Mexico may also make part of their trip by barge down the Mississippi River system. Non-NAFTA exports by both countries travel by ocean-going vessel.

Competition with other transport modes has put pressure on rail transport in both the United States and Canada, leading to a trend toward deregulation of rates that had for many decades

¹ Several U.S. industry representatives, from producing as well as milling businesses, interviewed by Commission staff during June 2001, indicated railroad competition and the layout of rail systems affects costs and the competitiveness of wheat producers and processors.

² The Hon. Willard Z. Estey, “Grain Handling and Transportation Review: Final Report” (the “Estey Report”), submitted to the Minister of Transport, Dec. 21, 1998, ch. 1.

³ Trucking systems within the United States and Canada are essentially the same, posing no material competitive advantage to one nation’s industry or the other; therefore, trucking is not discussed further in this chapter.

been kept low to assist in rural development and other goals. Although bulk goods such as grain continue to be more efficiently transported by rail than by truck, truck competition has put pressure on railroads in the transport of other commodities, making them less able to afford to carry grain at reduced rates.

United States

U.S. rail services for wheat and other grains are provided primarily by Union Pacific (UP) and Burlington Northern Santa Fe (BNSF), the two largest U.S. freight railroad companies.^{4, 5} Two other large rail companies, CSX and Norfolk Southern, operate mainly in the Eastern United States and are therefore less important in wheat transport.^{6, 7} A substantial amount of U.S. wheat traffic is also accounted for by Canadian National Railway (see below), which owns a number of U.S. railroads.

There are extensive railway networks across the northern Great Plains States, serving wheat millers in domestic markets and connecting to ports in the Pacific Northwest and Gulf of Mexico regions (see figure 3-1). However, in contrast to the Canadian system, the layout of the U.S. rail system seems better suited for supplying major domestic markets, such as Chicago and Kansas City, rather than ports. While major grain ports are served, there are significant U.S. grain producing areas that do not have a direct line to such ports. Rather, their shipments must in many cases go through metropolitan hubs before being redirected to coastal ports.

U.S. rail networks with Mexico may have also affected U.S. wheat industry performance. Trade liberalization under NAFTA and the ongoing privatization of Mexico's rail industry⁸ have encouraged links between U.S. and Mexican rail networks, which helps reduce the costs of U.S. grain transport to Mexico.⁹

Canada

Transportation networks of greatest importance to the wheat industry in Canada are the rail lines operated by Canadian National Railway (CN) and Canadian Pacific Railway (CP) (see

⁴ Firms ranked by 2000 revenues, as reported in their respective Annual Reports.

⁵ The UP and BNSF earn 14 percent of their rail revenue from agricultural products.

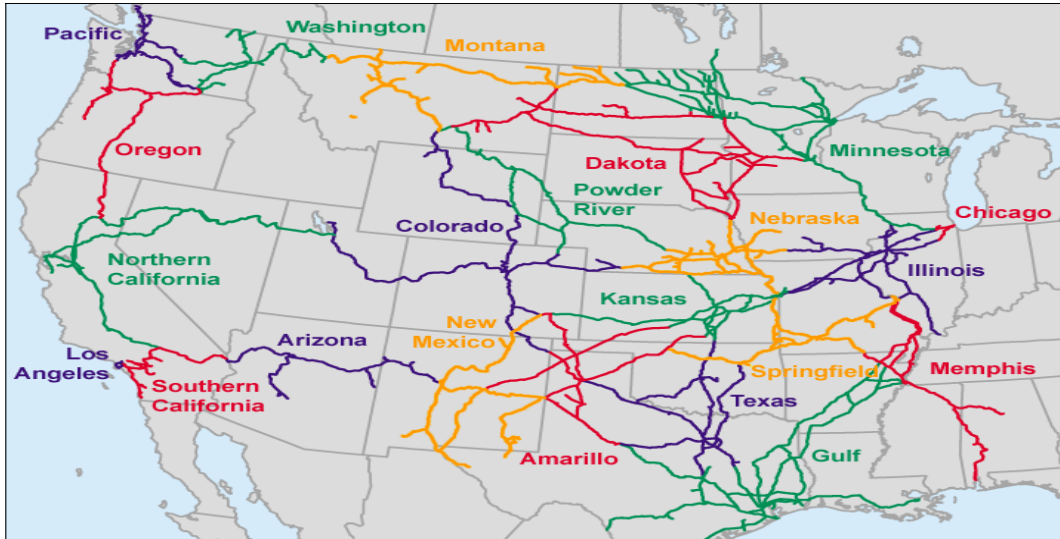
⁶ Both railroads, according to their Annual Reports, earn less than 10 percent of their rail revenue from "agricultural products" as a whole, and what grain they ship is mainly destined for animal-feed mills.

⁷ A fifth eastern U.S. freight company, Conrail, privatized in 1987, has since 1997 been jointly owned and operated by CSX and Norfolk Southern.

⁸ Such privatization has reportedly been spurred by a desire to eliminate inefficiencies and to take advantage of economies of scale. Mercer Management Consulting, "Myths and realities of rail access and competitive issues," Railway Association of Canada, 1998.

⁹ As discussed below, this potentially helps Canada as well, to the extent that Canadian-owned U.S. railroads can link to Mexican railroads. However, industry sources have told Commission staff that they believe the greater effects on wheat are on U.S. exports to Mexico, which in turn, open up U.S. markets to additional Canadian exports.

Figure 3-1
Network maps of Burlington Northern Santa Fe and Union Pacific
railroads



Sources: Company websites: <http://www.bnsf.com> and <http://www.uprr.com>.

figure 3-2). In addition, there are several “short line” railroads and, on the export side, a maritime shipping system.

Both CN and CP are previously state-owned enterprises that were privatized during the 1990s. Although they dominate Canadian rail transportation, neither is larger (by gross revenues) than the fourth largest U.S. railroad.¹⁰

CN provides freight transport services to a wide variety of industries, from agriculture to automobiles. The company earned 22 percent of its 2000 freight revenue from agricultural commodities (mostly grains).¹¹ CN also has a major presence in the United States, thanks mainly to its acquisition of Illinois Central in 1998. This acquisition gave CN direct access to ports along the Gulf of Mexico as well as to domestic wheat users along much of the Mississippi River system.¹² Moreover, a 1998 marketing agreement between CN’s Illinois Central subsidiary and Kansas City Southern Railroad (KS) gave CN direct access to the Mexican market,¹³ through various KS rail subsidiaries jointly held with Mexico’s TMM/Grupo Servia.¹⁴ These links reduce switching costs and delays and yield other competitive benefits for wheat marketers.

CP is a subsidiary of Canadian Pacific Limited, which also operates subsidiaries in maritime shipping and other lines of business.¹⁵ In its 2000 fiscal year, CP also earned 22 percent of its freight revenue from grain shipping.¹⁶ Of its total railway lines, 30 percent are in the United States, including lines through Minneapolis to Chicago and Detroit, and through Albany to the Northeast Corridor from Boston to Washington, DC.¹⁷ Unlike its larger rival’s network, no CP lines link Canada to the Gulf of Mexico.

¹⁰ The 2000 revenues of Norfolk Southern totaled \$6.16 billion, compared with revenues for CN and CP of \$3.67 billion and \$2.47 billion, respectively (data in U.S. dollars). Sources: company annual reports.

¹¹ Canadian National Railway, *2000 Annual Report*, p. 25.

¹² *Ibid.*, p. 26.

¹³ Paul M. Tellier, president and chief executive officer, Canadian National Railway Company, welcoming remarks made at the Annual Meeting of Shareholders, Toronto, Ontario, Apr. 27, 1999.

¹⁴ Kansas City Southern Industries, Inc. (parent of KS), Form 10-K, filed with the Securities and Exchange Commission for the fiscal year ending Dec. 31, 2000, p. 6. TMM/Grupo Servia was also the parent company of TMM Lines, a maritime shipping firm now owned by CN’s rival, CP Railroad. See more on maritime shipping below.

¹⁵ However, Canadian Pacific Limited has announced its plans to spin off CPR as an independent, publicly owned company by Fall 2001. See “Canadian Pacific Limited Reorganization,” media announcement, retrieved on July 25, 2001, found at <http://139.142.203.122/en/invest/reorganization/default.asp>.

¹⁶ Canadian Pacific Railway, investor presentation to Merrill Lynch/Global Transportation Leaders Conference, New York City, June 6, 2001, p. 8.

¹⁷ David P. O’Brien, Chairman, President and Chief Executive Officer, CP Limited, “Canadian Business in the 21st Century,” address before the Calgary Chamber of Commerce, May 19, 1999.

Figure 3-2
Network map of Canadian Pacific Railway



Source: Company website: <http://www.cpr.ca>.

Railroad rates

United States

The U.S. Congress began dismantling a century of railroad rate regulation with the passage of the Staggers Rail Act of 1980,¹⁸ which sharply reduced the regulatory role of the Interstate Commerce Commission (ICC), an independent agency that had been charged with, among other things, oversight of the railroad industry. The law enabled railroads to set rates themselves, in negotiation with shippers and customers.

Later, with the ICC Termination Act of 1995,¹⁹ Congress abolished the ICC and transferred many of its functions to a new agency, the Surface Transportation Board (STB), which is part of the U.S. Department of Transportation. Although rail rates are now set by the railroads themselves, the STB oversees trackage rights for railroads using other firms' tracks, maximum rate reasonableness for what is called "captive traffic," and rate discrimination, mergers, among other rail rate issues.

Within the limits set by the STB, U.S. railroads set their own rail rates, on the basis of several factors. These factors are the type of commodity, the volume of the shipment, the locations of origin and destination, whether the car is provided by the customer or the railroad, whether "switching" (changing rail lines, for example, to those of a competitor) is required, and for contracts, the time period the rate is to be available.²⁰ As in Canada (see below), railroads set different rates for transporting different products (even though the direct costs may be the same), as a policy of "differential pricing" designed to cover the shared costs of transporting all products.

Canada

In Canada, railroad deregulation is more recent and less complete than in the United States. In fact, grain transport is currently the subject of considerable public and private debate with commercial lawsuits and changing Canadian policies.²¹

In 1995, the Canadian Government eliminated the Western Grain Transportation Act (WGTA) with its subsidies for grains and oilseed exports from Western Canada, ending the approximately Can\$560 million annual government expenditure. After a "one-time" payment in 1997 of approximately Can\$1.9 billion to farmers to compensate them for the withdrawal of the annual WGTA subsidy, direct Canadian federal transportation subsidies to Canadian railroads for the transportation of grain were supposed to end.²² However, in

¹⁸ 49 U.S.C. 1010, P.L. 96-296 (1980); amended, 49 U.S.C. 1654(a), P.L. 97375 (1982).

¹⁹ P.L. 104-88 (1995); see also 49 U.S.C. 701 et seq. providing for establishment of the Surface Transportation Board.

²⁰ Harvey A. Levine, "Debunking the freight railroad pricing myth," a study for the Alliance for Rail Competition, March 2001, pp. 8-9.

²¹ See USDA, FAS, "Canadian: Grain and Feed, Grain Industry Transportation Deal Reached," U.S. Embassy, Ottawa, Report No. CA1112, Aug. 17, 2001.

²² Suchada Langley, "Canada's Agriculture: 5 Years after the End of Transportation Subsidies," USDA, ERS, *Agricultural Outlook*, May 2001, pp. 15-18.

early 2000, the Canadian Government and the provincial governments of Saskatchewan, Alberta and Manitoba announced another “one-time” payment of Can\$400 million to offset the loss of the WGTA direct rail subsidies.²³

Current rail rate regulation is guided by the Canada Transportation Act (CTA), which was passed shortly after parliament eliminated the WGTA.²⁴ Transport rates for western grains are indirectly capped, but the manner by which they are capped changed in August 2000, when parliament passed Bill C-34, which amended the CTA. Prior to that point, rates were allowed to rise each year by the rate of railway input-price inflation.²⁵ The formula used to set grain transport rates had been based on the railroads’ revenue base and its variable costs of grain shipment.

Rates are no longer directly capped. Bill C-34 replaced the regulation of maximum *rates* for the movement of grain with the regulation of maximum *revenues* that the two main railroads, CP and CN, may earn from the transport of grain.²⁶ The formula used to set grain revenues is based on year-to-year changes in mileage, but also depends on each railroad’s base year revenues, the number of miles per haul and the volume hauled in both the base and current years, and a volume-related composite price index.²⁷ Rates for individual hauls of grain are unregulated, as long as, in sum, they do not raise yearly railroad revenue from grain transport above the formula cap.

The CWB is the central agent affecting transport of wheat from the three provinces. This originated from the CWB Act that provides, “no person other than the Board shall transport or cause to be transported from one province wheat or products owned by a person other than the Board.” Related to rail rates are the allocation of rail cars—a large number of which are government owned—within Canada. Historically, the Grain Transport Authority had allocated rail cars among the CWB, shippers, railways, and grain companies until 1996

²³ Ibid.

²⁴ Canada Transportation Act (1996). Text available on the Government of Canada found at <http://laws.justice.gc.ca/en/C-10.4/text.html>.

²⁵ Andrew Schmitz and Harley Furtan, *The Canadian Wheat Board: Marketing in the New Millennium* (2000), p. 167. Input-cost inflation is also how the Surface Transportation Board measures (but not regulates) U.S. rail rates. See, e.g., Office of Economics, Environmental Analysis, and Administration, “Rail rates continue multiyear decline,” Surface Transportation Board railroad rate study, December 2000; available on the STB found at <http://www.stb.dot.gov>. For a critical review of this method, see Harvey A. Levine, “Debunking the freight railroad pricing myth,” a study for the Alliance for Rail Competition, March 2001; available on the ARC found at <http://www.railcompetition.org>.

²⁶ Canadian Transportation Agency, *Annual Report 2000*, p. 26.

²⁷ Canadian Transportation Agency, “Questions and Answers on the Railway Revenue Cap,” retrieved August 1, 2001, from the Internet at http://www.cta-oct.gc.ca/rail-ferro/grain/q_and_a_e.html. The formula is:

$$\text{Revenue Cap} = [A/B + (C-D) \times \$0.022] \times E \times F$$

where A is the base year revenues from grain movement; B is the number of tons of grain hauled in the base year; C is the current-year average length of haul; D is the base-year average length of haul; E is the adjusted revenue per tonne figure for the given crop year multiplied by the number of tonnes moved by the company in the given crop year; and F is a volume-related composite price index (which was unity for the 2000/2001 crop year).

when an industry group, the Car Allocation Policy Group (CAPG), carried out these responsibilities. The CAPG expired in 2000.

Thereafter in 2000/01, the negotiations between the CWB, the railroads, and grain companies broke down, and ended in a series of commercial disputes, “grain strikes by export terminal companies,” and delayed grain shipment to export ports.²⁸ Grain companies that had made extensive investment in large volume export terminal facilities were unable to recoup their costs under the CWB shipping scheme.

In November 2000, the CWB announced that it would become the shipper of record and henceforth pay the entire freight on grain shipments to terminals in either the United States or at Canadian ports.²⁹ This allowed the CWB to control fees to grain terminals and capture multi-railcar discounts from Canadian railroads, and thus obtain lower rail costs (although charging farmers the posted rail tariff for single car shipment).³⁰ This multi-railcar discount accrued to the CWB as the shipper, for example, the difference between a single car and a 50-car Canadian rail rate has averaged about U.S. \$6 per ton of wheat shipped over a 600 mile radius to Minneapolis.³¹ This U.S. \$6 per ton rail cost savings thus reduces the delivered cost of Canadian grain to U.S. and all other third-country markets.³²

A rail rate issue raised by the domestic industry concerns the CWB’s owned and leased railcars, which, the industry alleges, enables the CWB to obtain preferential rates from the railroads.³³ The CWB contends that it has no preferential access to government railcars, that the railroads operate all cars as if they owned them.³⁴ However, an independent body has reported that the CWB provides its 4,000 cars to the railroads “without charge.”³⁵

The freight rate charged the CWB by the railroads is not necessarily the same as that deducted by the CWB from its payments to producers. The latter is deducted from the initial payments at the beginning of the crop year, before any wheat is harvested and transported, and likely

²⁸ USDA, FAS, “Canada Grain and Feed-CWB, Grain Industry Troubled by Transportation 2000,” American Embassy, Ottawa, Dec. 5, 200, Report No. CA0190.

²⁹ Ibid.

³⁰ North Dakota Wheat Commission (NDWC), posthearing brief, pp. 3-5.

³¹ NDWC, posthearing, supplemental brief, June 28, 2001, appendix 12.

³² By one estimate, the effects of the revenue cap on rail costs for CWB grain amount to an 18-percent reduction from commercial rail tariffs for all other products; the savings is equivalent to US\$70 million based on the 1998 export volume of Canadian wheat shipped or about US\$3.83 per metric ton. See Andrew Wechsler, et al., “Expert’s Report on Canadian Rail Preferences,” May 25, 2001, attachment 8, NDWC, prehearing brief, before the USITC. Rail costs of U.S. wheat shipments from North Dakota to Portland, Oregon, the principal U.S. Pacific port, are as much as 37 percent more than rail costs of Canadian wheat shipped from Saskatchewan to Vancouver, British Columbia, the principal Canadian port on the Pacific. See NDWC, posthearing supplemental brief, June 28, 2001, p. 24.

³³ NDWC prehearing brief, May 25, 2001, pp. 31-34.

³⁴ CWB, prehearing brief, p. 9. (“In order to access * * *, the CWB must compete for them with the shippers of non-Board grain and of any other commodity that could be carried in them. As for railcar allocation, it is for the railways to determine how the supply of cars will be allocated among the various shippers.”)

³⁵ The Honorable Willard Z. Estey, “Grain Handling and Transportation Review: Final Report,” submitted to the Minister of Transport, Dec. 2, 1998, Chapter 3. See also. NDWC, prehearing brief, May 25, 2001, appendix 8, pp. 12-15.

before the rates are negotiated with the railroads. The following tabulation shows the expected 2001/02 crop year transport rates for HRS wheat (HRS) and Durum charged by the CWB based on shipping to Vancouver from various elevator locations in the Prairie Provinces:³⁶

To Vancouver from—	Freight charge	
	HRSW	Durum
	— Can\$ per metric ton —	
Rathwell, MB	29.65	19.17
Virden, MB	34.58	22.82
Glenavon, SK	24.87	24.87
Regina, SK	36.40	27.90
Aberdeen, SK	36.39	31.18
Tisdale, SK	38.08	28.92
Wilkie, SK	33.14	32.51
Lethbridge, AB	27.90	27.90
Lyalta, AB	23.07	23.07
Joffre, AB	26.61	26.61

With only a few exceptions, the freight charges are higher the closer to the center of the Prairie provinces the elevator is located. The charge for Aberdeen, Saskatchewan, for example, which is right in the middle of the region, is higher than at either Rathwell, Manitoba (closest to Thunder Bay) or Joffre, Alberta (close to Vancouver). Some points have unexpectedly high charges. This may be because some locations are off main rail lines and require switching; or it may reflect the relative volumes of business done at various elevators, because a small elevator that cannot load a 50- or 100-car train will create higher unit costs than a larger one that can. However, the fact that distance-based differentials differ by wheat type suggest that neither explanation is complete. No clear explanation for the difference between charges for HRS and Durum was provided by the CWB.

Maritime shipping

Except for NAFTA trade, all wheat exports from Canada or the United States are transported to importing nations by ocean-going vessels. For third-country exports, U.S. and Canadian ocean shipping rates appear to reflect geographic distance. The cost advantage for Canadian exporters shipping through the St. Lawrence compared with U.S. exporters shipping from the Gulf is greater in northern Europe than in southern Europe. In locations further south, such as Algeria, the advantage tips decidedly in the U.S. favor (see

³⁶ “CWB PROs: June Pool Return Outlook (PRO) for the 2001/02 Crop Year,” retrieved on August 7, 2001, from <http://www.louisdreyfus.ca>. The Vancouver charge is deducted whether or not the grain is actually shipped to Vancouver; the same charges are deducted if it is shipped eastward or to the U.S. market.

Ocean freight rates for “heavy grains” (including wheat) to selected importing nations, 1998/99:

<u>To</u>	<u>From</u>	<u>USD/MT</u>	<u>Ratio of U.S. to Canadian rate</u>
Netherlands	St. Lawrence	6.69	
	U.S. Gulf	9.42	1.41:1
Italy	St. Lawrence	11.88	
	U.S. Gulf	14.00	1.18:1
Algeria	St. Lawrence	17.06	
	U.S. Gulf	11.95	0.70:1
Jordan	St. Lawrence	22.00	
	U.S. Gulf	14.56	0.66:1
Venezuela	St. Lawrence	14.88	
	U.S. Gulf	11.00	0.74:1
Korea	North Pacific	12.25	
	U.S. Gulf	14.99	1.22:1
Taiwan	North Pacific	9.03	
	U.S. Gulf	13.65	1.51:1
Japan	North Pacific	10.22	
	U.S. Gulf	14.38	1.41:1
Philippines	North Pacific	23.50	
	U.S. Gulf	27.50	1.17:1

In the above tabulation, “North Pacific” includes both U.S. ports (e.g., Portland) and Canadian ports (e.g., Vancouver), whose competitiveness in that region is so great, according to grain industry sources, that their rates at any given time are similar if not identical.

Source: International Grains Council.

tabulation).³⁷ U.S. shippers also have a clear advantage in Venezuela. In the Pacific, North American suppliers find it more economical to ship from ports in the North Pacific than the Gulf.

A competitive factor in U.S. versus Canadian maritime shipping is the U.S. Jones Act³⁸ requiring that all vessels transporting cargo between two U.S. ports be built in the United States, crewed by U.S. mariners, and owned by U.S. citizens. Although intended to assist the U.S. shipbuilding industry and to support national security,³⁹ some suggest that it has the effect of raising the costs of U.S. transportation, because shippers are precluded from using foreign-owned vessels with lower fixed and variable expenses.⁴⁰

³⁷ Data are from the International Grains Council.

³⁸ Section 27 of the Merchant Marine Act of 1920, 46 U.S.C. 688.

³⁹ American Shipbuilding Association, “Support the Jones Act,” retrieved on Aug. 7, 2001, from the ASA website at <http://www.americanshipbuilding.com/init-jonesact.html>.

⁴⁰ See USITC, *Economic Effects of Significant U.S. Import Restraints*, Publication 3201, May 1999, for Jones Act analysis.

An illustration of the competitive disadvantage posed by the Jones Act for U.S. wheat producers is provided by the Hawaiian market. This market is supplied primarily with Canadian wheat, even though mainland U.S. producers are closer, because shipping rates are lower for Canadian vessels than for mainland U.S. vessels subject to the Jones Act.

Wheat quality

The first step in wheat marketing is determining its quality, which is measured by grade and which is the most important influence on price. Several characteristics make up overall wheat quality, the most important of which is *protein content*. Other characteristics, which when combined determine its *grade*, include the proportion of broken kernels, the degree of residue (dirt, weeds, etc.), and the presence of plant disease.

Protein content

Protein and gluten content mark the main difference between the wheat classes of hard wheat (including the subjects of this investigation, HRS wheat and Durum). Hard wheat is relatively high in protein and gluten, enabling its flour to absorb water easily and to produce an elastic and tenacious dough well suited to commercial bread baking and the manufacture of wheat cereal breakfast foods. As described below, wheat is priced according to its protein content (ranging generally from 11.5 percent to 15.5 percent), as well as its grade. As described in Chapter 2, Hard Red Spring and Hard Red Winter wheat are the closest substitutes, whereas Durum wheat has few close substitutes.

For the 2000/01 U.S. crop, HRS wheat had an average protein of 14.1 percent, with a range from 12 percent to 16 percent; the 2000/01 U.S. Durum wheat had an average protein level of 13.4 percent with a 11 percent to 15 percent range.⁴¹ HRS wheat is sold at the Minneapolis Grain Exchange (MGE) at different daily prices based on its protein levels. During crop year 2000/01, cash No. 1 HRS (Dark Northern Spring) sold on average for the following, at the Minneapolis Grain Exchange (MGE), according to USDA.⁴²

13% protein	\$3.45 per bushel
14% protein	\$3.62 per bushel
15% protein	\$3.95 per bushel

⁴¹ Data from the NDWC, “Average Protein Content of U.S. Wheat,” posthearing brief, Appendices 10-13, July 18, 2001.

⁴² USDA, ERS, *Wheat Situation and Outlook*, March 2001, and various issues.

Thus on average during 2000/01, adding 1 percentage point of protein added 17 cents per bushel or 5 percent to the value of the base (13-percent protein) HRS wheat; adding 2 percentage points of protein added 33 cents per bushel or 14 percent to the value of the base (13-percent) HRS wheat. The 13-percent protein wheat quoted at the MGE is a minimum of 13 percent protein; actual protein levels would probably be slightly above 13 percent- -i.e., 13.1 percent or 13.2 percent.

MGE market prices are not reported for various levels of protein for Durum wheat. There is not enough trade on the MGE to report different Durum protein levels; the only reported price is # 1 “Hard Amber Durum (milling).”

The value to a domestic or foreign wheat purchaser of additional protein to a defined market grade of wheat was debated in Commission submissions and testimony. John Miller, president of Miller Milling Company, a domestic Durum miller, indicated that obtaining higher protein- -for Durum- -added no value to his products; his concern was the minimum level of protein.⁴³ A higher protein product will not add additional revenue from his customers for pasta containing a higher protein. His testimony did not directly deal with HRS wheat.

The North Dakota Wheat Commission argued that adding protein would encourage wheat millers to purchase more Canadian wheat since protein is an absolutely key factor for wheat flour quality (particularly for bread flour derived from HRS), and reflected in daily cash prices.⁴⁴ A higher protein HRS wheat is worth considerably more since a miller can blend a “high pro” wheat with a lower quality (cheaper) wheat to get an adequate flour at a cheaper price. The NDWC quoted various published sources, including Canadian sources, that stressed the value of higher protein to a wheat purchaser.

Grade

Wheat grade rises as its broken kernels, residue, and disease decline. There are five numerical grades of wheat assigned by the U.S. Department of Agriculture: grade # 1 is the best (and highest priced), and is used for most domestic milling. Grades # 2 and # 3 are also suitable for human consumption and may be blended with # 1 (although as newer mills tend to have less storage capacity, this practice is on the wane); they also make up a significant share of U.S. exports, according to industry sources. Finally, # 4 and # 5 are the poorest quality and are used mainly for animal feed.

Price determination

The price of wheat in transactions between millers and producers is based on price levels prevailing on major commodity futures exchanges, subject to modifications for local supply and demand conditions. Even if a local market has a single county elevator and perhaps one miller nearby, the price farmers receive cannot stray far from the going prices on futures

⁴³ John Miller, testimony before the Commission, June 6, 2001.

⁴⁴ NDWC, posthearing brief, pp. 31-33, and 42-44, July 18, 2001.

exchanges. This is partly because of a high-quality system of roads and highways connecting producers with other markets, the increasingly common use of futures markets by producers as a hedge against adverse price movements, and the significant role in grain marketing played by producer cooperatives.

Wheat producers have three basic price strategies available to them: a forward cash contract, in which quantity and price arrangements are made prior to delivery from the field or storage facility; a cash market under which a given quantity is sold for immediate delivery at the current market price; and a price-later contract, which provides for immediate delivery but at a price to be determined at a later date.

Price for future delivery may be based either on the current cash-market or futures-market price quoted by commodity futures exchanges. Wheat delivery contracts are traded at three important exchanges, Chicago, Kansas City, and Minneapolis. These futures contracts are more of a financial instrument than an actual delivery contract; most “contracts” traded on futures exchanges never reach maturity and instead are cancelled out by offsetting ones before the delivery date. Producers, millers, and traders “hedge” their actual contracts with offsetting positions in these traded instruments, so that most risk of price fluctuations is shifted from producers to investors in the exchanges. If, for example, an adverse weather or crop report drives up the cash price of wheat, the loss reflected in terms of the value of the actual contract (which requires the farmer to deliver at the old, lower price) is at least partially offset by a rise in the value of the farmer’s investment in an offsetting futures contract.

Canadian Marketing Practices

Most wheat marketing issues in Canada center in one way or another on the CWB. In the Prairie Provinces (Alberta, Saskatchewan, and Manitoba), all wheat destined for either domestic human consumption or for export must be marketed by or through the CWB. Farmers in the Prairie Provinces are only allowed to market their own wheat if it is destined for feed use. In all other Provinces, wheat destined for any market channel can be marketed by farmers or their cooperatives. Since the Prairie Provinces account for over 90 percent of total Canadian Durum and HRS wheat production, the CWB markets the vast majority of Canada’s nonfeed wheat.

The Canadian Wheat Board

The CWB is an arm of the Government of Canada. Originally a Crown Corporation, it has since 1999 been administered by a board of 15 directors, 10 of which are industry members elected by Prairie farmers, and 5 of whom are government appointees. It was created by and operates under the authority of the Canadian Wheat Board Act, as amended.⁴⁵ Although the

⁴⁵ The text of the Act may be found at <http://laws.justice.gc.ca/en/C-24/27841.html>.

CWB states it is a “commercial entity,”⁴⁶ it is immune from the usual commercial threats to a corporation’s survival. The Federal Government must approve – and guarantee – its financial operations, including its borrowing, most of its credit sales to foreign buyers, and its initial payments to farmers.⁴⁷ Any “gain” the CWB earns from activities other than wheat sales (such as lending) is paid to the Federal Government, and any losses are covered by the Government.⁴⁸ Its 4,000 railroad cars⁴⁹ are “government hopper cars”⁵⁰ which it provides to railroads “without charge.”⁵¹ It administers Government farm support programs.⁵² It apparently is not subject to corporate income taxes (although its members are taxed on their payments as regular income).⁵³ Indeed, all of its actions are subject to review, approval, and

⁴⁶ CWB posthearing brief, p. 2. See also, Canadian Wheat Board Act, as amended, subsections 4(1) and (2) (“(1) The Corporation is a body corporate having capacity to contract in the name of the Corporation. (2) The Corporation is not an agent of Her Majesty and is not a Crown corporation within the meaning of the *Financial Administration Act*.”)

⁴⁷ Canadian Wheat Board Act, as amended, section 19. See also, CWB, *1999/2000 Annual Report*, pp. 62, 64; CWB, “A description of the Canadian Wheat Board's finance directorate,” retrieved on July 26, 2001, from the Internet at <http://www.cwb.ca/>.

⁴⁸ Canadian Wheat Board Act, as amended, subsections 7 (2) and (3).

⁴⁹ Half of these cars are on long-term lease from the Federal Government; half are owned outright by the CWB. The 2,000 board-owned cars were acquired in 1979-80, at an original cost of Can\$90.6 million. CWB, *1999-2000 Annual Report*, p. 66.

⁵⁰ Canada Transportation Act, Part III, section 147.

⁵¹ The Hon. Willard Z. Estey, “Grain Handling and Transportation Review: Final Report” (the “Estey Report”), submitted to the Minister of Transport, Dec. 21, 1998, ch. 3, Issues Arising in the Present System. (“From 1972 to 1986, the federal government acquired 14,000 hopper cars for the grain handling fleet in Western Canada. Some 13,000 remain in service. During the same period, the (Canadian Wheat) Board acquired by purchase and long-term lease, 4,000 hopper cars, and the provinces of Alberta and Saskatchewan acquired another 2,000 cars for the same purpose. These cars are provided to the two railways (CP and CN) in about equal numbers and are used, with some exceptions, entirely for the haulage of grain to domestic buyers and to points of export. Since the cars are provided to the railways without charge, the cost base for the current regulated rate scale does not reflect any allowance for the ownership cost of these cars. The ownership cost of the cars is thus not passed on to shippers, although the rate scale does include an allowance for their maintenance.”) The regulated rate scale referred to is no longer “current,” having been replaced in August 2000 with a regulated revenue system, as described earlier.

There have been proposals since at least 1996 for the private sale of the government hopper cars, but thus far disagreement—particularly between producer groups—as to who (railroads, grain companies, or producers) should get the right of first refusal and/or below-cost prices has delayed any sales. See Andrew Schmitz and Hartley Furtan, *The Canadian Wheat Board: Marketing in the New Millennium* (2000), pp. 168-69. At least one source has also recognized that below-cost sale of the government hopper cars to the industry could be interpreted as violative of Canada’s trade treaty obligations. Estey Report, ch. 3, sec. 1G.

⁵² CWB, *1999/2000 Annual Report*, p. 65. (“The Corporation administers the cash advance programs for wheat, Durum, and barley farmers in Western Canada on behalf of the Government of Canada. The Government guarantees the repayment of advances made to farmers and the Corporation recovers its costs of administering the programs from the Government.”)

⁵³ There is no mention of, nor provisions explicitly made for, income taxes in the financial statements presented by the CWB in its *1999/2000 Annual Report*.

modification by the Federal Government.⁵⁴ Within the above limits of Federal review and approval, the CWB is largely run by and for its voting member producers.⁵⁵

The CWB contracts with wheat buyers in the domestic market and in the United States and other foreign markets. However, it does not do any processing (other than cleaning and grading). Some of the post-export activities of marketing (such as ocean shipping and import paperwork), are carried out by the buyer (e.g., in the case of the Philippines), or are contracted out to private grain traders (including large multinational grain trading companies).

Nevertheless, the CWB engages in significant marketing efforts. In combination with the Canadian Grain Commission and other organizations, it conducts market research and makes demand and price projections, and tests new wheat varieties as to their suitability for buyers' needs. The CWB employs 70 sales agents, and in addition to its three Canadian offices (in Winnipeg, Vancouver, and Regina) it operates foreign sales offices in Beijing and Tokyo. With buyers' orders in hand, the CWB calls forth (or "accepts") the wheat offered by farmers, by a process described below. Unsold wheat is either stored until next year or marketed as feed. Net returns to the CWB from its wheat sales over the course of the marketing year are "pooled" and distributed to farmers in a series of scheduled payments, described in the following section, "Price determination and producer remuneration."

Although the CWB argues that it resembles a producers' cooperative (coop),⁵⁶ there are at least three critical ways the CWB departs from conventional producers' coop structure. One is the financial security the CWB obtains from Federal Government backing of its borrowing and lending; this is discussed under "Cost Advantage" below.

Another way the CWB is unlike a coop is that all western wheat producers must use the CWB to market all their product (except that portion intended for nonfeed uses),⁵⁷ whereas producer participation in a coop is voluntary.⁵⁸ Thus, the CWB has no domestic "free riders" adding to Canadian supply on world markets, nor competition from break-away members that would undercut the CWB and erode its pricing structure. This restriction gives the CWB more control over its selling price because it only competes with its foreign rivals.

⁵⁴ Canadian Wheat Board Act, as amended, subsection 18(1). ("The Governor in Council may, by order, direct the Corporation with respect to the manner in which any of its operations, powers and duties under this Act shall be conducted, exercised or performed.")

⁵⁵ Which is not to say it is run by and for all Prairie producers. Not all such producers are voting members of the CWB. According to * * * interviewed by Commission staff, 20 percent of Canada's wheat producers produce 80 percent of its wheat, but it is the other 80 percent of the farmers that stand behind the CWB. Commission staff could not verify these statistics, but there is evidence of disapproval of various CWB activities among some Canadian Prairie producers.

⁵⁶ CWB, posthearing brief, p. 5.

⁵⁷ CWB, posthearing brief, p. 6; Andrew Schmitz and Hartley Furtan, *The Canadian Wheat Board: Marketing in the New Millennium* (2000), pp. 3,36, 68-70; Canadian Wheat Board Act, part IV.

⁵⁸ USDA, Agricultural Cooperative Service, *Cooperative Principles and Legal Foundations*, Cooperative Information Report No. 1, Section 1 (September 1993). ("A cooperative is a voluntary contractual organization of persons having a mutual ownership interest in providing themselves a needed service(s) on a nonprofit basis. It is usually organized as a legal entity to accomplish an economic objection through joint participation of its members.")

A third way the CWB differs from a coop is that the CWB does not have to accept all saleable western wheat offered to it,⁵⁹ in contrast to a coop's general obligation to market all (that is saleable) that its members offer it. This gives the CWB power over quantities as well as prices of its sales. If markets are becoming glutted the CWB can stop accepting the wheat offered it. In the 1998/99 crop year, for example, the CWB severely cut back its acceptance of Durum (at one point it was not accepting any).⁶⁰ The only outlets for producers of unaccepted wheat are the low-valued feed market and producer direct sales at prices at or above CWB prices. (Demand at such prices would be unlikely, otherwise the CWB would make such sales itself.) Alternatively, wheat stocks may be held in inventory in anticipation of higher prices in the future.

Wheat offered to and accepted by the CWB

Federal law in Canada requires that all Prairie wheat destined for domestic food use or export channels be marketed through the CWB.⁶¹ Although all nonfeed wheat produced by western Canadian farmers must go through the CWB, not all such wheat need be accepted by the CWB.⁶² The CWB procures wheat through a "contract call:"

"A 'contract call' occurs when the CWB needs a grain of a specific type and quality. The CWB has 4 different sign up periods during the crop year where farmers offer to sell to the CWB a particular grade and quantity of wheat. A contract is formed at this point but is not complete until the CWB has determined what percentage of that particular product it will be accepting for delivery. At the end of each sign up period the CWB decides what across-the-board percentage of each offer it will accept. If the CWB does not accept all the product that a farmer has offered then the farmer has the option to withdraw from the contract. Over the course of the crop year, the CWB calls for delivery on the accepted portion of those contracts as the wheat is needed for shipment." (CWB, posthearing brief, p. 8.)

The CWB must market all wheat that it "accepts," but it does not have to accept all that is offered it.⁶³ That portion of the harvest it does not accept may go through one of only two channels, the animal feed market and the Producer Direct Sales (or "buy-back") program (which is operated by the CWB). In effect, therefore, all Prairie wheat not accepted or approved for sale by the CWB must be channeled to animal feed.

⁵⁹ CWB, posthearing brief, p. 8. ("Although the CWB is under no obligation to accept all of the wheat offered to it, it is contractually obliged to call (request delivery of) 100% of the amount that it does accept.") That the opposite is true is a remarkably widely held misconception among U.S. industry members interviewed by Commission staff.

⁶⁰ See CWB bulletins on "Acceptance Levels for 1998/99 Delivery Contracts," issued four times during the crop year. Available at <http://www.cwb.ca/grainmov/elevator/index.htm>.

⁶¹ Canadian Wheat Board Act, as amended, section 45.

⁶² CWB, posthearing brief, p. 8.

⁶³ In practice, the quantity not accepted is a small share of the total offered. Andrew Schmitz and Hartley Furtan, *The Canadian Wheat Board: Marketing in the New Millennium* (2000), p. 67. In the 1998/99 crop year, for example, the CWB "was able to accept all but 300,000 tonnes of Durum offered for delivery by farmers" or about 6 percent of the total quantity of Durum marketed in that year. *CWB Annual Report 1998/99*, p. 18. In 1999/2000, 100 percent of the Durum offered was accepted. *1999/2000 Annual Report*, p. 33.

Marketing by the CWB

Wheat marketed by the CWB is sold to domestic millers for human consumption or exported to buyers in the United States or overseas. CWB marketing agents in Canada and in various foreign markets gather information on domestic and foreign industries and markets, make projections of demand and prices, negotiate sales to buyers, and contract out much of the logistics of shipping to private grain companies.

Marketing by the producer via “buy-back”

Under the Producer Direct Sales program, wheat may be marketed in the United States by its producer after the wheat is sold to, and repurchased from, the CWB. That is, if a producer believes that it can get a higher price from private sale of its wheat than it can get by letting the CWB market its wheat, it may make the private sale—but only after it first sells its wheat to the CWB and buys it back at a CWB-determined selling price. This way the CWB receives the premium it would otherwise have earned had it made the sale itself, and the producer making the sale pockets any surplus above that. (If the producer loses money on the sale he is reimbursed via his pool payment).

One drawback to this arrangement, as expressed by western Canadian producers interviewed by Commission staff, is the fact that although the wheat may not have left the local elevator before being repurchased from the CWB, the repurchase price typically includes the transport charges to Vancouver as if the wheat had been shipped there for export which means that it is less likely the producer is going to negotiate a more profitable private sale.⁶⁴

Another reported drawback is that in its export declaration form the CWB requires that the producer/exporter report the buyer in the producer’s proposed private sale. This information is obtained from the elevator holding the producer’s grain. The elevator cannot under any circumstances release the grain without the CWB’s approval. The CWB, it is alleged, therefore has the ability, and perhaps the motivation, to contact the proposed buyer with a better offer, and scuttle the producer’s proposed private sale.⁶⁵ Alternatively, it is also alleged, the CWB may charge the producer a sufficient premium to dissuade him from carrying out the private sale.

The CWB, in interviews and testimony, argues that it has no motive to undercut the producer’s private sale unless, by making the sale itself, it makes money that would not anyway be redistributed to CWB pool producers. Because all such funds are redistributed, no such motive is said to exist. However, this argument ignores the fact that, but for the fee to the CWB, the individual producer would gain all the surplus from his private sale, whereas the fee payment -- or a coopting of the sale by the CWB -- ensures the surplus would be redistributed to all producers evenly. In effect, under the present system, the producer’s fellow CWB members benefit from the producer’s marketing efforts, without making any such efforts themselves. Therefore there does in fact appear to be a motive to undercut the

⁶⁴ See also Testimony of Paul Dickerson, U.S. Wheat Associates, hearing transcript, pp. 86-88.

⁶⁵ Commission interview with * * *, July 2001.

producer's private sale. But regardless of whether or how such power is exerted, the CWB's position as a required participant in any and all sales may serve as a useful disciplinary tool against producers desiring to act outside the CWB. As discussed earlier, this mandatory aspect of producer participation in the CWB marks a clear departure from the conventional structure and conduct of a farmers' cooperative to which the CWB often likens itself.

Marketing to the animal feed market

Finally, wheat may be sold privately by producers to the animal feed market. This is where the lowest grade wheat goes, because the demands of the buyers are low and so is the price offered. However, this is an expanding market because of the growing livestock industry in Canada. Some Canadian producers sell their higher-grade wheat to the animal feed market rather than hold it in storage in anticipation of a possibly higher CWB price during the next season.⁶⁶

Price determination and producer remuneration

Pool return

The complex system by which producer prices are set and paid in Canada involves several participants, including the CWB, its Federal Government overseers, U.S. and Canadian commodity futures exchanges, elevators, railroads, and producers. At its heart the system is a balance of supply and demand: low prices in one crop year cause producers to turn to alternative crops in the next. This leads to less wheat available for future CWB sales, leading in turn to higher offered prices in subsequent crop years.

Western Canadian wheat producers are paid a "pool return" that represents the average unit value of their wheat accepted by the CWB over the course of the crop year. Most (65 to 75 percent) of the annual return is initially paid as the crop year is getting underway. That is, on the basis of its expected returns for the coming year, the CWB, in consultation with the Governor in Council and its designated Minister for the CWB, sets an "initial payment" early in the year. This initial payment is approved and guaranteed by the Federal Government, and paid to producers. As the season progresses and sales are made, there are additional interim payments made to producers, and, at year's end, a final payment. The sum total of the payments represents the producer's pool return, or his share of the overall CWB pool.⁶⁷ The pool return depends on the type, grade, and protein content of the producer's sales to the CWB; thus, not all producers get the same pool return.

⁶⁶ Commission interviews with Canadian producers, July 2001.

⁶⁷ The CWB's normal costs of overhead and other business operations are deducted from the CWB's gross revenues prior to determination and distribution of the producers' pool return. See "June Pool Return Outlook for the 2001/02 Crop Year," retrieved on Aug. 7, 2001, found at <http://www.louisdreyfus.ca/>.

Prior to distribution to the producer, there are several calculated expenses deducted from the pool return.⁶⁸ The largest such expense by far is freight, which accounts for two-thirds of all calculated expenses. It is also the most complicated calculated expense. This expense represents a cost factor for freight from the producer's local elevator to Vancouver or Thunder Bay. This charge is deducted from the producer's pool regardless of whether the wheat actually goes to these ports or is shipped elsewhere. Thus the pool return received for wheat produced in Saskatchewan and shipped across the border to a North Dakota miller still includes the calculated freight charge as if it had been shipped six times as far to Vancouver for overseas export. An example indicates the importance of the freight charge: the freight charge in the 2001/02 crop year for Durum wheat from Regina is Can\$27.90 per metric ton, or 10.4 percent of the gross final pool price for # 1 CWAD (15.5 percent protein) anticipated for this crop year.⁶⁹

Additional costs deducted from the initial, interim, and final payments include elevation, cleaning, weighing, and inspection. As with the freight charge, these costs rise as a proportion of the gross producer return when the quality and protein content -- and hence the price -- of the wheat declines. Unlike freight, they do not vary by location of the producer. Together these nonfreight costs total Can\$15.40, or 5.7 percent of the gross final pool price for # 1 CWAD (15.5 percent protein) anticipated for the 2001/02 crop year.⁷⁰

The initial payment is based on a forecast of the year ahead (but in any case is guaranteed by the Federal Government). In contrast, the interim and, especially, final payments are not guaranteed, are subject to market forces, and effectively measure the CWB's ability to sell wheat and negotiate freight rates. The higher the actual f.o.b. prices received by the CWB compared with the calculated "in-store Vancouver" price used to calculate the pool return outlook early in the season, the greater the producers' final pool returns later in the season. Likewise, the lower the CWB's actual freight costs compared with the calculated charges deducted from early pool return payments, the greater the later final pool return.

Because the CWB is only required to make the initial payment, it potentially has greater flexibility to underprice its U.S. rivals. Legally, no further payments are required after the initial payment, and even that is guaranteed by the Federal Government should the CWB make so little that it cannot cover even that payment. Thus, the CWB has no break-even floor below which it cannot price. The freight calculation creates another cushion: the difference between actual freight charged or costs incurred (on, for example, a short trip southward into the Dakotas) and the Vancouver charge deducted from the producer's payment is, it is alleged, used to reduce selling prices for wheat still further. These allegations, while plausible, cannot be investigated further with the limited pricing information provided to the Commission by the CWB. Furthermore, respondents to the Commission questionnaires did not know actual rail charges from Canadian origins to a U.S. entry point ("gateway") because the CWB is the shipper of record and does not disclose this to U.S. purchasers.

⁶⁸ Calculated expenses ostensibly are estimates made at the beginning of the year of expenses (rail, handling, etc.) that will be incurred as the wheat is marketed. They do not necessarily correspond with actual expenses paid by the CWB.

⁶⁹ CWB, "June Pool Return Outlook for the 2001/02 Crop Year," retrieved on Aug. 7, 2001, found at <http://www.louisdreyfus.ca/>.

⁷⁰ Ibid.

Domestic wheat pricing and sales

Wheat is sold by the CWB into the Canadian domestic market based on a “competitive North American pricing” policy. According to this policy, the CWB bases its selling prices to Canadian mills on Minneapolis prices to ensure that Canadian wheat remains competitive with U.S. wheat in the Canadian market.⁷¹ This has resulted in limited exports of U.S. wheat to Canada (see Chapter 2), while at the same time encouraging value added processing in Western Canada.⁷²

According to the CWB, their competitive North American pricing for wheat sold to domestic processors has encouraged growth in Canadian milling capacity (including several new mills on the Prairies), growth in flour production and exports, and a turnaround to a positive balance of grain product or flour trade with the United States.⁷³ The CWB has also noted that nine flour mills have closed in the United States in the last year, whereas 11 wheat and barley processing plants have either expanded or been built in Canada in the past three years.⁷⁴ U.S. industry interests allege that the CWB provides mills with wheat at discounted prices relative to what the wheat would be priced in third-country export markets.⁷⁵

CWB ability to price discriminate

The U.S. industry, in various submissions under this investigation, has raised concerns that the CWB’s single desk selling authority enables it to price discriminate in the United States, Canada, and in third-country markets.⁷⁶ There has been considerable academic debate over the existence of CWB market power and the ability of the CWB to price discriminate, particularly in third-country markets, and the benefits that such discrimination provide to Canadian farmers. A review of this literature, which is largely by Canadian agricultural economists, can be found in appendix D of this report.

Researchers taking the position that the CWB holds market power and price-setting capabilities suggest that the CWB can achieve price premiums on higher quality wheat sales, particularly during periods of short supply, even when other countries subsidize wheat exports. On the other hand, those arguing that the CWB has no such market power and pricing capabilities contend that much of the CWB’s export demand is for medium and lower quality

⁷¹ USDA, ERS, “U.S.-Canada Wheat Trade: The Intersection of Geography & Economics, *Agricultural Outlook*, June/July 1999.

⁷² See CWB, *The Canadian Wheat Board Organic and Value-added Policies*, 2001 CWB Speeches retrieved July 25, 2001, found at www.cwb.ca/publicat/speeches/2001 for a statement on the value-added policy. In addition, CWB officials stated that Canada imports little U.S. wheat because sufficient wheat resides in Canada. USITC staff interview with CWB officials, July 13, 2001.

⁷³ Ibid.

⁷⁴ See CWB, *The Canadian Wheat Board Organic and Value-added Policies*, 2001 CWB Speeches retrieved July 25, 2001, found at www.cwb.ca/publicat/speeches/2001 for a statement on the value-added policy. In addition, CWB officials stated that Canada imports little U.S. wheat because sufficient wheat resides in Canada. USITC staff interview with CWB officials, July 13, 2001.

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⁷⁶ For example, NDWC, prehearing submission, May 25, 2001.

wheat grades, which have more price-conscious purchasers. These authors also argue that there are inefficiencies and hidden costs in CWB operations that eventually impose economic costs on Canadian farmers' bottom line.

It should be noted that this literature focuses on the existence or nonexistence of price differences in sales of Canadian wheat, and CWB-induced hidden/economic costs in high margin markets such as Japan. The authors that argue for the existence of CWB market power do not address how the CWB services and competes in low margin markets such as those discussed throughout this study, a major concern of the U.S. industry.

Cost advantages

Federal government guarantees

The CWB's largest cost by far is its initial payment to producers. This payment is the first in a series, followed by interim payments and a final payment; together, over the course of the crop year, they make up the Pool Return received by producers. The initial payment is the largest payment in the series: in the 2001/02 crop year, it is expected to cover 65 to 75 percent of the total Pool Return. The initial payment differs materially from interim and final payments in that it alone is approved and guaranteed by the Federal Government.⁷⁷ All subsequent payments are set by the CWB as warranted by market conditions for its wheat sales.⁷⁸ Although it has not happened in a decade, it is possible that the CWB would face such soft markets that it would not be able to generate any funds above the initial payment, and thus additional revenues to producers would be zero. This payment system greatly aids in the flexibility of CWB pricing.

Another cost issue is the financial benefit provided to the CWB by the Federal Government guarantee of all CWB borrowing. The CWB borrows considerable funds each year, primarily on a short-term basis to finance advance payments to producers. Such borrowings make up the bulk of its debt.⁷⁹ In its annual report, the CWB lists the following borrowings as of July 31, 2000:

⁷⁷ Therefore, as noted in Chapter 2, if weak markets lead to export prices below the initial payments to farmers, the CWB is protected by offsetting Federal infusions of capital.

At least one observer has likened this Federal guarantee to a free "put" option in a commodity futures market. William W. Wilson, Agricultural Economics Department, North Dakota State University, Commission staff interview, June 19, 2001. The value of the guarantee, viewed as a put option, varies with the size of the initial payment relative to wheat prices and with market volatility.

⁷⁸ Interim and final payments more closely resemble earnings distributions to stockholders. Such payments are tied to sales; the stronger the wheat market is, the greater the subsequent payments. Alternatively, if weak markets cause wheat prices to fall, the reimbursements paid by the CWB to producers will shrink (even, conceivably, to zero). Several Western Canadian wheat producers interviewed by Commission staff suggested that this allows the CWB to sell at whatever prices it needs to unload the grain, but insufficient evidence was obtained by the Commission to further investigate this assertion.

⁷⁹ CWB, *1999/2000 Annual Report*, p. 66.

Item	Amount	Effective interest rate
	<i>Can\$1,000</i>	<i>Percent</i>
Commercial paper	6,484,887	5.10-7.27
Euro medium term notes	576,291	5.84-6.67
Bank lines and other	171,013	5.15-6.75
Accrued interest	93,836	-
Total borrowings	7,326,027	5.10-7.27
Less investments	-61,818	5.75-6.66
Net borrowings	7,264,209	5.10-7.27

A rough measure of the benefit afforded the CWB by its Government backing is a comparison between the effective interest rates charged on its borrowing and those charged to private borrowers. The prime rate is the most widely used commercial short-term interest rate; the prime rate in Canada ranged from 6.75 percent in the first quarter of 2000 to 7.50 percent in the final two quarters.⁸⁰ Although the CWB's short-term debt typically is repaid within a year (as wheat is sold off), it is possible to make an estimate of the effects of Government backing by assuming that all debts are held for one year. The following tabulation compares an assumed annual interest cost of the CWB's commercial paper borrowings under actual rates to that under the prime rate:

Item	Amount
	<i>Can\$1,000</i>
Borrowings	6,484,887
Estimated annual interest cost at:	
Actual interest rates (5.10 to 7.27percent)	330,729 to 471,451
Prime rate (6.75 to 7.50 percent)	437,730 to 486,367
Cost difference	107,001 to 14,916

The "cost differences" estimated above warrant a caveat. The actual interest rates applicable to the CWB's borrowings increased during the year and ranged across types and sources of borrowings. Unfortunately, the available data are aggregated for the various commercial paper borrowings, which are the bulk of the total. Only a range of interest rates is available.

Nevertheless, a rough analysis can be made. A comparison of the lowest actual rates to the lowest prime rate suggests that the Government backing of the CWB gave it a cost benefit in 2000 of Can\$107 million, or 24 percent of what a private borrower would have paid.

⁸⁰ Department of Finance Canada, "The Economy in Brief" (quarterly), various issues.

Comparing the highest actual rates to the highest prime rate, the Government backing of the CWB gave it a cost benefit of Can\$15 million, or 3 percent of what a private borrower would have paid.⁸¹

“Phantom” expenses

The CWB’s wheat pool works like a basing-point pricing system, except that producers, rather than customers, pay the phantom freight. CWB producers are paid a pool return based on the delivered price of wheat to either Vancouver or Thunder Bay – regardless of whether their wheat is actually shipped there. A producer outside of Regina, Saskatchewan, for example, whose wheat is shipped to Vancouver is charged for the required transport. A neighboring producer whose wheat is instead shipped someplace closer (a mill in North Dakota, for example, or even in Regina itself) is charged the same freight, including phantom freight for the excess of the Vancouver trip over the actual trip.

This creates surplus revenue for the CWB, for which there are two possible uses. One would be for dispersal to producers at year’s end via a higher final payment in the pool return. Although there would be no overall effects on CWB members’ returns (the surplus is simply reimbursed to the industry), there would be significant implications for redistribution between producers. (All producers get the same share of the surplus, and the producer who paid phantom freight to Vancouver when his wheat actually went to a miller in Regina is implicitly financing the producer whose wheat did go to Vancouver.)

The other possible use is to finance CWB price reductions for selected customers or in selected markets. The phantom freight is the difference between the delivered price in Vancouver and the price paid to the Regina producer. The CWB could charge the local Regina miller the f.o.b. Vancouver price it reportedly quotes to buyers,⁸² or it could charge something less, down to the price inclusive only of actual, nominal freight from the nearby producer. As a revenue-maximizing entity, it charges what the market will bear, but it also must take into

⁸¹ In a book describing the CWB, two academic researchers argued that the benefit to the CWB from Government backing of low-interest borrowing is overstated. (Colin A. Carter and R.M.A. Loyns, *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton: Agriculture Alberta, 1996).) This, it is argued, is because part of the borrowings are used to finance credit sales to low-income countries that are sometimes not in a position to repay. (Ibid, pp. 84-85.)

However, such loan losses to the CWB do not occur. Losses from “bad” CWB loans to foreign buyers are covered by the Federal Government. Some of the funds borrowed by the CWB are indeed used to finance credit sales to less than creditworthy buyers abroad, and it is likely that some of these loans for credit sales are never repaid. Some overdue loans are rescheduled for extended payment periods or renegotiated for partial debt relief, by the Government of Canada on behalf of the CWB. According to notes to the Board’s 2000 financial statements, such refinancing was made in fiscal year 1999/2000 to credit-sale loans to a wide variety of low-income countries, including three of the subject markets of this investigation, Algeria, Brazil, and Peru. (CWB, *1999/2000 Annual Report*, p. 64.) The Government of Canada fully compensates the CWB for the reduced revenues attributable to such refinancing actions, and guarantees repayment of the principal and interest of all credit-sales loans. (Ibid.) See appendix D for more discussion about this research.

⁸² Commission staff interview with CWB officials, Winnipeg, July 13, 2001.

account conditions of local supply and demand -- including the price of U.S. wheat which the Regina miller could import instead.

Price data from the CWB are not available to analyze the “phantom freight” issue, but freight charges reported by the CWB show the disparity in charges deducted by the CWB at different elevator locations. These data, presented earlier, illustrate inconsistencies in the rates charged to different locations and for Durum versus HRS wheat. An example is the rate difference between Regina and Glenavon, located less than 75 miles apart, on the same CN rail line. The freight charge to Vancouver deducted by the CWB is Can\$36.40 per metric ton in Regina and Can\$24.87 per metric ton, or one-third less, in Glenavon. The difference is even more striking considering that at Regina several rail lines converge and the larger scale of railroad operations and facilities there might be expected to reduce, not raise freight-related charges.⁸³

Elevation is another pool deduction that provides a pricing cushion to the CWB. The elevation deduction from the 2000/01 pool return is Can\$11.25 per metric ton, for all elevators and both types of wheat. However, information from Canadian elevator operators indicates the actual charge to the CWB in the 2000/01 crop year was in the range of Can\$3.00 to Can\$8.00 per metric ton.⁸⁴ This is the same range as elevation costs in the United States. Subtracting from the elevation charge paid by CWB producers, this indicates surplus revenue to the CWB of approximately Can\$3.00-Can\$8.00 per metric ton.

Exchange Rates

Elsewhere in the world, trade in wheat is generally valued in U.S. dollars, even CWB exports to third-country markets. Thus, exchange-rate movements involving the currencies of third-country markets do not affect the prices received by U.S. exporters or paid by U.S. importers, but they do affect both the prices received by Canadian exporters and the prices paid by foreign buyers. Depending on the direction of change in the exchange rate, foreign buyers may opt to source their wheat from different exporters.

⁸³ Some Canadian producers interviewed by Commission -- producers that clearly do not support the CWB -- opined that the high freight charge in Regina dissuades local producers from using the rail facilities there to market their own wheat (which they have to buy back from the CWB at the f.o.b. Vancouver price after paying the phantom freight.) With fewer rail options in Glenavon, the CWB need not deduct such a high freight charge to dissuade producers there from marketing on their own. Insufficient data are available to assess this explanation’s plausibility.

Another explanation offered by another interviewed producer is that the wheat may be priced at Vancouver but shipped eastward to Thunder Bay; thus Glenavon, being closer than Regina to Thunder Bay, would have a lower freight charge. But both elevator locations are more than 650 miles (“as the crow flies”) from Thunder Bay, and the 75-mile distance between them (one-ninth the total distance to Thunder Bay) does not explain the one-third difference in transport charges.

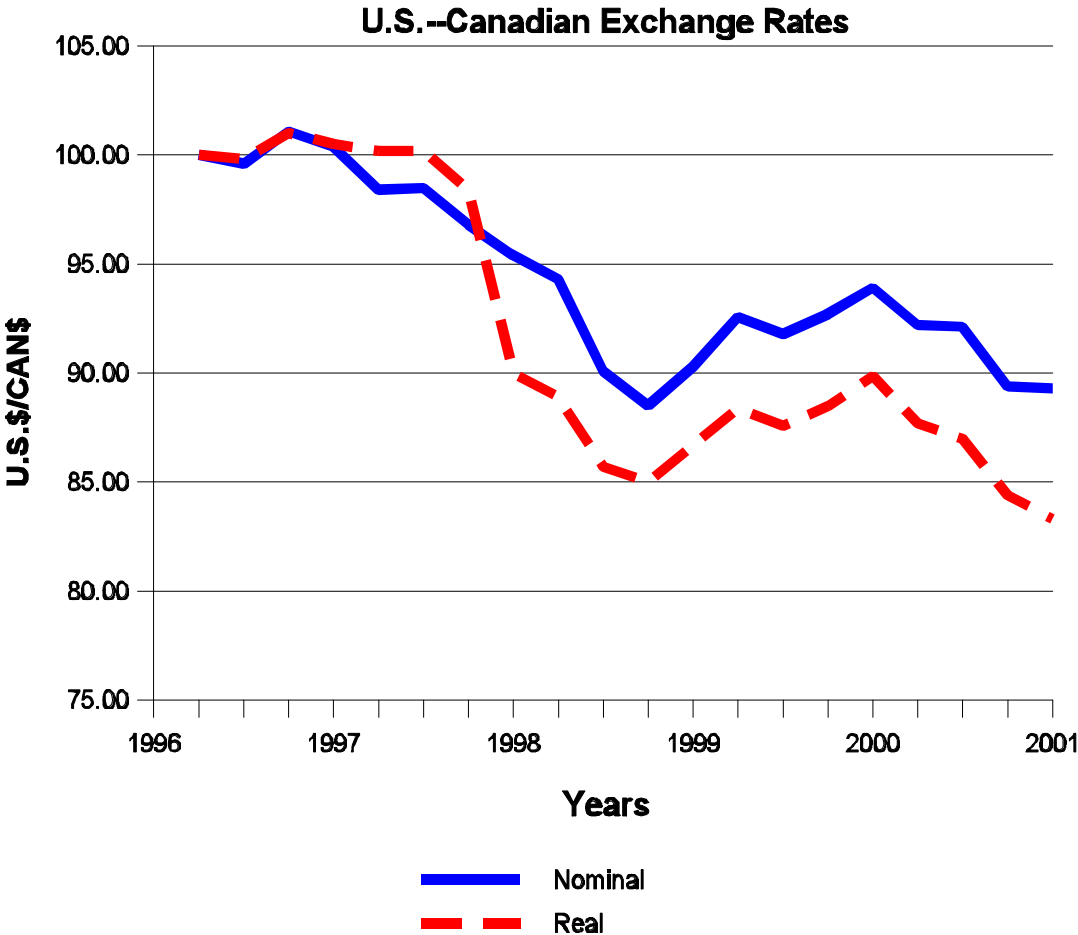
Generally, different charges for different elevators may owe partly to the fact that some locations are on regional or short lines and require switching to the larger railways’ lines; it may also reflect the relative volumes of business done at various elevators, because a small elevator that cannot load a 50-car train will create higher unit costs than a larger one that can.

⁸⁴ See Chapter 4 for more discussion of Commission questionnaire responses.

The decline in the value of the Canadian dollar vis-à-vis the U.S. dollar (figure 3-3) has made Canadian wheat more economical to third-country buyers. But movements in the importer's currency vis-à-vis the U.S. dollar just mean that the price of wheat from any foreign source has changed, without giving any added advantage to one exporting nation or another.

In real (inflation-adjusted) terms, the value of the Canadian dollar vis-à-vis the U.S. dollar generally declined over the last decade (figure 3-3). With the exception of a two-year up-turn during 1999/2000, the U.S. price of a Canadian dollar declined by almost 20 percent between 1996 and June 2001. This, as noted, has the effect of making Canadian wheat exports less expensive (in the U.S. market as well as third-country markets) and U.S. wheat exports more expensive (in Canada as well as elsewhere).

Figure 3-3
U.S.-Canadian dollar exchange rate, real and nominal, 1996-2001



Source: *International Monetary Fund*. "International Financial Statistics," June 1998 and June 2001.

CHAPTER 4

SURVEY SUMMARY OF WHEAT PURCHASERS

This chapter gives the results of the Commission purchasers' questionnaire covering the period 1996/97 to 2000/01¹ on prices paid for U.S. and Canadian Durum and HRS wheat by grade and protein level, imports of Canadian wheat, qualitative factors concerning purchasing of domestic versus Canadian wheat, and CWB pricing practices related to protein, dockage, credit terms, storage and transportation charges. The coverage of the purchasers' questionnaire was essentially all U.S. imports of Durum and HRS wheat from Canada during the 5-year period, and included 80-100 percent of domestic shipments for these two wheat classes, based on official U.S. Department of Commerce data.

The Commission sent out 84 questionnaires to U.S. firms purchasing U.S. and Canadian wheat. Firms were asked to complete the questionnaire if they milled, imported, purchased, or processed U.S. Hard Red Spring (HRS) or Canadian Western Red Spring (CWRS) wheat,² U.S. Amber Durum (HAD) or Canadian Western Amber Durum (CWAD), or both types of wheat from the United States, from Canada, or from both countries, during any part of June 1, 1996, through May 30, 2001. Of these firms, 36 did not fill out the questionnaire because they reported no purchases of these types of U.S. or Canadian wheat during the period of investigation. The Commission received completed purchasers' questionnaires from 26 purchasing firms,³ ranging from the * * * major multi-national grain companies,⁴ to a number of smaller firms that purchase limited quantities and types of wheat. Of the responding firms, eight also completed the exporters' questionnaire discussed in Chapter 5.

Questionnaire responses are presented in the following sections. The responses are compiled into tabulations, tables, or text, as suitable for the particular question. Not all firms provided responses to each question, depending on the applicability of the question to their specific operating and trading practices.

General Characteristics of Wheat Purchasers

The firms responding to the Commission purchasers' questionnaire identified their primary business and activities as shown in table 4-1.

¹ The split year refers to the wheat marketing year June 1-May 31.

² For clarity and in keeping with the Canadian terminology for Hard Red Spring wheat grown in western Canada, such wheat will be referred to as Canadian Wheat Red Spring wheat in this chapter. However, in certain instances, the term Hard Red Spring wheat will refer to both HRS wheat grown in the United States and CWRS grown in Canada.

³ * * *

⁴ The * * * major multi-national grain companies are * * *. In general, the Commission did not find any significant differences in the questionnaire responses of the * * * reported it * * * on purchases for domestic use of Canadian wheat.

Table 4-1
Purchasers: Primary business and business activities

Number of purchasers reporting, by primary business:					
Details	Grain company	Miller	Pasta manufacturer	Other	All respondents¹
Respondents, by primary business ¹ . . .	16	14	2	2	26
Business activities					
Grain storage	10	11	0	2	15
Grain elevation	9	8	0	0	10
Grain shipping	11	8	0	0	12
Grain sales	16	8	0	0	17
Grain milling	7	14	2	2	17
Grain brokerage	3	3	0	0	3

¹ Figures may not sum to total as some respondents provided multiple responses.

Source: USITC purchasers' questionnaires.

Of these firms, 12 reported having affiliated wheat-trading operations. Of those who offered further comment about the nature of their affiliates, seven firms engaged in milling operations, and the balance generally reported being engaged in exporting or sometimes both activities. Fifteen firms reported that their firm is owned in whole or in part by another firm. From the extent of business activities reported, nine firms appear to be vertically integrated to some degree although those seven firms who also mill wheat are very highly integrated.

Wheat Purchasing and End Use Patterns

Firms responding to the Commission's questionnaire were queried about their purchases of Canadian wheat including: sources, quantities imported, shifts in purchasing patterns, quantities milled, and end-uses of milled wheat.

Sourcing patterns for wheat purchases

When asked about whether they purchase Canadian wheat, and the specific sources of such purchases, including the Canadian Wheat Board (CWB), firms reported the following:

Sources of Canadian wheat purchases

	Direct from CWB	Licensed agent of CWB	Other than the CWB or its licensed agents	No purchases	All respondents¹
Number of respondents . . .	11	13	5	8	26

¹ Numbers do not sum to total as some respondents reported multiple activities.

Among the firms that purchased Canadian wheat, seven firms that purchased directly from the CWB also reported purchasing from the CWB's licensed agents, *** reported purchasing from all three sources. *** major multi-national grain companies reported purchasing from ***. None of the firms reported that they relied on the CWB as an exclusive supplier of Canadian wheat for any of their U.S. regional markets or domestic uses.

None of the firms reported purchasing a fixed percentage of its wheat from the CWB to meet its processing needs. Moreover, as to whether any differences in the percentages of processing needs being met by purchases of wheat from the CWB were attributable to variations in wheat type or grade, responses were as follows:

Any difference in percentages of processing needs purchased from the CWB that vary by type of wheat, grade of wheat, or both

	Yes	No
Number of respondents	3	4

Quantities purchased of U.S. and Canadian wheat

Of the 26 respondents, 20 reported procuring HRS or CWRS wheat during the period 1996/97 to 2000/01. Fifteen reported that they imported CWRS wheat directly from Canada, whereas four firms reported that they purchased CWRS wheat from other sources. Table 4-2 shows the quantities of CWRS/HRS wheat imported and purchased, by source, in each of the market years, by the major multi-national grain companies and by other companies.

The major multi-national grain companies accounted for *** percent of imports of CWRS wheat and *** percent of all HRS/CWRS wheat procured by all reporting firms in 2000/01.

Of all the responding firms, 18 reported procuring U.S. or Canadian Durum wheat during 1996/97 to 2000/01. Eleven reported that they directly imported Canadian Durum wheat, whereas *** reported purchasing Canadian Durum from other sources.

Table 4-3 shows the quantities of Durum wheat imported and purchased, by source, in each of the marketing years, by the major multi-national grain companies and by other companies. The major multi-national grain companies accounted for *** share of imports of Canadian Durum during 1996/97 to 2000/01 to ***. However, owing to purchases of U.S.-grown Durum wheat in marketing year 2000/01, the major multi-national grain companies accounted for *** percent of all Durum wheat procured by all firms in that year.

Shifts in purchasing patterns of Canadian wheat

Five firms reported they increased their purchases of Canadian wheat during 1996/97 to 2000/01, whereas 7 firms reported they decreased their purchases, 11 reported no change, and 3 reported fluctuating purchases.

Table 4-2
Purchasers: Imports and purchases of HRS wheat, 1996/97 to 2000/01

	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	<i>Metric tons</i>				
Major multinational grain companies:					
Direct imports from Canada	***	***	***	***	***
Direct imports from all other sources . . .	***	***	***	***	***
Purchases of Canadian wheat	***	***	***	***	***
Purchases of other foreign wheat	***	***	***	***	***
Purchases of U.S. wheat	***	***	***	***	***
Total	***	***	***	***	***
Other:					
Direct imports from Canada	***	***	***	***	***
Direct imports from all other sources . . .	***	***	***	***	***
Purchases of Canadian wheat	***	***	***	***	***
Purchases of other foreign wheat	***	***	***	***	***
Purchases of U.S. wheat	***	***	***	***	***
Total	***	***	***	***	***
All respondents:					
Direct imports from Canada	***	***	***	***	***
Direct imports from all other sources . . .	***	***	***	***	***
Purchases of Canadian wheat	***	***	***	***	***
Purchases of other foreign wheat	***	***	***	***	***
Purchases of U.S. wheat	12,636,212	11,202,159	11,125,102	11,688,853	10,250,960
Total	13,494,145	12,487,660	12,519,970	13,317,177	11,882,628

Note.—Figures may not sum to total shown due to rounding.

Source: USITC purchasers' questionnaires.

Table 4-3
Purchasers: Imports and purchases of Durum wheat, 1996/97 to 2000/01

	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	<i>Metric tons</i>				
Major multinational grain companies:					
Direct imports from Canada	***	***	***	***	***
Direct imports from all other sources . . .	***	***	***	***	***
Purchases of Canadian wheat	***	***	***	***	***
Purchases of other foreign wheat	***	***	***	***	***
Purchases of U.S. wheat	***	***	***	***	***
Total	***	***	***	***	***
Other:					
Direct imports from Canada	***	***	***	***	***
Direct imports from all other sources . . .	***	***	***	***	***
Purchases of Canadian wheat	***	***	***	***	***
Purchases of other foreign wheat	***	***	***	***	***
Purchases of U.S. wheat	***	***	***	***	***
Total	***	***	***	***	***
All respondents:					
Direct imports from Canada	***	***	***	***	***
Direct imports from all other sources . . .	***	***	***	***	***
Purchases of Canadian wheat	***	***	***	***	***
Purchases of other foreign wheat	***	***	***	***	***
Purchases of U.S. wheat	2,209,108	2,077,767	1,941,967	2,522,302	2,249,174
Total	2,770,810	2,656,764	2,500,675	3,047,985	2,757,360

Note.—Figures may not sum to total shown due to rounding.

Source: USITC purchasers' questionnaires.

The reasons attributed to purchasing shifts were as follows:

Reasons attributed to shifts in purchase volumes of Canadian wheat

	Price alone	Product quality alone	Over- delivery on quality specification	Short supply of domestic wheat	Length of contract	Other
Number of respondents . . .	8	7	1	4	3	9

Other reasons offered by firms for significant shifts in their purchase volumes of Canadian wheat include:

- either Canadian or U.S. producers' unwillingness to sell to U.S. customers;
- service, logistics, and contract execution;
- the relationship of the price, quality, and characteristics of Winter and Spring wheat;
- formation of new business ventures; and
- changes in buying policy towards or away from Canadian wheat.

Of the five firms reporting increased purchases of Canadian wheat, three reported price and quality as important reasons for the purchasing shift.

Firms were asked whether there was a seasonal pattern for purchases of Canadian Durum and CWRS, with firms providing the following:

Seasonal patterns for relative quantities of Canadian wheat purchased throughout the year

	<u>Durum</u>		<u>CWRS</u>	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
Number of respondents . . .	1	10	5	10

For purchases of both Canadian Durum and CWRS wheat, one firm mentioned that its purchasing patterns for these products depended on the seasonal selling patterns of U.S. farmers. In contrast, several firms elaborated further on the seasonal increase in their purchases of CWRS as follows:

- More imported wheat is generally bought from December through May, presumably related to post-harvest availability.
- More wheat is imported from late winter to harvest time as U.S. sources are depleted and as the Canadians offer the product quality and show the desire to sell to the U.S. market.
- More wheat is imported during harvest/vessel season.
- More purchases and deliveries occur during the second half of a marketing year due to transportation interruptions in the United States during the winter and spring.

Some firms reported a long-term change in their purchasing decisions for Canadian wheat:

Change in purchasing patterns of Canadian wheat over the past 5 years

	<u>Durum wheat</u>		<u>Western Red Spring wheat</u>	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
Number of respondents . . .	6	5	8	7

Firms responding in the affirmative provided further explanations as follows:

- Stopped purchasing Canadian wheat entirely and seek alternative suppliers owing to discriminatory pricing on part of the CWB.
- Stepped away from marketing Canadian-origin wheat into the United States.
- Changes in both purchasing policy and the quality of U.S.-grown grain.

More specifically, for long-term shifts in purchases of Canadian Durum wheat, some firms provided more specific explanations:

- Purchased more Canadian Durum wheat due to the 2 to 3 years of quality problems in Durum grown in North Dakota.
- Purchased less Canadian Durum wheat in the previous 12 months because of price considerations.

Likewise, for long-term shifts in purchases of CWRS wheat, other firms provided more specific explanations:

- A general lack of interest was noted on the part of the Canadians in trying to sell to U.S. customers.
- Import volume has increased due to a better relationship with Canada.

End uses for purchased wheat

Of the 14 firms that reported “grain milling” among their business activities in table 4-1, 13 reported production, shipment, and inventory statistics about wheat flour milled in their facilities from CWRS/HRS wheat, (table 4-4)⁵ and 10 reported production, shipment, and inventory statistics about semolina and Durum flour milled in their facilities from Durum wheat (table 4-5).⁶ A break-down by end uses for the wheat flour and the semolina and Durum flour reported by these firms is shown in table 4-6.

Table 4-4
Purchasers: Production, shipments, and inventories of wheat flour (except semolina and Durum flour) produced in U.S. establishments, 1996/97 to 2000/01

	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	<i>Thousand cwt¹</i>				
Beginning of period inventories	2,169	2,458	3,543	3,467	3,637
Production of wheat flour:					
from Canadian wheat	10,724	14,336	15,785	12,797	16,886
from U.S.-grown wheat	154,835	155,584	167,311	172,843	181,530
from other foreign wheat	***	***	***	***	***
from pre-blended wheat	***	***	***	***	***
Other ²	***	***	***	***	***
Total	***	***	***	***	***
Company transfers (including internal consumption)	***	***	***	***	***
Domestic shipments	161,678	164,354	177,570	178,735	192,877
Export shipments	***	***	***	***	***
Other ²	***	***	***	***	***
End-of-period inventories	2,453	3,006	3,467	3,580	3,512

¹ Hundredweight.

² Outside purchases, customer return, spoilage, etc. May also include accounting discrepancies due to errors, omissions, oversights, etc.

Note.—Figures may not sum to total shown due to rounding.

Source: USITC purchasers' questionnaires.

⁵ Table 4-4 includes provisions for data discrepancies as ***. * * *. * * *.

⁶ Likewise, table 4-5 includes provisions for data discrepancies as * * *.

Table 4-5
Purchasers: Production, shipments, and inventories of semolina and Durum flour produced in U.S. establishments, 1996/97 to 2000/01

	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	<i>Thousand cwt¹</i>				
Beginning of period inventories	161	135	148	157	205
Production of semolina and Durum flour:					
From Canadian wheat	3,320	10,279	6,147	6,337	6,714
From U.S.-grown wheat	15,142	13,714	12,899	13,847	18,004
From other foreign wheat	***	***	***	***	***
From pre-blended wheat	***	***	***	***	***
Other ²	***	***	***	***	***
Total	***	***	***	***	***
Company transfers (including internal consumption)	***	***	***	***	***
Domestic shipments	15,834	14,407	13,859	12,869	16,866
Export shipments	***	***	***	***	***
Other ²	***	***	***	***	***
End-of-period inventories	135	248	157	182	258

¹ Hundredweight.

² Outside purchases, customer return, spoilage, etc. May also include accounting discrepancies due to errors, omissions, oversights, etc.

Note.—Figures may not sum to total shown due to rounding.

Source: USITC purchasers' questionnaires.

Table 4-6
Purchasers: End uses of wheat flour and of semolina and Durum flour milled in U.S. establishments, 1996/97 to 2000/01

	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	<i>Thousand cwt¹</i>				
Wheat flour for:					
Bread	67,637	69,436	73,409	73,473	77,920
Baked goods production	61,796	63,787	70,044	72,440	78,932
Bread and baked goods, undifferentiated	***	***	***	***	***
Cereal goods production	13,190	13,468	14,522	14,921	14,713
Other goods or uses	***	***	***	***	***
Total ²	165,637	170,086	183,145	185,859	198,412
Semolina and Durum flour for:					
Pasta	***	***	***	***	***
Other goods or uses	***	***	***	***	***
Total ²	18,488	18,497	19,504	20,182	24,824

¹ Hundredweight.

² Totals differ from the production data reported in tables 4-4 and 4-5.

Note.—Figures may not sum to total shown due to rounding.

Source: USITC purchasers' questionnaires.

Technical Considerations in the Purchase of Wheat

Firms responding to the Commission questionnaire were asked about the relative importance of factors affecting purchases; product-quality premiums and discounts, and need for blending; importance of transportation costs; and structures of purchase contracts.

Ranking of purchasing-decision factors

When asked to rank a number of factors as to their relative importance in their wheat purchasing-decisions, firms provided the responses shown in table 4-7. According to the firms, purchasing decisions were also influenced by:

- suppliers' ability to respond quickly to meet customers' urgent needs;
- contract terms;
- ability to supply deferred positions; and
- marketing agreements with customers.

Table 4-7
Purchasers: Importance of wheat purchasing-decision factors

Purchasing-decision factors	Number of purchasers citing the rank of a factor ¹ (1-most important to 10-least important):										Total responses
	1	2	3	4	5	6	7	8	9	10	
Timeliness of delivery	5	2	12	3	1	1	0	0	0	0	24
Quality of wheat supplied	10	9	1	3	0	0	0	0	0	0	23
Price	11	6	3	3	1	0	0	0	0	0	24
Can guarantee future price or future delivery	3	2	0	4	6	6	0	1	0	0	22
Reputation or reliability of the supplier	8	2	4	3	5	1	1	0	0	0	24
Can supply large volume of shipments	2	2	1	2	7	5	2	0	0	0	21
Other	0	0	0	0	1	1	1	0	0	0	3

¹ Not all respondents ranked each factor.

Source: USITC purchasers' questionnaires.

Product quality

Firms were asked about price premiums and discounts that U.S. producers were willing to pay for the following product characteristics of Canadian wheat over U.S. wheat: cleanliness (i.e., lack of foreign material), intrinsic milling characteristics, overall uniformity, relative protein levels, and color and vitreous content. For CWRS/HRS wheat, * * * based on intrinsic milling characteristics of CWRS wheat over U.S. HRS wheat. None of the firms reported willingness to pay a premium or receive a discount for any of these characteristics of Canadian over U.S. Durum wheat. Moreover, * * *, stated that any discounts or premiums applied to an individual purchase would be determined on a case-by-case basis as determined by the market. * * *.

Four purchasers out of 21 respondents reported blending wheat purchased from different origins, different qualities, or both before reselling to an unrelated customer. Several firms indicated that blending was required to ensure product consistency:

- * * *
- * * *
- * * *

Two other firms indicated that blending was necessary to meet customer requirements:

- * * *
- * * *

Transportation costs

Firms were first asked about the importance of the cost of transporting wheat from the supplier in their purchasing decision, with responses as follows:

Cost of transportation a significant factor in the purchasing decision		
	Yes	No
Number of respondents	13	12

As an indication of industry concern about transportation issues, 14 firms provided further comments. Many emphasized that wheat must be price-competitive on a delivered basis, and that freight rates are an integral part of any delivered price calculation. Several went on to suggest that transportation costs apply without regard to origins or destinations, whether in the United States or Canada. However, * * *.

Furthermore, the responding firms explained that they manage transportation cost in a variety of ways. For roughly * * * of the shipments to its facilities, a * * * relies on favorable rail contracts with a Canadian railroad to lower its delivered prices. One firm strives to be the least-cost supplier in all situations, and thus, determines the origin for specific sales by the cost of freight to final destination. As a result of the cheaper freight rates from the United States and more competitive U.S. prices noted by some firms, * * * U.S. wheat. * * * all of its wheat from any supplier on the basis of Minneapolis delivery, with the transportation cost to Minneapolis charged to the shipper.

Firms were also asked to compare purchase terms for setting the cost basis of U.S. and Canadian wheat, with responses as follows:

Purchase terms of U.S. and Canadian wheat

	F.o.b. origin	Delivered Minneapolis	Delivered Chicago	Delivered Kansas City	Other
Number of respondents reporting for:					
U.S. wheat ¹	5	10	4	***	14
Canadian wheat ¹	3	8	7	0	10

¹ Some respondents provided multiple responses.

Finally, firms were asked how payment of transportation costs are broken out, with responses as follows:

Payment of transportation costs for purchases of Canadian wheat

	CWB	Customer	Split between the CWB and customer
Number of respondents	7	0	8

Firms were generally not able to report average transportation costs between the principal Canadian purchase points and principal U.S. destinations;⁷ a number reported that they did not know the freight rates from the principal originating point in Canada to their local facility in the United States as the price for Canadian wheat was often cited with reference to a “gateway” point in the United States, with Minneapolis being a frequently cited transit spot.⁸

Contract structure

Regarding the contract structure for purchases of Canadian wheat, the 11 firms that reported purchasing directly from the CWB provided responses as follows:

⁷ Too few observations on the average transportation costs between principal Canadian purchase points and final U.S. destinations were reported by firms to be considered a representative sample of the transportation costs of Canadian wheat purchases. According to one firm, transportation costs from * * * in each of the marketing years. Another firm reported that its * * * in marketing year 1998/99, to *** in marketing year 1999/2000, to * * * in marketing year 2000/01.

⁸ Similarly, too few observations on the average transportation costs from principal U.S.-location “gateways” to final U.S. destinations were reported by firms to be considered a representative sample of the transportation costs of Canadian wheat purchases referenced to a U.S. “gateway.” A firm reported transportation costs from * * * in each of the marketing years, and to its facility * * * in 1996/97 to *** in 2000/01. Another firm reported average transportation costs from * * * in each of the marketing years. Another reported transportation costs from * * * in each of the marketing years.

Contract types for purchases of wheat from the CWB

	Spot	Forward	Multi-year	Other	None
Number of respondents ¹	7	11	0	0	0

¹ Some respondents provided multiple responses.

* * * other firms that purchase from licensed agents of the CWB also reported forward contracts.

As to whether a future delivery contract for CWAD is of value to purchasers, opinions of firms are as follows:

CWAD future delivery contract of value to purchasers		
	Yes	No
Number of respondents	8	6

Of the six firms reporting that the CWAD future delivery contract was not of value to purchasers, three reported purchasing CWAD whereas the other three did not.

U.S. and Canadian Marketing Practices

Firms responding to the purchasers’ questionnaire were asked about U.S. and Canadian marketing practices to elucidate the CWB’s pricing practices.

Comparison of U.S. and Canadian marketing practices

To compare U.S. and Canadian marketing practices, firms were questioned about delivery terms, the price-negotiation process, sales terms, and payment terms.

Delivery timing for purchases

When asked about the structure of delivery terms for purchases of U.S. wheat compared to Canadian wheat, firms purchasing HRS/CWRS and Durum wheat reported longer delivery terms for both CWRS and Canadian Durum wheat as shown in tables 4-8 and 4-9. For example, 11 of 14 responding firms purchasing CWRS wheat reported they receive at least 26 percent of CWRS wheat within 31 to 90 days, compared to 8 of 19 firms purchasing U.S. HRS wheat. For Durum wheat, 9 of 12 firms reported purchasing at least 26 percent of Canadian Durum wheat for delivery between 31 and 90 days, and 4 reported purchasing 26-50 percent of Canadian Durum for delivery between 91 and 180 days. For U.S. Durum wheat, 6 of 14 firms reported purchasing at least 26 percent of wheat for delivery between 31 and 90 days, with 3 firms reporting they purchase 51-100 percent of U.S. Durum for delivery between 91 and 180 days. However, 6 of 14 firms purchasing U.S. Durum wheat

Table 4-8
Purchasers: Delivery terms for purchases of U.S. HRS and CWRs wheat

Delivery terms for purchases:	U.S. HRS Wheat				CWRs wheat			
	Percentage of sales							
	0-10	11-25	26-50	51-100	0-10	11-25	26-50	51-100
	<i>Number of respondents</i>							
Immediate	4	3	1	0	3	0	0	0
Within 10 days	5	2	2	0	4	0	0	0
Between 11 to 30 days	0	2	8	5	1	2	3	4
Between 31 to 90 days	3	2	5	3	1	0	9	2
Between 91 to 180 days	4	4	0	0	0	5	2	0
Beyond 180 days	6	0	0	0	1	2	1	0

Source: USITC purchasers' questionnaires.

Table 4-9
Purchasers: Delivery terms for purchases of U.S. and Canadian Durum wheat

Delivery terms for purchases:	U.S. Durum wheat				Canadian Durum wheat			
	Percentage of sales							
	0-10	11-25	26-50	51-100	0-10	11-25	26-50	51-100
	<i>Number of respondents</i>							
Immediate	3	1	1	0	1	0	0	0
Within 10 days	2	2	2	0	2	0	0	0
Between 11 to 30 days	1	1	5	3	2	0	3	2
Between 31 to 90 days	3	4	3	3	1	1	6	3
Between 91 to 180 days	3	2	0	3	0	3	4	0
Beyond 180 days	2	2	0	0	0	2	2	0

Source: USITC purchasers' questionnaires.

indicated they purchase a percentage of this wheat for delivery within 10 days, and 5 reported they purchase a percentage of this wheat for immediately delivery, compared to *** firms reporting on their comparable purchases of Canadian Durum wheat.

Price-negotiation process

Firms were asked to compare and contrast the price-negotiation processes for purchases of both U.S. and Canadian origin wheat. For Canadian wheat, most firms indicated that after initially contacting the CWB, negotiations are conducted through a bid-offer process until the price, quantity, grade, quality characteristics, and desired shipment period are agreed upon. Additional comments provided by individual firms include:

- Purchasing decision for Canadian Durum wheat is based solely on a quality-price ratio; based on milling needs, the necessary quality is purchased at the lowest possible price.

- Negotiations for pricing of CWRS wheat are based on the prevailing U.S. prices.
- Not only are offered prices received for CWRS wheat compared, but also whether the quality, logistics, and timing of a potential purchase would meet the firms' current needs must also be considered.

For purchases of U.S. HRS and Durum wheat, most firms noted that the price-negotiating (bid-offer) process was much the same in the United States as in Canada. One firm elaborated that there is greater liquidity in the U.S. market due to the presence of more sellers, and that the U.S. company is liable for damages in the case of non-performance. Additional comments provided by individual firms include:

- * * *
- * * *

Terms of sale

When asked about whether terms of sale differ between purchases of U.S. and Canadian wheat, firms provided the following about each type of wheat:

Differing terms of sale between purchases of U.S. and Canadian wheat

	Durum		CWRS	
	Yes	No	Yes	No
Number of respondents . . .	2	9	3	12

For purchases of U.S. and Canadian Durum wheat, specific differences reported by individual firms included:

- * * *
- * * *

Likewise, for their purchases of HRS and CWRS wheat, specific differences noted by individual firms included:

- * * *
- * * *

Payment terms

When queried as to payment terms for purchases of U.S. and Canadian wheat, 15 firms reported paying similar percentages of the balance due within 10 days or less after purchase -- ranging from 90 to 100 percent for U.S. wheat compared to a range of 89 to 100 percent for Canadian wheat -- with any balance due after 14 days or more, or at the time of unloading or thereafter. Several firms reported more specific payment terms:

- * * *
- * * *
- * * *

CWB pricing practices

To elucidate the CWB’s pricing practices, firms were asked about the CWB’s use of futures pricing, premiums and discounts offered, negotiation of bonification-scales,⁹ protein content, dockage levels, any over-delivery on contract specifications, and quantity and other discounts.

CWB’s use of futures pricing

Firms were asked to report on the CWB’s use of grain exchanges for price setting, with responses as follows:

CWB contract prices pegged to a benchmark or to a futures contract

	Yes	No	Unknown
Number of respondents . . .	12	0	6

Two of the firms reporting that the CWB benchmarks its prices offered further elaboration about the basis upon which the CWB pegs its contract prices:

- Minneapolis cash price adjusted for the particular market circumstances.
- The relationship between Winter wheat cash values and Spring wheat cash values delivered to Minneapolis and beyond.

CWB’s use of grain exchanges for price setting

	Yes					No	Unknown
	Minneapolis Spring	Minneapolis Durum	Kansas City Chicago	Other exchanges			
Number of respondents ¹ . . .	12	1	2	0	1	4	1

¹ Some respondents provided multiple responses.

Two firms provided additional comments about the pricing of Durum wheat. One stated that the Minneapolis Durum futures lacked liquidity, whereas the other stated that it did not know how the CWB sets a price for Durum wheat.

⁹ “Bonification” refers to contractual terms of quality, delivery, or other factors and to a list of penalties or price discounts in the event of contract violation.

Structure of Canadian premiums and discounts

Firms were asked about the types of discounts received or premiums paid by the firm for Canadian wheat. Although three firms reported not receiving any premiums or discounts for purchases of Canadian Durum wheat, several others provided additional details:

- * * *
- * * * reported that normally Canadian Durum wheat commands a *** premium to the Minneapolis market price.
- * * * stated that a basis premium over Minneapolis futures applied.
- * * * reported that protein discounts would apply; should the protein ever fall below the contracted level, the contract price would be lowered.

For purchases of CWRS wheat, * * * reported purchasing “as is” without price adjustments for contract characteristics, and several others provided details about premiums and discounts:

- * * * reported that premiums (basis Minneapolis cash grain, closing values for proteins) were paid for protein above contract and discounts were applied for lower protein levels.
- * * * reported that protein premiums are loosely * * * based on the price structure in place in the U.S. market.
- Six firms reported that grade premiums are also paid, e.g., premiums are paid for # 1 CWRS which generally commands a \$0.03 per bushel premium over # 2 CWRS wheat.
- * * * reported applying premiums or discounts to individual purchases on a case-by-case basis as determined by market conditions.

Firms indicated that any discounts provided on Canadian wheat are typical of U.S. wheat, as follows:

Discounts provided on Canadian wheat also typical of U.S. wheat			
	Yes	No	No discounts
Number of respondents:			
HRS/CWRS	10	0	5
Durum	7	0	5

Canadian bonification scales

Firms were asked about their experiences in negotiating Canadian bonification¹⁰ scales, with responses provided as follows:

¹⁰ “Bonification” refers to contractual terms of quality, delivery, or other factors and to a list of penalties or price discounts in the event of contract violation.

Bonification scales for Canadian wheat tend to favor

	Buyers	Sellers	Neither	Unknown
Number of respondents	1	1	10	1

Consistency of Canadian wheat bonification scales with U.S. wheat bonification scales

	Yes	No	Don't know
Number of respondents	6	0	8

Over-delivery of contract specifications

Firms were asked generally to report on the extent to which actual deliveries of Canadian wheat exceed contracted specifications, with responses as follows:

CWB deliveries of wheat exceeding contracted specifications

	Over-delivery is the norm	Over-delivery is minor and not anticipated	Under-delivery almost as frequent as over-delivery	Don't know
Number of respondents	4	12	2	0

Delivered protein content

Firms were asked to compare the relative protein levels of Canadian and U.S. wheat delivered to their facilities, and about price adjustments, if any. Regarding deliveries that exceed the minimum contracted protein levels, all 18 responding firms reported that deliveries of U.S. wheat exceed the minimum contracted levels. Seventeen of 18 firms reported that Canadian wheat deliveries exceed the contracted protein levels, with 1 firm reporting that such deliveries do not exceed the contracted protein level.

As described earlier under “Protein Content” in Chapter 3, the higher the percentage of protein in a grade of wheat the higher the value (price) of the wheat, other things being constant. Most wheat contracts specify the minimum level of protein, and often specify penalties for failure to meet the minimum level.

Most firms did not know the extent to which protein content differs from contracted specifications. But those that did report, indicated similar over- and under- delivery for both U.S. and Canadian wheat as shown in the tabulations below:

Percentage of all shipments that exceeded contracted protein specification by more than 0.3 percentage points

	0 to 5	6 to 15	16 to 25	26 to 50	Unknown
Number of respondents:					
Deliveries of Canadian wheat	4	3	1	0	10
Deliveries by U.S. suppliers	3	0	2	3	10

Percentage of all shipments that fell short of the contracted protein specification by more than 0.3 percentage points

	0 to 5	6 to 15	16 to 25	26 to 50	Unknown
Number of respondents:					
Deliveries of Canadian wheat	5	1	0	0	9
Deliveries by U.S. suppliers	6	1	1	0	9

Regarding price adjustments, most firms indicated that when delivered protein content exceeds the contracted level, prices for both U.S. and Canadian wheat are generally not raised as shown below:

Adjustments to price when protein content exceeds the contracted protein specification

	No adjustment of price paid	Prices raised	Other
Number of respondents:			
Deliveries of Canadian wheat	14	1	3
Deliveries by U.S. suppliers	11	2	4

Most respondents indicated that prices for U.S. and Canadian wheat would be lowered in event of a protein shortfall, but more firms reported this occurrence for U.S. wheat than for Canadian wheat as shown below:

Adjustments to price when protein content falls short of the contracted protein specification

	No adjustment of price paid	Prices lowered	Other
Number of respondents:			
Deliveries of Canadian wheat	2	6	6
Deliveries by U.S. suppliers	1	10	5

Most firms indicated that deliveries from the CWB had never been below specifications. In the case of shipments under-specified for protein content, one firm reported that delivery would be rejected and another firm reported an instance in which the shipper reloaded the rail cars of under-specification wheat. Finally, two firms reported that price adjustments for low protein levels would be handled on a “situational” basis or negotiated with the vendor.

Dockage of delivered wheat

The term “dockage” refers to the amount of foreign material within a quantity of wheat, typically composed of field crop waste, weed seeds, dirt or dust; the maximum dockage rates generally are less than 1 percent, but specified for each grade of wheat. Firms were asked about contracted dockage levels of Canadian wheat and about any difference in actual dockage levels of delivered wheat compared to contract specifications, with responses as follows:

CWB ever deliver wheat below the contracted dockage specified

	Yes	No	Not specified	Unknown
Number of respondents . . .	11	6	1	0

As to the proportion of all shipments that were below the contracted dockage specification by more than 0.2 percentage points, 3 firms provided responses ranging from 95 to 100 percent, whereas the other 10 firms responded they did not know:

Percentage dockage levels specified on wheat purchases from the Canadian Wheat Board

	0	0.1 to 0.5	0.6 to 1.0	1.1 to 1.5	1.5 to 2.0	Not specified
Number of respondents	4	1	4	0	2	1

As to whether it is possible for purchasers to contract for additional cleaning, responses were as follows:

Possible to contract for additional cleaning

	Yes	No	Unknown
Number of respondents	6	9	2

Among the firms responding in the affirmative, * * *.

Quantity discounts and other discounts

Finally, firms indicated that the CWB generally does not offer any quantity or other discounts, with responses as follows:

Quantity and other discounts offered by the Canadian Wheat Board

	Yes	No	Unknown
Number of respondents . . .	***	17	0

* * *. Similarly all *** responding firms reported that the CWB does not offer loyalty or other discounts separate from invoices.

Other Relevant Factors of Competition

Compensation for services provided to the CWB

Firms were asked about services that they provided to the CWB and the compensation that they received for rendering such services. * * *¹¹ reported that they provide a variety of services to the CWB, including: elevation, cleaning, storage, administration of permit books, application and payment of advances. * * * companies were able to provide the total compensation that they received for providing services to the CWB of ***. However, an estimate of compensation received from the CWB for such services was not available from * * *.

Elevation and Storage Payments Received from the Canadian Wheat Board

* * * firms indicated they store non-owned Canadian wheat in Canada for the CWB and eight firms reported that they store non-owned wheat in the United States. Typical elevation charges received for handling non-owned wheat in Canada and in the United States are shown in table 4-10.

Table 4-10
Purchasers: Typical elevation charges for non-owned wheat, marketing years 1996/97 to 2000/01

	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	<i>U.S. dollars per metric ton</i>				
Canadian wheat stored in Canada for the CWB:					
Receiving	***	***	***	***	***
Storage (monthly)	***	***	***	***	***
Load out	***	***	***	***	***
U.S. wheat stored in the United States for outside customers:					
Receiving	1.00-3.67	1.00-3.67	1.00-3.67	1.00-3.67	1.00-3.67
Storage (monthly)	0.94-1.84	0.94-1.84	0.94-1.84	0.94-1.84	0.94-1.84
Load out	1.00-3.67	1.00-3.67	1.00-3.67	1.00-3.67	1.00-3.67

Source: USITC purchasers' questionnaires.

Typical handling margins for owned or purchased wheat in Canada, were reported * * * in the most recent market year of 2000/01. In response to a separate question from those shown in table 4-10, the typical monthly storage charges for non-owned wheat were reported by nine firms to range from \$0.88 to \$1.84 per metric ton in the United States compared to *** in Canada in each of the five years.

¹¹ * * *.

As to the extent that the CWB affects rates for elevation and storage in Canada, * * *.

Price and Protein Comparisons

Firms were requested by the Commission to provide details about their purchases during the period June 1, 1996, through May 30, 2001 of U.S. and Canadian wheat. The questionnaire asked firms to report contracted and delivered prices for shipments to their facility, product characteristics (dockage, test weight, vitreous kernel count, and protein content), and quantities, for the following wheat classes and grades:

- U.S. # 1 HRS
- U.S. # 2 HRS
- U.S. # 1 HAD
- U.S. # 2 HAD
- # 1 CWRS
- # 2 CWRS
- # 1 CWAD
- # 2 CWAD

To help ensure a consistent sample, firms were requested to provide details only about contracts for the largest quantity purchased within the first 10 days of the month for the facility receiving the largest purchase volume of the specific wheat class and grade. Eighteen firms provided 785 individual price contracts for the various months, representing over 12 mmt of U.S. wheat and 0.7 mmt of Canadian wheat. The breakdown for each wheat class and grade, by the number of contracts and the total delivered tonnage purchased under these contracts is reported below:

Number of contracts and tonnage reported for each wheat product

	# 1 HRS	# 2 HRS	# 1 HAD	# 2 HAD	# 1 CWRS	# 2 CWRS	# 1 CWAD	# 2 CWAD
Number of contracts	***	***	***	***	***	***	***	***
Metric tons	***	***	***	***	***	***	***	***

Both in terms of the number of contracts and of tonnage, purchases were predominantly of # 1 HRS, followed by # 1 HAD. Moreover, firms * * *.

Price comparisons

Most price data were reported on a cost-plus-freight (c&f) basis onward to the facility, as requested by the Commission, but some prices were reported freight-on-board (f.o.b.) basis

from the point of origin¹² and numerous “c&f” prices, particularly the contracted prices, were reported relative to a U.S. “gateway” point rather than onward to a firm’s facility.¹³ In such cases, without more detailed knowledge of price-component breakouts for individual contracts, it would be difficult to correlate delivered “price adjustments” with differences between contracted and delivered prices and characteristics. Moreover, the Commission was unable to directly compare prices of individual contracts for corresponding U.S. and Canadian wheat products without more detailed knowledge of differences in individual contract-pricing structures, even if the purchases occurred in the same month or if deliveries occurred in the same month.¹⁴

Two analyses of the reported price data are provided below. First, scatter plots of the all contracted prices by class/grade of wheat over the 1996/97 to 2000/01 marketing years are shown. The majority of the contracted prices are relative to a gateway; thus, these prices are a fairly consistent data set. Second, data on U.S. and Canadian average delivered prices to the Minneapolis area are shown. These data are consistent prices reported on a delivered basis to the same area. Contracted and actual delivered prices are not compared due to the data inconsistency issues discussed above.

Comparison of contracted prices

Time series for monthly averaged contract prices over the period of investigation are displayed in a scatter plot for three corresponding U.S. and Canadian wheat-product pairs in the following figures: # 1 HRS and # 1 CWRS wheat (figure 4-1), # 2 HRS and # 2 CWRS wheat (figure 4-2), # 1 HAD and # 1 CWAD (figure 4-3). The purpose of the data in these figures is to discern any long-term price relationships comparable between the contracted prices of U.S. and Canadian wheat in the U.S. market.

Regarding contracted prices (largely through the “gateway”) in the U.S. market during 1996/97 to 2000/01, reported Canadian Durum prices were above U.S. prices for all comparable months except one. For # 1 CWRS/HRS wheat, price relationships were mixed, with some Canadian prices equal to or above U.S. prices, and others below. Prices for # 2 CWRS wheat were generally higher than those for # 2 HRS wheat, with most contracts reported after January 2000. These observed time series relationships are consistent with previous responses from firms regarding the CWB’s use of grain exchanges for pricing wheat in the U.S. market.

¹² For example, for a firm that contracts wheat purchases for a particular facility specifically on an f.o.b. basis, would have to add back in the freight, for which its delivery records on a c&f basis may not break out or may not break out separately from product-quality adjustments or other provisions. * * *

¹³ For example, another firm reported that purchasing contracts would be priced for shipment to a U.S. “gateway” point, from which a shipment would be split up into smaller lots for distribution among several of the firm’s facilities scattered throughout the United States. However, records of the transportation costs from the “gateway” to individual facilities were not readily available. * * *

¹⁴ For example, if purchase prices in a contract are not specified as a fixed amount, but rather, are specified relative to a particular futures market, price differences among purchase contracts would reflect specification of different futures contract months. * * *

Figure 4-1
Average monthly contracted prices for U.S. #1 HRS and #1 CWRS wheat

* * * * *

Figure 4-2
Average monthly contracted prices for U.S. #2 HRS wheat and Canadian #2 Western Red Spring wheat

* * * * *

Figure 4-3
Average monthly contracted prices for U.S. #1 Hard Amber Durum wheat and Canadian #1 Western Amber Durum wheat

* * * * *

Average delivered prices

The average delivered prices to the Minneapolis area were used to compare U.S. and Canadian prices on a delivered basis. Several firms reported Minneapolis as their U.S. gateway point for their purchases of both Canadian and U.S. wheat, and reported contracts for facilities in the Minneapolis area, the center for U.S. Durum and HRS wheat trading activity. Monthly average prices paid by U.S. purchasers for each wheat class and grade delivered to the Minneapolis area are shown in table 4-11 during 1996/97 to 2000/01.

For # 1 CWRS wheat, *** monthly prices were reported for the 60-month period, while # 1 HRS wheat was reported in *** months. For the *** months in which both # 1 CWRS and # 1 HRS wheat were reported, # 1 CWRS wheat * * * U.S. # 1 HRS in *** months; and # 1 CWRS wheat * * * HRS # 1 wheat in *** months. # 2 CWRS was * * * months with comparable data.

For # 1 CWAD, data for *** months were reported and for # 1 HAD for *** months. For the *** months for which comparable monthly data were reported, # 1 CWAD * * *.

Over-delivery of protein

As discussed in Chapter 3 under “Protein Content,” the higher the percentage of protein in a grade of wheat the higher the value (price) of the wheat, all other things being constant. Most wheat contracts specify the minimum level of protein, and often specify penalties for failure to meet that minimum level. To assess the extent of “over-delivery” of protein content by U.S. purchasers’ sources, differences between contracted and delivered protein levels, by wheat product, are compared in table 4-12, from the 615 contracts reporting both sets of protein data.

For all but Canadian grade # 1 CWRS, most contracted purchases of both U.S. and Canadian wheat tended to over-deliver on the protein content. However, even for # 1 CWRS, contracts tended to meet or exceed the contracted protein specification for final delivery of the product. Out of 510 reported U.S. shipment contracts for HRS and HAD, 332 contracts, or 65 percent, reported protein delivery greater than contract specifications, while 54 percent of contracts for CWRS and CWAD wheat reported over-delivery of protein.

When the magnitudes of over-delivery were sorted into incremental ranges (table 4-13), most of these differences were found to be within 1.0 percentage points above the contracted protein specification for each U.S. and Canadian wheat class, and nearly all were within 1.5 percentage points. No other distinctions were readily apparent between a U.S. wheat and its corresponding Canadian product from the distribution of over-delivery amounts. Over one-fifth of the purchases, in which the delivered protein exceeded the contracted specification, occurred in contracts in which the delivered price also exceeded the contracted price, although no further distinctions about the potential impact share on price was estimateable, given the heterogeneity of the reported pricing data.

Table 4-11

Purchasers: Average delivered prices paid by U.S. purchasers for Hard/Western Red Spring and Durum wheat in the Minneapolis, MN, area, by U.S. and Canadian grade classification, and by month of purchase, June 1996 to May 2001

Purchase month	Hard/Western Red Spring wheat				Durum wheat			
	Grade # 1		Grade # 2		Grade # 1		Grade # 2	
	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
<i>U.S. dollars per metric ton</i>								
1996/97:								
June	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***	***
January	***	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***
1997/98:								
June	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***	***
January	***	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***
1998/99:								
June	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***	***
January	***	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***	***

Table 4-11—Continued

Purchasers: Average delivered prices paid by U.S. purchasers for Hard/Western Red Spring and Durum wheat in the Minneapolis, MN, area, by U.S. and Canadian grade classification, and by month of purchase, June 1996 to May 2001

Purchase month	Hard/Western Red Spring wheat				Durum wheat			
	Grade # 1		Grade # 2		Grade # 1		Grade # 2	
	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
	<i>U.S. dollars per metric ton</i>							
January	***	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***
1999/2000:	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***	***
2000/01:	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***	***
January	***	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***

¹ No transaction reported.

Source: USITC purchasers' questionnaire data.

Table 4-12
Purchasers: Comparisons of contracted protein and actual delivered protein in wheat contracts reported by responding purchasers

Wheat products	Delivered protein is greater than contracted protein	Delivered protein equals contracted protein	Delivered protein is less than contracted protein	Total contracts	Range of contracted protein
	<i>Number of contracts¹</i>				<i>Percent</i>
U.S. # 1 HRS	***	***	***	***	***
U.S. # 2 HRS	***	***	***	***	***
U.S. # 1 HAD	***	***	***	***	***
U.S. # 2 HAD	***	***	***	***	***
Subtotal U.S. wheat	***	***	***	***	***
# 1 CWRS	***	***	***	***	***
# 2 CWRS	***	***	***	***	***
# 1 CWAD	***	***	***	***	***
Subtotal Canadian wheat	***	***	***	***	***
Grand total, all products	***	***	***	***	***

¹ Excludes reported contracts that did not report both contracted protein and delivered protein.

Source: USITC purchasers' questionnaire data.

Table 4-13
Purchasers: Amount of over-delivery of protein in wheat reported by contracts by responding U.S. purchasers

Over-delivery range	# 1 HRS	# 2 HRS	# 1 HAD	# 1 CWRS	# 2 CWRS	# 1 CWAD
<i>Number of contracts¹</i>						
Percentage points:						
0.1 to 0.2	***	***	***	***	***	***
0.3 to 0.5	***	***	***	***	***	***
0.6 to 1.0	***	***	***	***	***	***
1.0 to 1.5	***	***	***	***	***	***
1.6 to 2.0	***	***	***	***	***	***
2.1 to 3.0	***	***	***	***	***	***
3.1 to 4.0	***	***	***	***	***	***
4.1 to 5.0	***	***	***	***	***	***

¹ Excludes reported contracts that did not report both contracted protein and delivered protein.

Source: USITC purchasers' questionnaire data.

CHAPTER 5

SURVEY SUMMARY OF WHEAT EXPORTERS

This chapter summarizes responses to the Commission exporters' questionnaire that asked for specific information on exports of U.S. Hard Red Spring (HRS), Canadian Western Red Spring (CWRS), U.S. Hard Amber Durum (HAD), and Canadian Western Amber Durum (CWAD) wheat exports to eight specific countries (Algeria, Brazil, Colombia, Guatemala, Peru, the Philippines, South Africa, and Venezuela) during 1996/97 to 2000/01.¹ The factors highlighted in the questionnaire included export sales, sales terms, transportation costs, quality, competition from sales of Canadian wheat in these markets, and price and protein comparisons. The questionnaire coverage for the two most recent years, 1999/2000 and 2000/01, was close to 100 percent of the U.S. exports to the eight markets;² however coverage for the three earlier years (1996/97, 1997/98, and 1998/99) was much lower because several large respondents did not have the earlier data available. The respondents also accounted for *** percent of CWAD exports and 61 percent of CWRS wheat exports to the eight markets for the most recent year.³ The low coverage of Canadian Durum exports occurred because the Canadian Wheat Board (CWB) directly exports to some of the eight markets.

Firms were asked to complete the Commission questionnaire if they exported, merchandised, or shipped U.S. and/or Canadian Durum and/or HRS or CWRS wheat during any part of the period June 1, 1996, through May 31, 2001, to the subject countries. The Commission received completed exporter questionnaires from 20 exporting firms. Of these firms, eight also completed the purchaser's questionnaire discussed in Chapter 4.

Respondents indicated varying degrees of experience with the CWB and in exporting Canadian wheat. Three of the responding firms indicated they did not export Canadian wheat to the subject markets, whereas * * * firms made * * * during the time period of concern. Therefore, not all firms answered every question.

General Characteristics of Wheat Exporters

The firms responding to the Commission's questionnaire identified their primary business activities as follows:

¹ The split year refers to the wheat marketing year June 1-May 31.

² Based on USDA and DOC Census data.

³ Data for 2000/01 based on reported Canadian exports to the eight markets, given in tables 2-24 and 2-25.

Exporters primary business activities

	Grain company	Miller	Export trading company	Export broker	Other	All respondents ¹
Number of respondents . . .	13	3	6	3	1	20

¹ Numbers do not sum to total as some respondents reported multiple activities.

Of these respondents, 16 indicated they were affiliated with trading companies, either subsidiary, parent companies, or companies in the corporate family. Most respondents were involved in trading, brokerage, and/or grain sales; 3 firms reported that the primary nature of their business includes milling, although 4 indicated that their activities include milling wheat. Thirteen firms reported that their firm is owned in whole or in part by another firm.

Purchases of Canadian Wheat for Export

Firms were asked the source of their purchases of Canadian wheat, with respondents reporting the following:

Sources of Canadian wheat reported by U.S. exporting firms

	Direct CWB	Licensed CWB agent	Other source	Do not purchase Canadian wheat	All respondents ¹
Number of respondents . . .	7	14	4	3	20

¹ Numbers do not sum to total as some respondents reported multiple activities.

Reporting exporter firms indicated that purchases from the CWB are made in competition with other sources. No firms reported the CWB as their sole source of Canadian wheat, instead they indicated that they purchase from the CWB, licensed CWB agents, or from other sources. Nine firms reported that they do not purchase from the CWB, instead purchasing only from licensed CWB agents or other sources. Two firms reported they purchase 100 percent of their Canadian wheat from other sources.

Of the 20 reporting firms, 5 reported providing services to the CWB. These services included elevation, storage, cleaning, administration of permit books, and advance payment for CWB wheat in Canada.

Export Sales

Exporters were requested to report on whether their exports of Canadian wheat to the eight covered export markets had changed in recent years:

Change in exports of Canadian wheat to eight markets

	Increase	Decrease	No change	All respondents
Number of respondents	8	2	9	19

Reported reasons for increases in exports of Canadian wheat since 1996/97 included:

- Price;
- Increased volumes in 1996/97 due to large supplies of Canadian feed wheat, but lower volumes in 1998/99 and 1999/2000 owing to low supplies of good quality Canadian wheat;
- Increased volumes in 2000/01 owing to Philippine purchases of Canadian wheat; and
- New business ventures, expansion of marketing and trade programs.

One firm reported it had fewer exports sales to the eight markets due to increased competition and contraction in the foreign milling industry.

Tables 5-1 and 5-2 show the data supplied by reporting firms on their exports of U.S. and Canadian Durum, HRS, and CWRS wheat to the eight markets covered in the survey. The data show a decline in U.S. exports of both HAD and HRS wheat relative to Canadian exports of CWAD and CWRS wheat in 2000/01 (figures 5-1 and 5-2). The data also show exports of CWAD and CWRS wheat overtaking U.S. exports of HAD and HRS wheat in 2000/01. Table 5-3 provides a breakout of the exports of the * * * and all other firms.

Buying Patterns and Sales Terms

Respondents were asked to report on their buying patterns and sales terms for Canadian wheat (number of respondents):

	Durum		CWRS	
	Yes	No	Yes	No
Seasonal buying pattern	1	14	1	16
Shift in buying pattern	2	13	4	13
Sales terms differ (U.S. vs. Canadian wheat)	3	11	5	12

One respondent reported that it has a seasonal buying pattern for Canadian Durum and HRS wheats owing to customer demand. Two companies stated that their purchasing patterns had changed for Durum wheat. Of these, one firm indicated that its procurement responsibilities had changed, and another withdrew from marketing of Canadian Durum in the United States. Of the four firms reporting changes in purchases of CWRS wheat, one indicated changes in procurement responsibilities, one reported purchases dropping from little to none, and one indicated its purchases had changed due to additional marketing resources.

Table 5-1
Exporters: Exports of Canadian Durum and CWRS wheat reported by U.S. firms, by market,
1996/97 to 2000/01

Market	Marketing year				
	1996/97	1997/98	1998/99	1999/2000	2000/01
	Quantity (metric tons)				
Exports to Algeria:					
CWAD	0	0	0	0	0
CWRS:	0	0	0	0	0
Exports to Brazil:					
CWAD	***	***	***	***	***
CWRS:	***	***	***	***	***
Exports to Colombia:					
CWAD	***	***	***	***	***
CWRS:	***	503,169	346,371	100,496	239,399
Exports to Guatemala:					
CWAD	***	***	***	***	***
CWRS:	***	***	***	***	***
Exports to Peru:					
CWAD	***	***	***	***	***
CWRS:	***	***	***	***	***
Exports to the Philippines:					
CWAD	0	0	0	0	0
CWRS:	***	***	***	***	***
Exports to South Africa:					
CWAD	0	0	0	0	0
CWRS:	0	0	0	***	0
Exports to Venezuela:					
CWAD	***	***	***	***	***
CWRS:	***	***	***	***	***
Total exports CWAD	***	***	***	***	***
Total exports CWRS:	***	1,404,823	930,839	1,018,890	1,615,404

Source: USITC exporters' questionnaires.

Table 5-2
Exporters: Exports of U.S. HAD and HRS wheat reported by U.S. firms, by market, 1996/97 to 2000/01

Market	Marketing year				
	1996/97	1997/98	1998/99	1999/00	2000/01
	Quantity (metric tons)				
<i>Exports to Algeria:</i>					
HAD	***	***	***	***	***
HRS	0	0	0	0	0
<i>Exports to Brazil:</i>					
HAD	0	0	0	0	0
HRS	0	0	0	0	0
<i>Exports to Colombia:</i>					
HAD	0	0	0	0	0
HRS	***	***	***	***	***
<i>Exports to Guatemala:</i>					
HAD	0	0	0	0	0
HRS	***	***	***	***	***
<i>Exports to Peru:</i>					
HAD	0	0	0	0	0
HRS	***	***	***	***	***
<i>Exports to the Philippines:</i>					
HAD	***	***	***	***	***
HRS	1,147,397	1,180,098	1,534,627	1,394,229	829,513
<i>Exports to South Africa:</i>					
HAD	***	***	***	***	***
HRS	***	***	***	***	***
<i>Exports to Venezuela:</i>					
HAD	***	***	***	***	***
HRS	***	***	***	***	***
Total export HAD	***	***	***	***	***
Total exports HRS	1,283,254	1,325,900	1,757,556	1,607,375	1,102,483

Source: USITC exporters' questionnaires.

Figure 5-1
U.S. and Canadian Durum wheat: Exports to eight selected markets reported by U.S. firms, 1996/97 to 2000/01

* * * * *

Figure 5-2
U.S. HRS and CWRS wheat: Exports to eight selected markets reported by U.S. firms,
1996/97 to 2000/01

* * * * *

Table 5-3
Exporters: Exports of U.S. and Canadian wheat reported by U.S. exporting firms, by size of firm, 1996/97 to 2000/01

Type/size of firm	Marketing year				
	1996/97	1997/98	1998/99	1999/00	2000/01
	<i>Metric tons</i>				
CWAD:					
Three largest multinationals ¹	***	***	***	***	***
Other companies	***	***	***	***	***
Total	***	***	***	***	***
HAD:					
Three largest multinationals ¹	***	***	***	***	***
Other companies	***	***	***	***	***
Total	***	***	***	***	***
CWRS:					
Three largest multinationals ¹	***	***	***	***	***
Other companies	***	***	***	***	***
Total	***	***	***	***	***
HRS:					
Three largest multinationals ¹	***	***	***	***	***
Other companies	***	***	***	***	***
Total	1,283,254	1,325,900	1,757,556	1,607,375	1,102,483

¹ * * *

Source: USITC exporters' questionnaires.

Five firms reported differences in the sales terms between U.S. and Canadian wheat, with reasons cited below:⁴

- Buyers have different quality specifications in each country;
- Canadian wheat is paid for prior to loading and the CWB does not recognize international uniform contract terms or specific quality requirements;
- Generally, terms of sale are negotiated individually with counterparts with the CWB offers its own sale terms;
- No dockage deduction on CWRS is allowed.

Transportation Issues

Respondents were asked whether the cost of transporting wheat from suppliers to any of the eight markets had a significant effect on decisions to purchase wheat from the United States or Canada:

⁴ These data are consistent with information gathered by USITC from interviews with CWB staff on July 12, 2001. CWB staff indicated that, for non-direct CWB exports, the CWB offers wheat for export to its licensed agents at a specified price. The licensed agent then arranges with the foreign buyer for specific export sales.

Transportation costs significant		
	Yes	No
Number respondents . . .	7	13

Six companies indicated that freight cost, in general, to the port is critical in determining the most economical source for all classes of wheat. It applies equally to all origins and destinations. They indicated that both the f.o.b. price of wheat at the respective origins plus the associated transportation costs to the destination influence the delivered cost of wheat. Most buyers select the lowest landed cost including freight and the price. Other firms noted that:

- For shipments to * * *, the freight cost from Vancouver is lower to * * * than shipping HRS or HAD wheat from the U.S. Gulf;
- Buyers compare the freight ex-U.S. and ex-Canada when they come in the market, even if the purchase is f.o.b.

Export pricing basis, U.S. and Canadian wheat

	Canadian wheat			U.S. wheat		
	Fob	Delivered	Both	Fob	Delivered	Both
Number of respondents . .	5	6	2	8	8	3

Responses were evenly divided between f.o.b. shipments and delivered shipments. As one company pointed out, the decision depends on transportation costs and buyer's preference.

Timing of Delivery

Respondents were asked to characterize the timing of the delivery of exports of both U.S. and Canadian wheat. Responses are reported in tables 5-4 and 5-5. In general, these data do not show any significant differences in delivery timing between exports of Canadian and U.S. wheat, most likely reflecting the distances to the markets considered in the questionnaire. Most exports of U.S. and Canadian Durum are shipped for delivery 31 to 90 days after the contract date, with some shipments occurring 11 to 30 days after the contract date. This seems to be a similar pattern for exports of HRS and CWRS wheat.

Pricing Practices

Respondents were asked, if they had experience with the CWB, whether or not the CWB used the grain exchanges/futures markets to set its wheat prices, and to identify the markets and futures contract:

CWB use of futures and identified futures contract/markets

	Yes	No	Minneapolis Spring	Kansas City	Pacific Northwest
Number of respondents	11	1	11	7	2

Table 5-4
Timing of delivery of exports of U.S. and Canadian Durum wheat, reported by U.S. exporters, by shares of export sales and delivery times

For delivery	Percent of sales HAD			Percent of sales CWAD		
	0-25	26-50	51-100	0-25	26-50	51-100
	<i>Number of respondents</i>					
Immediate	0	0	0	0	0	0
Within 10 days	0	0	0	0	0	0
Between 11 to 30 days	7	0	2	5	0	0
Between 31 to 90 days	0	0	9	0	0	6
Between 91 to 180 days	3	1	0	2	1	0
Beyond 180 days	0	0	0	0	0	1

Source: USITC exporters' questionnaires.

Table 5-5
Timing of delivery of exports of HRS and CWRS wheat, reported by U.S. exporters, by shares of export sales and delivery times

For delivery	Percent of sales HRS			Percent of sales CWRS		
	0-25	26-50	51-100	0-25	26-50	51-100
	<i>Number of respondents</i>					
Immediate	1	0	0	0	0	0
Within 10 days	2	0	0	0	1	0
Between 11 to 30 days	8	2	2	6	0	1
Between 31 to 90 days	1	4	12	0	1	10
Between 91 to 180 days	4	2	0	2	1	0
Beyond 180 days	1	0	0	0	0	0

Source: USITC exporters' questionnaires.

Eleven companies stated that the CWB uses grain exchanges/futures markets to set its wheat prices. They indicated that prices for CWRS wheat are pegged to the Minneapolis Spring and/or Kansas City futures. Two other firms noted that the CWB also pegs or benchmarks its prices to U.S. Pacific Northwest cash/basis levels. Two firms noted that Durum pricing is on a flat basis. Respondents were asked to explain the types of discounts received from or premiums paid by their firm for Canadian wheat. Respondents gave the following comments:

- Discount with our premium related to quality;
- Discounts for low falling number (2 comments);
- Protein, dockage, grade;
- Prices might be a discount or premium to the futures contract the sale was priced against.

Respondents were asked to report whether discounts, if provided on Canadian wheat, were typical of U.S. wheat:

Discounts on Canadian wheat purchased for export

	<u>Yes, same discount</u>		<u>No, other discount</u>	<u>No discount</u>	
	<u>CWAD</u>	<u>CWRS</u>		<u>CWAD</u>	<u>CWRS</u>
Number of respondents . . .	4	5	0	5	4

Export Quality Characteristics/Specification

Protein levels

Respondents were asked to provide estimates of the average percentage of delivered CWB shipments during the past 5 marketing years that:

Exceeded contracted protein specification by more than 0.3 percentage points:

- Five firms provided estimates of 0, 8, 30, 95, and 100 percent for CWB shipments exceeding contracted protein specification;
- Seven responded they did not know.

Fell below the contracted protein specification by more than 0.3 percentage points:

- Five firms indicated that no shipments of CWB wheat fall below contracted protein specification;
- Two others provided estimates of 1 percent and 10 percent;
- Five firms indicated they did not know.

Ten respondents indicated that no price adjustment would be made to the CWB wheat if protein exceeded specified levels for Canadian purchases. One company indicated it reviewed each purchase on a case by case basis.

Two companies stated that prices would be lowered if protein levels fell below specified levels. Four companies indicated they had never purchased any wheat from the CWB that had fallen below the contracted level, but two companies expressed confidence that the

CWB would, in fact, give discounts if the protein shipped was less than the contract specified.

Dockage

Respondents were asked if the CWB ever delivers wheat below the maximum foreign material or dockage specified in the contract:

CWB deliveries below maximum dockage			
	Yes	No	Unknown
Number of respondents	6	4	3

One company indicated that 100 percent of all CWB shipments during the past five years were more than 0.2 percent below the specified dockage.

CWB over-delivery on contracts

Respondents were asked to characterize the frequency of CWB over-delivery on contract specifications, with 8 firms indicating that over-delivery is the norm:

Frequency of over-delivery			
	Normal	Minor	Same as under-delivery
Number of respondents	8	2	9

Quantity and other discounts

Respondents were asked whether quantity discounts were offered by the CWB, and whether any discounts were applied separate from invoices:

Quantity/separate discounts				
	Quantity discounts offered		Separate discounts	
	No	Yes	No	Yes
Number of respondents	***	***	***	***

* * *

Competition from Sales of Canadian Wheat

Firms were asked to indicate whether or not they reduced prices of U.S. wheat or rolled back announced price increases to avoid losing sales of U.S. wheat, or lost sales during a marketing year to competitors selling CWAD or CWRS wheat in any of the eight covered markets:

Cut prices, rolled back price increases or lost sales of U.S. wheat

	Cut price		Rollback price increase		Lost sales	
	No	Yes	No	Yes	No	Yes
Number of respondents	17	3	18	0	14	6

Three companies responded that they had cut prices of U.S. wheat to avoid losing sales to Canadian wheat. Competition in * * *. * * *. Competition in * * *. * * *.

Regarding lost sales, * * *. * * *. * * *.

Price and Contract Data

Respondents were asked to report monthly export prices on a c&f basis, as well as, quantity, quality, and technical characteristics for wheat shipped during June 1996 to May 2001. Respondents were requested to report these data for the largest sale or contract signed in the first 10 days of each month. Respondents reported 217 shipments with the net contracted and delivered, landed duty-paid prices in U.S. dollars per metric ton, and the contracted and delivered characteristics⁵ and quantities, for the following 10 wheat classes and grades:

- U.S. # 1 HRS
- U.S. # 2 HRS
- U.S. # 1 HAD
- U.S. # 2 HAD
- U.S. # 3 HAD
- # 1 CWRS
- # 2 CWRS
- # 1 CWAD
- # 2 CWAD
- # 3 CWAD

The price, contract characteristics, and shipment data received from respondents were dispersed over the various wheat classes (HRS, CWRS, HAD, CWAD), grades, and markets as shown in table 5-6. No data were received for any export shipments to Brazil nor data for Canadian export shipments to Algeria, a market served directly by the CWB. There were

⁵ Characteristics included dockage, test weight, vitreous kernel count, and protein content.

Table 5-6

Exporters: Price contracts and wheat shipments reported during 1996/97 to 2000/01, by market, wheat class, and grade

Wheat class/grade	Markets								All markets	Total volume <i>Metric tons</i>
	Algeria	Brazil	Colombia	Guatemala	Peru	Philippines	South Africa	Venezuela		
	<i>Number of contracts</i>									
# 1 HRS			***	***	***	***		***	***	58,000
# 2 HRS				***	***	***	***	***	93	1,296,430
# 1 HAD								***	***	***
# 2 HAD	***						***	***	19	182,322
# 3 HAD	***							***	***	***
# 1 CWRS			***	***	***	***		***	37	448,834
# 2 CWRS			***	***	***	***	***	***	35	314,527
# 1 CWAD				***				***	12	45,500
# 2 CWAD			***	***	***			***	***	40,425
# 3 CWAD					***		***	***	***	***
Total contracts	8		18	27	12	74	12	66	217	2,417,338

Source: USITC exporters questionnaires.

fewer export shipments (than domestic) reported because exporters ship in large vessels, thus lowering the number of individual shipments. Additionally, some export shipments did not fall within the first 10 days of the month, as requested in the USITC questionnaire.

Most of the reported U.S. price and shipment data consisted of exports of # 2 HRS wheat to the Philippines and Venezuela, and exports of # 1 HAD wheat to Algeria, South Africa, and Venezuela. The Canadian price and shipment data largely consisted of exports of # 1 CWRS wheat to Colombia, Guatemala, and Venezuela, followed by exports of # 2 CWRS wheat to Venezuela. Of the *** of # 1 CWRS wheat reported in table 5-6, ***, was shipped in 1997/98. Except for exports of * * *, there is little overlap among reported contracts for comparable grades and wheat classes in the eight specific covered markets.

Differences in contracted and delivered prices and protein

Differences in prices

In contrast to Chapter 4, exporters reported most price data on a c&f basis, thus the Commission was able to use these data to compare contracted and delivered prices. Table 5-7 provides a comparison of the relationship between contracted and total delivered prices for various Canadian and U.S. wheat classes and grades. When contracted and delivered prices were not the same, the net delivered price was often higher than the net contracted price, indicating over-delivery of contracted characteristics. This occurred primarily for the # 1 grades of HRS, CWRS, HAD, and CWAD. These price differences tend to be small. For example, for the *** contracts for # 1 CWRS in which delivered prices were above contract prices, the difference over the contracted prices averaged 1.6 percent, although *** contracts reported differences in the 3 to 6 percent range.

Differences in protein

Table 5-8 reports differences in contracted and delivered protein levels for those contracts reporting both sets of protein data. No protein contract characteristics were reported for any Canadian Durum exports (# 1, # 2, and # 3 CWAD).⁶ For the reported contracts (HRS, CWRS, # 1 HAD), the data indicate that for both U.S. and Canadian wheat, most shipments tend to either over-deliver on contracted protein content or equal the contract specifications in the final delivery of the product. On a percentage basis, the data show that the frequency of over-delivery is higher for Canadian wheat -- 67.1 percent of available contracts for the Canadian wheat reported over-delivery compared to 39.8 percent of reported contracts for U.S. wheat (table 5-8).

⁶ Of the 20 reported export contracts for Canadian Durum wheat of all grades, none reported contracted and delivered protein characteristics. Of the 23 reported export contracts for U.S. Durum wheat, 19 did not report protein data, *** reported no protein differences and *** reported over-delivery of protein ranging from *** percentage points.

Table 5-7

Exporters: Comparisons of contracted delivered price and total delivered price reported by responding U.S. exporters, by wheat class and grade¹

Wheat products	Delivered price greater than contracted price	Contracted price equals total delivered price	Delivered price is less than contracted price	Total contracts
U.S. # 1HRS	***	***	***	***
U.S. # 2HRS	***	***	***	***
U.S. # 1HAD	***	***	***	***
U.S. # 2HAD	***	***	***	***
U.S. # 3HAD	***	***	***	***
Subtotal U.S. wheat	15	80	22	117
# 1 CWRS	***	***	***	***
# 2 CWRS	***	***	***	***
# 1 CWAD	***	***	***	***
# 2 CWAD	***	***	***	***
# 3 CWAD	***	***	***	***
Subtotal Canadian wheat	43	47	2	92
Grand total all products	58	127	24	1209

¹ Eight reported contracts did not report both contracted and total delivered prices and are not included in the table.

Source: USITC exporters' questionnaires.

Table 5-8

Exporters: Range of contracted protein, and comparisons of contracted protein and total delivered protein in shipments reported by responding U.S. exporters, by wheat class and grade

Wheat products	Delivered protein is greater than total contracted protein	Contracted protein equals total delivered protein	Delivered protein is less than contracted price	Total contracts	Range of contracted protein
	<i>Number of contracts</i>				<i>Percent</i>
U.S. # 1 HRS	***	***	***	***	***
U.S. # 2 HRS	***	***	***	***	***
U.S. # 1 HAD	***	***	***	***	***
Subtotal U.S. wheat	39	57	2	98	12.0-14.0
# 1 CWRS	***	***	***	***	***
# 2 CWRS	***	***	***	***	***
Subtotal Canadian wheat	45	20	2	67	12.0-14.0
Grand total all products	84	77	4	165	12.0-14.0

¹ Excludes reported contracts that did not report both contracted protein and total delivered protein.

Source: USITC exporters' questionnaires.

Protein differences for the # 2 HRS wheat, and # 1 and # 2 CWRS wheat contracts reporting protein differences are compared in table 5-9. The data show that most differences in delivered protein, for both U.S. and Canadian wheat, were small -- in the range of 0.1-0.2 percentage points. This indicates the importance to exporters of meeting contract specifications for protein. The shipments for the Canadian wheat, however, show a higher frequency for the larger protein differences. For example, *** percent of the # 1 and # 2 CWRS contracts shown in table 5-9 report protein differences of 0.8 percentage points or greater. In contrast, *** percent of the contracts for # 2 HRS wheat show protein differences of 0.8 percentage points or greater.⁷ Of the reported protein differences in table 5-9, * * * #1 CWRS wheat shipments showed***#2 CWRS wheat shipments showed***percentage point differences, and * * * percentage point differences, all with no upward price adjustments. One # 2 HRS wheat shipment had a protein difference of *** percentage points.

Overall, the data in tables 5-7 and 5-8 indicate that price adjustments do not necessarily correspond to over-delivery of protein. For exports of both U.S. and Canadian wheat, over-delivery of protein (present in 84 contracts) occurred more frequently than any associated upward change in delivered price (present in 58 contracts). Price adjustments appear to be less frequent in relation to over-delivery of protein in the case of both U.S. # 2 HRS and # 2 CWRS wheat, and more frequent for over-delivery of protein (or other characteristics) for both U.S. # 1 HRS and # 1 CWRS wheat. Figure 5-3 provides a scatter plot of differences in contracted and delivered protein content and prices for various wheat, class and grades.

Export price comparisons

The dispersion of the reported contracted and delivered prices over different markets, grades, and wheat classes made it difficult for the Commission to directly compare export prices of U.S. and Canadian wheat. For instance, export prices for wheat destined to Algeria cannot be compared because sales of Canadian wheat are made directly by the CWB, thus no Canadian prices were reported. In the Philippines, although numerous prices were reported for U.S. sales, only a few prices were available for exports of Canadian wheat. This is because the bulk of the sales, which primarily increased during 2000/01, * * *. In Colombia and Guatemala, most sales of Canadian wheat were * * * wheat were reported, and those were mainly to * * *.

⁷ Of the*** # 1 grade U.S. HRS contracts reporting over-delivery of protein, * * * reported over-delivery of 0.3 percentage points, and * * * reported over-delivery of 0.5 percentage points.

Table 5-9

Exporters: Over-delivery and frequency of protein differences for U.S. and Canadian wheat shipments reporting differences between contracted and delivered protein

Protein difference	U.S. # 2 HRS	# 1 CWRS	# 2 CWRS
	<i>Number of contracts</i>		
Percentage points:			
0.1-0.2	21	10	9
0.3-0.4	6	4	9
0.5-0.7	***	***	***
0.8 or higher	***	***	***
Total contracts	33	20	25

Source: USITC exporters' questionnaires.

Figure 5-3

U.S. and Canadian wheat: Contracted and delivered protein and price differences in export contracts

* * * * *

The Venezuela market had the most comparable reported price contracts and these are for # 2 CWRS and # 2 HRS wheat. A scatter plot of the delivered prices reported to this market, shown in figure 5-4, indicate that export prices for # 2 CWRS wheat generally moved in the same pattern with the export prices for # 2 HRS wheat during 1996/97 to 2000/01. The protein content for these export shipments varied, with a reported average delivered protein content for U.S. export shipments of # 2 HRS wheat of *** percent and an average delivered protein content of *** percent for # 2 CWRS wheat. For *** directly comparable delivered prices (sales made in the first 10 days of the contract month), *** delivered export prices for # 2 HRS wheat were lower than the Canadian wheat, while *** were higher. Price data in figure 5-5 for Durum wheat indicate that U.S. prices tend to be *** where U.S. exporters compete with direct sales by the CWB.

Transportation Costs

Exporters were requested to provide information on transport costs to selected foreign destinations from both U.S. and Canadian origination points. The responses are summarized in table 5-10. With few exceptions, transport rates for wheat exports appear to reflect relative distances from Canadian- versus U.S.-origin ports. For example, the U.S. rate paid for shipments from the Gulf of Mexico to *** fell below that paid for Canadian shipments from the St. Lawrence Seaway ***, although the difference was *** per metric ton. Shipments to *** from Thunder Bay, Canada, and Duluth, Minnesota were identical (these are the principal Canadian and U.S. shipping points on the Great Lakes/St. Lawrence Seaway).

In cases where U.S. rates unexpectedly exceeded Canadian rates (for example, in ***), it appears likely due to added U.S. costs (in that case, ***). Only one case is unexplained: the charges paid for shipments to ***.

Figure 5-4
Comparison of U.S. and Canadian contracted net delivered prices for #2 HRS and CWRS wheat designated for Venezuela

* * * * *

Figure 5-5
Comparison of U.S. and Canadian contracted exporter prices for # 1 and # 2 grades HAD,
various markets

* * * * *

Table 5-10
Transport costs to selected foreign ports from U.S. and Canadian origination points, marketing
years 1996/97 to 2000/01

To	From	Marketing year				
		1996/97	1997/98	1998/99	1999/2000	2000/01
<i>U.S. dollars per metric ton</i>						
Algeria	Duluth	***	***	***	***	***
Algeria	Thunder Bay	***	***	***	***	***
Brazil	U.S. Gulf	***	***	***	***	***
	St. Lawrence	***	***	***	***	***
	Vancouver	***	***	***	***	***
Colombia	U.S. Gulf	***	***	***	***	***
	N. Pacific	***	***	***	***	***
	Vancouver	***	***	***	***	***
Guatemala	Vancouver ¹	***	***	***	***	***
	U.S. Gulf	***	***	***	***	***
	Vancouver	***	***	***	***	***
Peru	Vancouver ¹	***	***	***	***	***
	U.S. Gulf	***	***	***	***	***
	Vancouver	***	***	***	***	***
Philippines	Vancouver ¹	***	***	***	***	***
	W. Canada	***	***	***	***	***
	Portland	***	***	***	***	***
South Africa	Vancouver	***	***	***	***	***
	Vancouver ¹	***	***	***	***	***
	U.S. Gulf	***	***	***	***	***
Venezuela	St. Lawrence	***	***	***	***	***
	Vancouver	***	***	***	***	***
	U.S. Gulf	***	***	***	***	***
	Quebec City	***	***	***	***	***
	St. Lawrence	***	***	***	***	***
	St. Lawrence ¹	***	***	***	***	***
	St. Lawrence ¹	***	***	***	***	***

¹ Different firm(s) responding.

Source: USITC exporters' questionnaires.

APPENDIX A
REQUEST LETTER FROM USTR

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

Handwritten: 04/02/01
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BUCKET NUMBER
2184

MAR 30 2001

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RECEIVED
OFFICE OF THE PRESIDENT
U.S. TRADE REPRESENTATIVE
MAR 31 11 21 AM '01

Honorable Stephen Koplan
Chairman
U.S. International Trade Commission
Washington, D.C. 20436

Dear Chairman Koplan:

PUBLIC PROTECTION

I request that the U.S. International Trade Commission conduct an investigation, pursuant to section 332 of the Tariff Act of 1930, as amended, of the conditions of competition between the U.S. and Canadian wheat industries in the United States and in third-country markets. In October 2000, the U.S. Trade Representative (USTR) initiated an investigation under section 301 of the Trade Act of 1974 concerning the acts, policies, and practices of the Canadian Wheat Board (CWB) and the Government of Canada. In the original 301 petition and comments provided to USTR in response to a November 16, 2000, *Federal Register* notice, representatives of the U.S. wheat industry allege a number of potentially trade distorting practices, including CWB standing offers to undersell irrespective of market conditions in Canada, the United States and third markets, and a CWB practice of regularly supplying protein levels that are higher than the levels specified in the sales contracts.

Specifically, the Commission's study should provide the following information, to the extent possible:

- (1) A summary of a survey of U.S. hard red spring and durum wheat purchasers, including millers and importers, as to the conditions of competition between U.S. and Canadian wheat during the five most recent years, including such data as quantity and prices, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition;
- (2) A summary of a survey of U.S. hard red spring and durum wheat exporters as to conditions of competition in key foreign markets in Latin America, the Philippines, and other significant markets, between U.S. and Canadian wheat during the five most recent years, providing such data as quantity and prices, lost sales of U.S. versus Canadian wheat, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition;
- (3) A summary of the current conditions of wheat trade between the United States and Canada, including relevant information on prices, exchange rates, transportation, marketing practices, U.S. and Canadian farm policies, and other significant economic factors that might be relevant.

Honorable Stephen Koplan
Page Two

In accordance with USTR policy implementing Executive Order 12958 entitled "Classified National Security Information," I direct you to mark as "confidential," for a period of 10 years, such portions of the report and related working papers that contain the Commission's summation of conditions of competition between U.S. and Canadian wheat. Consistent with the Executive Order, this information is being classified on the basis that it concerns economic matters relating to the national security. I also request that you submit an outline of this report as soon as possible to enable USTR officials to provide you further guidance on the extent and duration to which portions of the report require classification. Based on this outline, a USTR official with original classification authority will provide you written instructions.

The Commission should submit the confidential report to the USTR by no later than September 24, 2001. At the direction of USTR, the Commission should issue a public version of its report with any business confidential or national security confidential information deleted.

Sincerely,

A handwritten signature in cursive script that reads "Robert B. Zoellick". The signature is written in dark ink and is positioned above the printed name.

Robert B. Zoellick

Reader

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

ID

Recd: 9/21/01

ER
SE

332-429

SEP 21 2001

The Honorable Stephen Koplan
Chairman
U.S. International Trade Commission
Washington, D.C. 20436

Dear Chairman Koplan:

On March 30, 2001, the United States Trade Representative (USTR) wrote to request that the Commission conduct an investigation, pursuant to section 332 of the Tariff Act of 1930, as amended, of the conditions of competition between the U.S. and Canadian wheat industries, and that the Commission should submit its report to the USTR by no later than September 24, 2001. I am writing to confirm that we are modifying that request so that the Commission should submit its report to the USTR by no later than October 1, 2001.

000002

Sincerely,



Allen F. Johnson
Chief Agriculture Negotiator

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

Recd: 9/28/01
ER
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SEP 28 2001

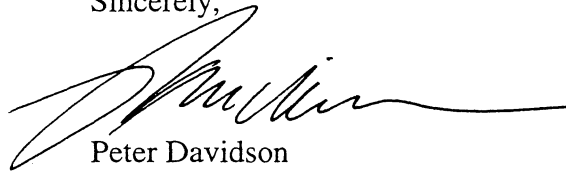
The Honorable Stephen Koplan
Chairman
U.S. International Trade Commission
Washington, D.C. 20436

Dear Chairman Koplan:

On March 30, 2001, the United States Trade Representative wrote to request that the Commission conduct an investigation, pursuant to section 332 of the Tariff Act of 1930, as amended, of the conditions of competition between the U.S. and Canadian wheat industries, and that the Commission should submit its report to USTR by no later than September 24, 2001. On September 21, 2001, we extended the due date for the report until October 1, 2001.

On September 27, 2001, the North Dakota Wheat Commission – the petitioner in the underlying investigation under sections 301-309 of the Trade Act of 1974 – requested a 90-day delay in the conclusion of that investigation. In light of the NDWC request, I am writing to confirm that we are modifying our request so that the Commission should submit its report to USTR by no later than October 9, 2001.

Sincerely,



Peter Davidson
General Counsel

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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

OCT - 5 2001

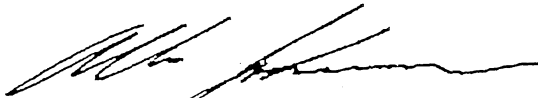
The Honorable Stephen Koplan
Chairman
U.S. International Trade Commission
Washington, D.C. 20436

Dear Chairman Koplan:

On March 30, 2001, the United States Trade Representative wrote to request that the Commission conduct an investigation, pursuant to section 332 of the Tariff Act of 1930, as amended, of the conditions of competition between the U.S. and Canadian wheat industries, and that the Commission should submit its report to USTR by no later than September 24, 2001. On September 21, 2001, we extended the due date for the report until October 1, 2001, and extended the due date again on September 28 until October 9, 2001.

We are still considering the request of the North Dakota Wheat Commission of September 27 – the petitioner in the underlying investigation under sections 301-309 of the Trade Act of 1974 – requesting a 90-day delay in the conclusion of that investigation. In light of the NDWC request, I am writing to confirm that we are modifying our request so that the Commission should submit its report to USTR by no later than October 11, 2001.

Sincerely,



Allen F. Johnson
Chief Agriculture Negotiator

10/10/01 WED 22:40 FAX

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

OCT 11 2001

The Honorable Stephen Koplan
Chairman
U.S. International Trade Commission
Washington, D.C. 20436

Dear Chairman Koplan:

On March 30, 2001, the United States Trade Representative wrote to request that the Commission conduct an investigation, pursuant to section 332 of the Tariff Act of 1930, as amended, of the conditions of competition between the U.S. and Canadian wheat industries, and that the Commission should submit its report to USTR by no later than September 24, 2001. We previously extended the due date for the report until October 11, 2001.

We request that in addition to the classified report requested on March 30, 2001, that the Commission also prepare a public version of the report with any confidential business information removed. I am writing to confirm that we are modifying our request so that the Commission should submit both reports to USTR by no later than November 1, 2001.

Sincerely,



Allen F. Johnson
Chief Agriculture Negotiator

APPENDIX B
FEDERAL REGISTER NOTICE

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC 20436

Wheat Trading Practices: Competitive Conditions Between U.S. and Canadian Wheat

(Investigation Nos. 332-429)

AGENCY: United States International Trade Commission (ITC)

ACTION: Initiation of investigation and notice of hearing

EFFECTIVE DATE: April 12, 2001

SUMMARY: Following receipt of a request on April 2, 2001, from the United States Trade Representative (USTR), under section 332(g) of the Tariff Act of 1930, the Commission instituted investigation No. 332-429, *Wheat Trading Practices: Competitive Conditions Between U.S. and Canadian Wheat*.

FOR FURTHER INFORMATION CONTACT: For general information, contact John Reeder (202-205-3319; reeder@usitc.gov), or Roger Corey (202-205-3327; corey@usitc.gov), Agriculture and Forest Products Division, Office of Industries. For information on legal aspects, contact William Gearhart (202-205-3091; wgearhart@usitc.gov), Office of the General Counsel, U.S. International Trade Commission. Hearing impaired persons can obtain information on these studies by contacting the Commission's TDD terminal on (202) 205-1810. General information concerning the Commission may also be obtained by accessing its internet server (<http://www.usitc.gov>). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS-ON-LINE) at <http://dockets.usitc.gov/eol/public>.

BACKGROUND: As requested by the USTR, the Commission will provide the following information in its report to the extent possible:

- a summary of a survey of U.S. Hard Red Spring wheat and Durum wheat purchasers, including wheat millers, as to the conditions of competition between U.S. and Canadian wheat during the 5 most recent years, including such data as quantity and prices, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition;
- a summary of a survey of U.S. Hard Red Spring wheat and Durum wheat exporters as to conditions of competition in key foreign markets in Latin America, the Philippines and other significant markets, between U.S. and Canadian wheat during the 5 most recent years, providing such data as quantity and prices, lost sales of U.S. wheat versus Canadian wheat, technical considerations in the purchase and sale of U.S. versus Canadian wheat, and other relevant factors of competition; and
- a summary of the current conditions of wheat trade between the United States and Canada, including relevant information on prices, exchange rates, transportation, marketing practices, U.S. and Canadian farm policies, and other significant economic factors that might be relevant.

The Commission plans to submit the confidential report to USTR by September 24, 2001, as requested.

The letter stated that the Office of the USTR in October 2000 initiated an investigation under section 301 of the Trade Act of 1974 concerning the acts, policies, and practices of the Canadian Wheat Board (CWB) and the Government of Canada, and that in the course of that investigation representatives of the U.S. wheat industry alleged a number of potentially trade distorting practices, including CWB standing offers to undersell irrespective of market conditions in Canada, the United States and third markets, and a CWB practice of regularly supplying protein levels that are higher than the levels specified in the sales contracts.

PUBLIC HEARING: A public hearing in connection with the investigation will be held at the U.S. International Trade Commission Building, 500 E Street SW, Washington, DC, beginning at 9:30 a.m. on June 6, 2001. All persons shall have the right to appear, by counsel or in person, to present information and to be heard. Requests to appear at the public hearing should be filed with the Secretary, United States International Trade Commission, 500 E Street SW, Washington, DC 20436, no later than 5:15 p.m., May 23, 2001. Any prehearing briefs (original and 14 copies) should be filed not later than 5:15 p.m., May 25, 2001; the deadline for filing post-hearing briefs or statements is 5:15 p.m., June 18, 2001. In the event that, as of the close of business on May 24, 2001, no witnesses are scheduled to appear at the hearing, the hearing will be canceled. Any person interested in attending the hearing as an observer or non-participant may call the Secretary of the Commission (202-205-1806) after May 24, 2001, to determine whether the hearing will be held.

WRITTEN SUBMISSIONS: Commercial or financial information that a person desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All written submissions must conform with the provisions of section 201.8 of the Commission's Rules of Practice and Procedure (19 C.F.R. 201.8). All submissions requesting confidential treatment must conform with the requirements of section 201.6 of the Commission's Rules (19 C.F.R. 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons in the Office of the Secretary to the Commission. To be assured of consideration, written statements relating to the Commission's report should be submitted at the earliest possible date and should be received not later than June 18, 2001. All submissions should be addressed to the Secretary, United States International Trade Commission, 500 E Street SW., Washington, DC 20436. The Commission's rules do not authorize filing submissions with the Secretary by facsimile or electronic means. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

LIST OF SUBJECTS: Wheat, imports, exports, wheat trading practices, Canadian Wheat Board, Durum wheat, Hard Red Spring wheat

By order of the Commission.



Donna R. Koehnke
Secretary

Issued: April 13, 2001

APPENDIX C
HEARING PARTICIPANTS

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject: Wheat Trading Practices: Competitive Conditions Between U.S. and Canadian Wheat
Inv. No.: 332-429
Date and Time: June 6, 2001 - 9:30 a.m.

Sessions were held in connection with the investigation in the Main Hearing Room, 500 E Street, SW, Washington, DC

APPEARANCES

On behalf of the International Trade Commission:

Commissioners:

STEPHEN KOPLAN, CHAIRMAN
DEANNA TANNER OKUN, VICE CHAIRMAN
LYNN M. BRAGG, COMMISSIONER
MARCIA E. MILLER, COMMISSIONER
JENNIFER A. HILLMAN, COMMISSIONER
DENNIS M. DEVANEY, COMMISSIONER

Staff:

DONNA R. KOEHNKE, SECRETARY
WILLIAM R. BISHOP, STAFF ASSISTANT
JOHN REEDER, PROJECT LEADER
KARL TSUJI, DEPUTY PROJECT LEADER
ROGER COREY, INDUSTRY ANALYST
CATHY JABAR, CHIEF, AGRICULTURE & FOREST
PRODUCTS DIVISION
WILLIAM GEARHART, ATTORNEY

Congressional Appearances:

THE HONORABLE MAX BAUCUS
United States Senator, State of Montana

THE HONORABLE KENT CONRAD
United States Senator, State of North Dakota

THE HONORABLE CONRAD BURNS
United States Senator, State of Montana

THE HONORABLE LARRY E. CRAIG
United States Senator, State of Idaho

THE HONORABLE BYRON L. DORGAN
United States Senator, State of Idaho

THE HONORABLE EARL POMEROY
United States House of Representatives
State of North Dakota

On behalf of North Dakota Wheat Commission (NDWC):

ALAN LEE, Chairman, NDWC
NEAL FISHER, Administrator of the NDWC
ALAN BERGMAN, Vice President
National Farmers Union
ERIC AASMUNDSTAD, President
North Dakota Farm Bureau
BARBARA SPANGLER, Executive Director, Wheat Export
Trade Education Committee (WETEC)
PAUL DICKERSON, Vice President,
Overseas Operations, U.S. Wheat Associates
ANDREW WECHSLER, Managing Director
LECG, LLC
CHARLES A. HUNNICUTT, Esquire
Robins, Kaplan, Miller & Ciresi, LLP
Washington, DC

On behalf of North American Miller's Association (NAMA):

JOHN C. MILLER, President, Miller Milling Company

-END-

APPENDIX D
LITERATURE REVIEW ON RECENT
ECONOMIC STUDIES ON THE CWB

The starting point of this economic literature review is the overriding issue of whether or not there exists CWB market power that enables it to influence and alter prices of like consignments within and across export markets; to practice price discrimination; to charge export price premiums not otherwise obtainable without single desk authority; and to practice price leadership (hereafter, CWB's alleged market power and pricing capabilities).

There is far more literature that argues that the alleged CWB market power and pricing capabilities exist than literature arguing that such market power and pricing capabilities do not exist. Further, certain researchers who have argued that the CWB market power and pricing capabilities exist have generated allegedly stronger empirical evidence for their arguments, as they were repeatedly granted direct access to confidential CWB contracts data. However, the validity of some of the studies' results may be questioned, given the results' foundation on confidential data. Their empirical work cannot be replicated and verified, their methods cannot be examined and evaluated, and their inferential validity cannot be assessed.

Literature that has argued that the CWB market power and pricing capabilities do not exist have argued strongly on the theoretical side, but may have generated weaker empirical evidence because they were not given access to CWB contracts data, and had to rely on theory, logic, and test evidence from the use of secondary or indirect data. Literature presenting evidence supporting the existence of the alleged CWB market power and pricing capabilities is reviewed first, followed by a review of literature arguing against the existence of these alleged CWB capabilities. Throughout, Can\$ and US\$ denote Canadian and U.S. dollars, respectively.

In some cases, the reviewed studies included barley -- the other CWB grain -- and covered the period outside the scope of this investigation (i.e., 1996/97 to 2000/01). As a result, some policies considered, such as the U.S. Export Enhancement Program for wheat (EEP), do not exist at the present time, although some of the more recent literature defending the CWB's market power and pricing capabilities appears reluctant to acknowledge this. In addition, barley is outside the scope of the Commission investigation. Therefore, these are not directly germane to this investigation, although some arguments are relevant to Canadian wheat sales and world wheat markets.

Literature Supporting the Existence of CWB Market Power and Pricing Capabilities

Several researchers examined the theoretical arguments supporting the existence of the CWB's market power and pricing capabilities. Generally, Schmitz and Furtan¹ argue that because the CWB is a monopolistic competitor in the world wheat and barley markets, and has a single desk authority of export supply of such grains, it consequently has the ability to regulate supply and hence price-discriminate.² Carter notes that under such an imperfectly competitive scenario, where different export markets can be separated and are without

¹ Andrew Schmitz and Hartley Furtan. *The Canadian Wheat Board: Marketing in the New Millennium* (Regina, Saskatchewan, Canada: Canadian Plains Research Center, 2000).

² *Ibid.*, pp. 69-71.

arbitrage, relatively higher prices may be charged to markets with the less price-elastic demand, and lower prices charged to markets with the more price-elastic demand.³ Schmitz and Furtan⁴ further argue that comparably classed wheat consignments of different countries are somewhat substitutable for each other, but not perfectly so, for a number of quality-based or perceived reasons: some markets deem CWB wheat of superior quality and some markets may consider the single-desk CWB supplier as a surer bet of procuring the most reliable supply and over the longest time frame. Under such conditions, their argument is that the CWB can limit supply of this origin-differentiated product and hence manipulate price so as to enhance revenues and prices in one market over another.

Brooks⁵ argues that the CWB, through the early 1990's, was able to use its single-desk authority over Western Canadian barley export sales and charge higher prices in some markets than importers in other markets were willing to pay because the CWB's authority enabled it to exploit "structural" price differentials (premiums) that existed across barley export markets.⁶ That is, the CWB used its single desk power to focus on markets without EEP subsidies and lower prices (and margins), and to emphasize non-subsidized markets where prices and margins were higher. He offered an example: the CWB was able to charge higher barley prices in Japan than were obtainable in certain other markets because U.S. barley sales to Japan were not eligible for subsidies of the then-active U.S. Export Enhancement Program (hereafter, EEP program), while sales to many other markets were.⁷ Brooks then states that without the CWB's single-desk authority over Western Canadian barley sales, such structural price differentials would be bid away, without fully explaining why.

Goodwin and Smith⁸ examined price discrimination behavior in international wheat markets. They concluded that the CWB pursued a worldwide strategy that included price discrimination. They reported that the CWB charged higher prices in U.S., Canadian, and Asian markets, and charged lower prices in the Philippines and South Africa.

³ Colin A. Carter, "The Economics of a Single North American Barley Market," *Canadian Journal of Agricultural Economics* (1993) vol. 243, no. 3, pp. 243-255.

⁴ Andrew Schmitz and Hartley Furtan. *The Canadian Wheat Board: Marketing in the New Millennium* (Regina, Saskatchewan, Canada: Canadian Plains Research Center, 2000), pp. 69-71.

⁵ Harvey G. Brooks, "First, Let's Assume We Have a Can Opener: An Analysis of the Economics of a Single North American Barley Market," *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 271-281.

⁶ *Ibid.*, pp. 279-280.

⁷ *Ibid.*, p. 279.

⁸ B.K. Goodwin and V.H. Smith, "The Impact of Canadian and U.S. Farm Policies on Grain Production and Trade," Unpublished paper prepared for the Wheat Export Trade Education Committee, Department of Agricultural Economics, Montana State University, Bozeman, MT, 1995. Note that because of the difficulties of obtaining this paper, Commission staff relied on the summary of this work provided in Andrew Schmitz and Hartley Furtan. *The Canadian Wheat Board: Marketing in the New Millennium* (Regina, Saskatchewan, Canada: Canadian Plains Research Center, 2000), p. 191.

Not only did Furtan, Kraft, and Tyrchniewicz⁹ conclude that the CWB can and has successfully extracted price premiums through price discrimination in world wheat markets, they actually generated an array of empirical estimates of such premiums (table D-1). Furtan, Kraft, and Tyrchniewicz (FKT) were granted access to confidential daily CWB contracts information for all CWB export sales of wheat from 1980/81 through 1993/94 (more than 10,000 contracts). They compiled sales-weighted CWB prices and standardized these prices by market, location of shipment starting point, transportation costs, and grade. They then compared these prices with comparably classed non-CWB wheat export sales prices that they similarly standardized for point of shipment, market, transport costs, and grade. Data were then compiled into monthly prices, and two basic comparisons were made: comparison of Canadian prices of similarly classed wheat consignments across Canadian export markets, and then comparison of Canadian and non-Canadian export prices for similarly classed wheat sales within specific markets. Basic tools used included mean difference tests on differences between Canadian prices across markets and between Canadian and non-Canadian prices within selected markets, as well as various econometric (regression) tools. FKT generated a number of empirical results. First, FKT concluded that the CWB has been able to generate wheat price premiums on all classes of (non-feed) wheat exports throughout the full 1980/81 to 1993/94 period (hereafter full period), as well as during subperiods before and during active implementation of the EEP program.¹⁰ They estimated that on average during the full period, and for all sales of wheat, the CWB's single desk authority has generated an additional Can\$260 million annually for the CWB pool accounts. Second, FKT regression results suggest that CWB export prices were on average almost US\$20 per metric ton higher than comparable U.S. prices during the full period. Third, CWB premiums were higher (1) on sales of higher quality wheat, (2) when high quality wheat was in short supply, and (3) during subperiods when EEP subsidies were actively implemented. And fourth, FKT generated a number of empirical estimates of average CWB wheat price premiums:

- Can\$ 13.15 per metric ton for all CWB wheat sales during the full 1980/81 to 1993/94 period, with Can\$12.13 per metric ton during the 1980/81 to 1985/86 subperiod before EEP and Can\$14.46 per metric ton during the 1985/86 to 1993/94 subperiod of active EEP implementation.
- higher average premiums on prices of higher quality Canadian wheat exports of Can\$ 20.34 per metric ton for the full period; Can\$ 14.80 per metric ton for the subperiod before EEP, and Can\$ 23.41 per metric ton for the 1985/86 to 1993/94 subperiod when EEP was actively implemented.¹¹

⁹ W.H. Furtan, D.F. Kraft, and E.W. Tyrchniewicz, "Can the Canadian Wheat Board Extract Monopoly Rents? The Case of the Spring Wheat Market," *International Journal of the Economics and Business* (1999), vol. 6, no. 3, pp. 417-437; and a Commission staff telephone conversation with author Dr. W.H. Furtan, for various clarifications on the material in the Furtan, Kraft, and Tyrchniewicz article, June 26, 2001.

¹⁰ *Ibid.*, pp.427-429.

¹¹ *Ibid.* See also Andrew Schmitz. *The Canadian Wheat Board: Marketing in the New Millennium* (Regina, Saskatchewan, Canada: Canadian Plains Research Center, 2000), pp. 184-186.

Table D-1
Furtan, Kraft, and Tyrchniewicz's Estimates of CWB Wheat Export Price
Premiums

Market year	Sales-weighted premiums	
	Sales of CWRS#1	Sales of CWRS #'s 1, 2, & 3
	In U.S. dollars (<i>per metric ton</i>)	
1980/81	19.24	14.48
1981/82	13.56	11.14
1982/83	11.23	10.42
1983/84	8.83	7.38
1984/85	8.11	6.84
1985/86	18.53	9
		9.94
1986/87	13.29	8.69
1987/88	15.05	11.45
1988/89	25.37	17.27
1989/90	18.42	12.4
1990/91	11.43	10.7
1991/92	10.84	8.82
1992/93	28	11.33
1993/94	26.62	9.6
Average, 1980/81 to 1993/94, Full period	12.19	10.05
Average, 1980/81 to 1984/85, Pre- EEP period	18.62	11.13
Average, 1985/86 to 1993/94 period of active EEP implementation	16.33	10.75

Source: Calculated from the wheat price premium estimates in Canadian dollars in W.H. Furtan, D.F. Kraft, and E.W. Tyrchniewicz, "Can the Canadian Wheat Board Extract Monopoly Rents? The Case of the Spring Wheat Market," *International Journal of the Economics and Business* (1999), vol. 6, no. 3, pp. 427-429. Commission staff converted the estimates to U.S. dollars using a rate calculated from the annual U.S./Canadian "r" rates published by the International Monetary Fund. Note that the premiums are in market years, and the exchange rates are based on calendar year.

Brooks and Schmitz¹² were provided access to similar confidential contracts data for 1980/81 to 1994/95 CWB barley export sales as FKT were provided for CWB wheat sales. Brooks and Schmitz used these data to construct monthly CWB barley export prices for the U.S., Japanese, and the rest-of-the-world or ROW markets (PUS, PJPJN, and PROW, respectively). They then constructed the following three price-difference time series and then statistically tested for the significance of these differences using mean difference tests: (PJPJN-PUS), (PJPJN-PROW), and (PUS-PROW). A statistically significant (insignificant) difference suggested the existence (nonexistence) of a CWB premium in the first market over the second. Brooks and Schmitz generated similar results for CWB barley export sales as FKT realized for CWB wheat sales. The Brooks/Schmitz results suggest that the CWB realized average premiums of nearly Can\$ 21/MT in the Japanese over the ROW market;

¹² Harvey Brooks and Troy G. Schmitz, "Price Discrimination in the International Grain Trade: The Case of Canadian Wheat Board Feed Barley Exports," *Agribusiness* (1999) vol. 15, no. 3, pp. 313-322.

a premium of more than Can\$ 25/MT in the Japanese over the U.S. market; and a smaller Can\$ 4.46/MT premium in the U.S. over the ROW market. Their results suggest that barley price premiums were realized during the entire or full period, as well as during periods before and coinciding with the EEP program. Generally, CWB barley price premiums were higher when the EEP program was active.

Gray, Ulrich, and Schmitz¹³ provide arguments for continued CWB single-desk authority over Canadian barley export sales, and their article serves as a rebuttal to Carter's¹⁴ arguments on the benefits of exempting Canadian barley export sales from such authority. Gray, Ulrich, and Schmitz (GUS) use theory, analysis of past and then-current market conditions data, and simulation results of a Canadian agricultural policy model to demonstrate that the CWB can and has successfully exploited its power as a monopolistic competitor in world barley markets, and has enhanced Canadian farm revenues. Such revenue enhancement was accomplished through extraction of substantial price premiums by having price-discriminated across its barley export markets by having charged higher prices in markets with price-inelastic barley import demands (and lower prices in markets with more elastic import demands).¹⁵

Alston and Gray¹⁶ recently published an article where they conclude that compared to the U.S. system during August, 1985-July, 1995 when the U.S. EEP program for wheat exports was active, the Canadian regime under the current setting of a price-discriminating, single-desk CWB was the most efficient way of supporting Canadian wheat farmers. The authors walk the reader through a graphical analysis of the welfare implications of the current Canadian system with some setting(s) which resembled what is now the long-defunct 1985 to 1995 U.S. system under active EEP subsidies.¹⁷ They then simulated an empirical regional policy model of Canadian production, consumption, and trade to verify their comparative graphical results under alternatively hypothesized levels of market competitiveness. It is curious that Alston and Gray expended such effort in this year-2000 article to compare the current Canadian system under the CWB with a U.S. system that has long ceased to exist (EEP has not been actively implemented since July 1995).

¹³ R. Gray, A. Ulrich, and A. Schmitz, "A Continental Barley Market: Where are the Gains?," *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 257-70.

¹⁴ Colin A. Carter, "The Economics of a Single North American Barley Market," *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 243-255.

¹⁵ R. Gray, A. Ulrich, and A. Schmitz, "A Continental Barley Market: Where are the Gains," *Canadian Journal of Agricultural Economics* (1993), vol. 41, no. 3, pp. 257-270.

¹⁶ Julian M. Alston and Richard Gray, "State Trading vs. Export Subsidies: The Case of Canadian Wheat," *Journal of Agricultural and Resource Economics* (2000), vol. 25, no. 1, pp. 51-67.

¹⁷ *Ibid.*, pp. 52-59.

Bessler, Yang, and Wongcharupan (BYW)¹⁸ employed a series of econometric and directed acyclic graph methods on about 20 years of monthly wheat price data of the world's five major wheat exporters -- the United States, Canada, the EU, Australia, and Argentina. They generated evidence on wheat export price movements of these countries to discern which countries, if any, exhibited market power through price leadership. The implication in the literature on imperfectly competitive markets is that entities with the most market power act as price leaders, which are followed by pricing behavior of less powerful, and presumably more competitive, entities. BYW generated a number of results: that Canada is the predominant world wheat price leader, with the CWB actions driving the behavior of the four other wheat exporters' prices; that the U.S. market behavior, through price, significantly influences EU, Argentine, and Australian export prices, but not Canadian export prices; and finally, Australia, the exports of which are also controlled by a single-desk authority (Australian Wheat Board), seemed to be the world's primary price taker.

Mohanty, Meyers, and Smith¹⁹ (MMS) employed a Johansen vector error correction (VEC) approach for cointegrated variables and examined the monthly wheat export prices of the world's five major wheat exporters/competitors (United States, Canada, EU, Argentina, and Australia) for the period of January 1981 through June 1993, which encompasses much of the time during which the U.S. EEP program was being implemented, and generally concluded that the CWB's single desk authority had market power as evidenced by the ability to act as price leader in world wheat markets. First, they concluded that the CWB price behavior influences Canadian prices. Second, the Australian Wheat Board's (AWB) influences U.S. price, although such interchange was a bi-directional one, with U.S. prices having influenced AWB prices also. Third, the U.S. price seemed to take on some leadership role, with having influenced all other examined prices except the Canadian price. And finally, U.S. price seems dependent on Canadian price, although Canadian price behavior seems independent of U.S. pricing behavior. Actually, MMS' evidence suggested that Canadian price was independent of all other examined export prices.

¹⁸ David A. Bessler, Jian Yang, and Metha Woncharupan (BYW), "Price Dynamics in the International Wheat Market: Modeling with Error Correction and Directed Acyclic Graphs," Unpublished paper under refereed journal review, Department of Agricultural Economics, Texas A&M University, College Station, Texas, United States, January 2001, pp. 1-32). More specifically, BYW estimate a monthly vector error correction (VEC) model using monthly 1981-(mid)1999 data; conduct a series of hypothesis tests on the VEC model's estimated parameters; reconstruct a vector autoregression (VAR) in logged levels using the VEC estimates; and then impose a Bernanke-type ordering on the VAR which embeds causality flows gleaned from the directed acyclic graph methods of Scheines, Spirtes, Blymore, and Meek. The Bernanke VAR was then used to generate and analyze well-known impulse response and forecast error variance decomposition results. For the directed acyclic graph methods, see R. Scheines, P. Spirtes, C. Glymour, and C. Meek. *TETRAD II: Users' Manual* (NJ: Lawrence Erlbaum Associates, Inc. 1994), and P. Spirtes, C. Glymour, and R. Scheines. *Causation, Prediction, and Search* (Cambridge, MA: MIT Press, 2000).

¹⁹ Samerendu Mohanty, William H. Meyers, and Darnell B. Smith, "A Reexamination of Price Dynamics in the International Wheat Market," *Canadian Journal of Agricultural Economics* (1997) vol. 47, no. 1, pp. 21-29.

Literature Arguing Against the Existence of CWB Market Power and Pricing Capabilities

A good starting point for reviewing this literature would be a summary of the theoretical arguments against such CWB abilities offered collectively by Carter and Loyns²⁰ and Carter.²¹ At the very core of their position is the basic argument: that world wheat supplies are often fungible and substitutable; that the CWB clients are free to purchase from non-CWB sources as well as the CWB; and that there is no reason to expect that such clients will persistently pay (in the form of CWB premiums) more than is necessary. Further, Carter and Loyns,²² Carter,²³ and Schmitz and Furtan²⁴ note that such a power to price-discriminate requires that the seller, here the CWB, operate under two conditions: (1) that the product be sufficiently differentiated or unique, and have few substitutes, so that supply and sales can be “managed,” and (2) that the seller charge higher prices (price premiums) into markets with a price-inelastic import demand for the product. Carter and Loyns²⁵ and Carter²⁶ argue that significant portions of CWB export sales of barley and wheat are not sold under such conditions. Using historical trade pattern and wheat class data, Carter and Loyns²⁷ argue that the CWB is likely a price taker, rather than a price discriminator, because a large portion of CWB wheat export sales are conducted in the lower-quality submarkets where products of different exporters are fungible, buyers are more price-conscious than quality-appreciative, and where supplies are highly substitutable. Such markets are likely characterized as having more price-elastic than price-inelastic import demands, making the ability for CWB to persistently charge wheat price premiums unlikely.²⁸ Further, Carter²⁹ focused on barley exports and noted how evidence suggested that the import demand facing

²⁰ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), chapters IV and VI. See also Colin A. Carter and R.M.A. Loyns, “The Canadian Wheat Board: Its Role in North American State Trading,” Paper resending for the Project on The Role of Agricultural Products in North America,” Institute of International Studies, Stanford University, Oct. 1998.

²¹ Colin A. Carter, “The Economics of a Single North American Barley Market,” *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 243-255.

²² Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), pp. 19-20.

²³ Colin A. Carter, “The Economics of a Single North American Barley Market,” *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 248-250.

²⁴ Andrew Schmitz and Harley Furtan. *The Canadian Wheat Board: Marketing in the New Millennium* (Regina, Saskatchewan, Canada: Canadian Plains Research Center, 2000), pp. 69-71.

²⁵ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), chapters IV and VI.

²⁶ Colin A. Carter, “The Economics of a Single North American Barley Market,” *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 243-255.

²⁷ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), pp. 56-58.

²⁸ Colin A. Carter and R.M.A. Loyns, “The Canadian Wheat Board: Its Role in North American State Trading,” Paper resending for the Project on The Role of Agricultural Products in North America,” Institute of International Studies, Stanford University, Oct. 1998.

²⁹ Colin A. Carter, “The Economics of a Single North American Barley Market,” *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 252-253.

Canadian barley imports is likely highly price-elastic, leaving CWB's ability to persistently charge substantial barley price premiums also unlikely.

Carter³⁰ analyzes the gains and losses to the Canadian barley industry of a short-lived (about 40-day) August 1993 reform that removed the CWB's monopoly over Canadian barley export sales into the U.S. market, having thereby effectively provided an open "continental" North American barley market (CBM) for the Canadian malting and feed barley. He utilized Knetter's³¹ regression-based tests for price discrimination, econometric estimation of import demand facing the CWB for barley, and various simulation experiments with an established Canadian agricultural policy model (including removal of certain CWB barley pricing powers).³² He concludes that there is little reason to suspect that the CWB has the power to alter prices across markets and extract premiums, since evidence failed to suggest that CWB barley export prices were not statistically different across major markets, and since econometric evidence suggests that the import demand for barley confronting the CWB is highly price-elastic. So the theoretical argument that the CWB can raise revenues through limiting sales in price-inelastic barley export markets does not seem to hold in the highly-elastic CWB barley export market that Carter depicted. Carter further contends that costs incurred by the Canadian barley market agents that would lose under relaxation of CWB monopoly over barley export sales would be more than offset by benefits from increased marketing opportunities in the western U.S. markets, and reduced economic costs through enhanced barley handling and transport efficiency of a more competitive scenario.³³

Clark³⁴ invoked Lucas'³⁵ critique that should a government policy, taken by Clark as CWB single-desk authority over Canadian barley export sales, affect a set of variables and their equilibrium, then the policy should become a part of that equilibrium. He noted, and empirically demonstrated through cointegration tests, that Canadian barley, wheat, and oat prices generally move together because of their patterns of substitution in use, and are bound by a single long-run equilibrium relationship.³⁶ Clark³⁷ conducted a battery of statistical and cointegration tests on daily Canadian grain prices to indirectly test whether or not the short-lived (40-day) relaxation of CWB single desk authority over Canadian barley sales had an effect on barley and other grain prices during the August 1-September 10, 1993. Numerous tests on structural change and hypothesis tests on the three daily grain price series were conducted on the full sample. And while there were some conflicting results, Clark's test evidence generally suggested that the CWB single-desk authority over Canadian barley sales had little or no impact on the long-run equilibrium driving Canadian

³⁰ Ibid., pp. 243-255.

³¹ M.M. Knetter, "Price Discrimination by U.S. and German Exporters," *American Economic Review* (1989), vol. 79, pp. 198-210.

³² Colin A. Carter, "The Economics of a Single North American Barley Market," *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 250-254.

³³ Ibid., pp. 243 and 254.

³⁴ J. Stephan Clark, "Single Desk Selling by the Canadian Wheat Board: Does It Have an Impact?," *Canadian Journal of Agricultural Economics* (1995) vol. 43, no. 2, p. 228.

³⁵ R. Lucas, "Econometric Policy Evaluation: A Critique," in Brunner and Metzler, eds., *The Phillips Curve and Labour Markets: Vol. 1* (Amsterdam, The Netherlands: North-Holland Publishers, 1976).

³⁶ J. Stephan Clark, "Single Desk Selling by the Canadian Wheat Board: Does It Have an Impact?," *Canadian Journal of Agricultural Economics* (1995) vol. 43, no. 2, pp. 228-229.

³⁷ Ibid., pp. 225-236.

grain, and particularly barley, prices.³⁸ Clark's results tend to support the arguments of Carter³⁹ and Carter and Loyns⁴⁰, and seem to work against the arguments above of Furtan, Kraft, and Tyrchniewicz,⁴¹ Gray, Ulrich, and Schmitz⁴², and of Brooks and Schmitz,⁴³ among others, above.

CWB Hidden Costs and Preferential Borrowing Rates

Carter and Loyns contend that a higher Canadian price in one market over prices of similarly classed sales in other markets, or higher Canadian prices over prices of similarly classed non-Canadian sales within markets are not an adequate defense of CWB single-desk authority having enhanced West Canadian wheat farm revenues.⁴⁴ They contend that the CWB imposes an array of economic and/or hidden costs on West Canadian wheat farmers that must be considered when evaluating the efficacy of the CWB's alleged farm revenue enhancement.⁴⁵ Carter and Loyns⁴⁶ provided an exhaustive survey of accounting and economic (indirect) costs and benefits attributed to the CWB's single desk authority, and attempted to empirically estimate such alleged costs and benefits.⁴⁷ Table D-2 below provides some of these estimates. In one or more cases, the items were considered benefits by the CWB and costs by Carter and Loyns. Following the table are explanations and clarifications on the table D-2 items as provided by Carter and Loyns. The estimates are in dollars per metric ton. Some of the items were estimated as per-metric-ton average costs over time, usually over periods of time from the early 1980's through the early 1990's; the time period for the averages differ among estimates. Further, some estimates are not average costs, but appear to be spot estimates of costs for the time when they were formulated and published in the mid-1990's. The costs are meant to be illustrative of their existence and general magnitude. Since they are of different forms and defined over different time periods,

³⁸ Ibid, pp. 233-234.

³⁹ Colin A. Carter, "The Economics of a Single North American Barley Market," *Canadian Journal of Agricultural Economics* (1993) vol. 41, no. 3, pp. 243-255.

⁴⁰ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996).

⁴¹ W.H. Furtan, D.F. Kraft, and E.W. Tyrchniewicz, "Can the Canadian Wheat Board Extract Monopoly Rents? The Case of the Spring Wheat Market," *International Journal of Economics and Business* (1999), vol. 6, no. 3, pp. 417-437.

⁴² R. Gray, A. Ulrich, and A. Schmitz, "A Continental Barley Market: Where are the Gains," *Canadian Journal of Agricultural Economics* (1993), vol. 41, no. 3, pp. 257-270.

⁴³ Harvey Brooks and Troy G. Schmitz, "Price Discrimination in the International Grain Trade: The Case of Canadian Wheat Board Feed Barley Exports," *Agribusiness* (1999) vol. 15, no. 3, pp. 313-322.

⁴⁴ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), pp. 63-68.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Ibid.

Table D-2
Carter and Loyns' Estimates: Costs and some alleged benefits attributed to the Canadian Wheat Board

Cost category	Cost Type	Estimate: Canadian \$/mt
CWB Administration	Direct cost	Can\$ 1.80
Protein give-away	Direct cost	Can\$ 1.60
Grade give-away	Foregone (lost) revenue	Can\$ 1.25
CWB-induced delays in wheat variety development	Forgone (lost) revenue	Can\$ 3.00-Can\$5.00
Overage credits	Direct cost	Can\$ 1.00
Excessive handling charges	Direct cost	Can\$ 3.00-Can\$5.00
Demurrage/dispatch/extra freight	Direct cost	Can\$ 1.05
Excessive cleaning costs	Direct cost	Can\$ 2.35
Port congestion	Forgone (lost) revenue	Can\$ 1.00
Farm production inefficiency	Forgone (lost) revenue	Can\$ 4.00
Delivery patterns	Cross subsidy	Can\$ 2.60 (costs to some and benefits to others)
Interest opportunity cost	Forgone (lost) revenue	Can\$ 0.60-Can\$ 1.60
Storage opportunity cost	Forgone (lost) revenue	Can\$ 2.00-Can\$ 4.00
Taxpayer costs of food aid	Budget cost	Can\$ 0.50
Government underwriting	Forgone cost	Can\$ 2.50
Pool deficits	Budget cost	Can\$ 2.50

Source: Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), p. 65.

they cannot and should not be added up.⁴⁸ There are six cost groupings handled below: CWB administration costs; costs of protein and grade give aways; costs of allegedly CWB-induced market inefficiencies; costs of allegedly CWB-induced costs of delayed varietal development; costs of allegedly CWB-induced farm production inefficiencies; and taxpayer costs.

Protein and Grade Give-Aways

Carter and Loyns assert⁴⁹ that the CWB's insistence on producing higher quality wheat classes is causing missed commercial export opportunities and incites a proclivity to give away extra protein and higher quality wheat that the client often does not pay for. Carter and Loyns⁵⁰ estimate that through the mid-1990's, 65 percent of CWB exports were for higher wheat qualities (CWRS1, CWRS2) and 18 percent were of medium/lower qualities, despite the fact that 75-80 percent of world wheat exports were for medium and lower classes or grades of wheat. The implication is that the CWB is not producing and marketing what the world is demanding. Carter and Loyns report that the CWB over-delivers to the Japanese

⁴⁸ Commission staff telephone conversation with Dr. R.M.A. Loyns, June 29, 2001.

⁴⁹ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), pp. 14-15 and 68-69.

⁵⁰ *Ibid.*, pp. 14-15. See also Colin A. Carter and R.M.A. Loyns, "The Canadian Wheat Board: Its Role in North American State Trading," Paper resending for the Project on The Role of Agricultural Products in North America," Institute of International Studies, Stanford University, October 1998.

market, on average, 0.6 of a percentage point of protein at an implied cost of Can\$ 5 per metric ton for the Canadian farmer (based on Japanese Wheat Flour Institute data).⁵¹ For all CWB wheat exports generally, Carter and Loyns estimated that for 1984 to 1994, the CWB over-delivered 0.25 of a percentage point of protein at an implied cost of Can\$ 1.60 per metric ton cost for the Canadian farmer.

For similar reasons, Carter and Loyns contend that the CWB over-delivers wheat quality by providing higher quality wheat than the client often pays for. They estimate that only 15 percent-20 percent of CWB clients want high-quality CWRS1 wheat, while 50 percent of CWB exports are graded as CWRS1, so that the CWB's insistence on higher quality than needed has rendered a "mismatch" between Canadian wheat production and world demand.⁵² Carter and Loyns note China as an example: China wants medium quality CWRS3 wheat, and it is alleged that the CWB persistently over-ships higher quality CWRS1 and CWRS2 consignments under contract specifications of "minimum grade or better." The problem is that China allegedly pays CWRS3 prices for the higher quality CWRS1 and CWRS2 shipments, and this has been estimated to cost the Canadian farmers an average of Can\$ 1.25 per metric ton over the 1984/85 to 1994/95 period.

Costs of Allegedly CWB-induced Market Inefficiency

Carter and Loyns⁵³ claim that Canadian farmers incur a series of direct or indirect costs and charges related to a set of CWB-induced market inefficiencies. Generally, these charges are expected to be lower in settings where there are more numerous competitive sellers. This is because these charges are often levied or claimed by CWB or grain companies against initial farmer payments or CWB pool accounts as pass-through charges that are taken for granted, and which the individual farmer has little or no voice in whether or not the charges should be paid.

"Demurrage" charges are added port fees for not loading ships on time and "dispatch" are credits for loading ships early, and these costs/credits are paid out of/received into the CWB pool accounts. Carter and Loyns claim that the Canadian scenario has a set of climatic conditions, geography, and pattern of labor relations that results generally in more demurrage being paid from, than dispatch paid into, CWB pool accounts.

Carter and Loyns contend that the high wheat quality standards imposed by the CWB causes all grain to be cleaned at the port, where cleaning is more expensive, rather than at inland locations.⁵⁴ Citing research that suggests that Canadian wheat is over-cleaned beyond standards that are necessary, Carter and Loyns then note that this results in increased cleaning costs and incurs charges associated with port congestion.⁵⁵ These items are in table D-2 and are as follows (per metric ton): overage credits and excessive handling, Can\$ 4.00-

⁵¹ Ibid., pp. 14-15.

⁵² Ibid., 1996), p. 69.

⁵³ Ibid., pp. 68-70.

⁵⁴ Ibid., pp. 83-84.

⁵⁵ Ibid.

Can\$ 6.00; demurrage/dispatch/extra freight, Can\$ 1.05; excessive cleaning costs, Can\$ 2.35; and port congestion, Can\$ 1.00.⁵⁶

Alleged CWB-Induced Costs of Delayed Varietal Development

Carter and Loyns⁵⁷ noted past Canadian Grains Council statements that CWB insistence or focus on high quality wheat production, while world market growth has been in medium quality wheat, has probably cost Canadian farmers money. Costs to Canadian farmers include forgone opportunity to market profitable new varieties, and forgone commercial possibilities since much of the world's fastest wheat market growth has involved varieties that do not resemble the main Canadian varieties. Carter and Loyns also note that because the CWB does not regulate varieties, it cannot be held totally responsible for such forgone income. However, CWB influence has been substantial, if indirect. The cost estimate by Carter and Loyns for these forgone revenues from retarded/delayed varietal development range from Can\$ 3.00 to Can\$ 5.00 per metric ton (table D-2).

Alleged CWB-Induced Costs of Farm Inefficiencies

In order to efficiently make planting decisions and to allocate farm resources, West Canadian farmers need reliable price forecasts, without which Canadian farmers lack relative price ratios required by basic theory for efficient resource allocation.⁵⁸ About the only price forecast that a West Canadian farmer has is a predicted initial payment usually made in July before the start of each Canadian wheat market year.⁵⁹ Carter and Loyns⁶⁰ claim that such initial payments are not adequate or reliable price forecasts for a number of reasons: they have been incomplete measures of final farmer returns; they have been highly variable from year to year; and they have been allegedly subject to political pressures, given the proclivity for initial payments to be very low after pooled deficits, climatic and market conditions notwithstanding. Carter and Loyns⁶¹ suggest that the initial payments may even have been sometimes "perverse" with conservative initial payments having been announced during rising markets. As seen in table D-2, Carter and Loyns⁶² estimate that costs from

⁵⁶ Ibid., p. 65.

⁵⁷ Ibid., p. 72.

⁵⁸ Ibid., p. 81.

⁵⁹ Andrew Schmitz and Hartley Furtan. *The Canadian Wheat Board: Marketing in the New Millennium* (Regina, Saskatchewan, Canada: Canadian Plains Research Center, 2000), pp. 66-67.

⁶⁰ Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), pp. 81-83; and Colin A. Carter and R.M.A. Loyns, "The Canadian Wheat Board: Its Role in North American State Trading," Paper resending for the Project on The Role of Agricultural Products in North America," Institute of International Studies, Stanford University, October 1998, p. 12.

⁶¹ Ibid.

⁶² Colin A. Carter and R.M.A. Loyns. *The Economics of Single Desk Selling of Western Canadian Grain* (Edmonton, Alberta, Canada: Agriculture Alberta, 1996), pp. 65,83.

CWB-induced production inefficiencies from lack of reliable price signals has cost Canadian farmers an average Can\$ 4.00 per ton annually.

Taxpayer Costs: Foreign Aid Sales and Government Interest Guarantees

The CWB claims that the Canadian Government's backing of the CWB's initial payments leads to substantially lessened interest rates being charged on the Board's line of credit, and this amounts to an annual benefit to West Canadian farmers of Can\$ 60 million.⁶³ Carter and Loyns research confirms that the CWB does get an interest break, but they look at the alleged benefit differently: they consider it a cost, not a benefit. Insofar as much of the Can\$ 60 million interest break is used to finance some Can\$ 7 billion in long term receivables, many of which are sales credit arrangements which the CWB is allegedly having difficulty in collecting, the interest "benefit" alleged by the CWB is actually a cost to the Canadian taxpayer. Carter and Loyns estimate that this cost amounts to Can\$ 2.50 per metric ton for Canadian farmers (table D-2).

Further, Carter and Loyns⁶⁴ estimate that CWB costs from food aid sales and taxpayer costs from pool deficits generally cost Canadian farmers Can\$ 0.5 and Can\$ 2.50 per metric ton, respectively.

⁶³ Ibid., pp. 65, 84-85.

⁶⁴ Ibid.