United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Domestic and Foreign Marketing and Product Promotion, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate

June 1992

INTERNATIONAL TRADE

Canada and Australia Rely Heavily on Wheat Boards to Market Grain

GAO/NSIAD-92-129

GAO

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-114824

June 10, 1992

The Honorable David L. Boren
Chairman, Subcommittee on Domestic
and Foreign Marketing and Product Promotion
Committee on Agriculture, Nutrition,
and Forestry
United States Senate

Dear Mr. Chairman:

As requested, we have reviewed the Canadian and Australian grain export marketing systems. Our review focused on their respective wheat board operations, the type and amount of government assistance received during the last 5 years, their export credit systems, and their reactions to the U.S.' 1985 Export Enhancement Program.

We plan no further distribution of this report until 30 days from its issue date unless you publicly announce its contents earlier. At that time, we will send copies to the Secretary of Agriculture, officials of the Canadian and Australian governments, and other interested parties. Copies will also be made available to others on request.

Please contact me on (202) 275-4812 if you or your staff have any questions concerning this report. The major contributors to this report are listed in appendix V.

Sincerely yours,

Allan I. Mendelowitz

Allan I. Mendelowitz, Director
International Trade and Finance Issues

Executive Summary

Purpose

The U.S. government has made agricultural trade reform its top priority for the Uruguay Round of the General Agreement on Tariffs and Trade negotiations. It has focused its attention on eliminating or significantly reducing subsidies for agricultural exports, particularly those of the European Community. In 1985 the Secretary of Agriculture established the Export Enhancement Program to challenge unfair trade practices and to increase U.S. agricultural exports. The program was targeted to have the greatest impact on the markets of the European Community by offering government-owned agricultural commodities as bonuses to exporters, thereby lowering commodity export prices and making them competitive with subsidized foreign agricultural exports.

Canada and Australia, who consider themselves to be nonsubsidizers, have criticized the U.S.' and the European Community's subsidy programs for lowering world agricultural prices and for reducing their export markets. However, some U.S. trade officials have countered that these countries' grain-marketing systems, which include government-backed wheat boards, also engage in unfair trade practices by selectively or secretly lowering their export prices.

The Chairman of the Senate Agriculture, Nutrition, and Forestry Committee's Subcommittee on Domestic and Foreign Marketing and Product Promotion asked GAO to obtain information on (1) Canada's and Australia's grain export marketing systems, including their respective wheat board operations; (2) Canada's and Australia's government assistance to wheat producers during the last 5 years; (3) their export credit systems; and (4) any new export practices established in reaction to the U.S.' 1985 Export Enhancement Program and their impact.

Background

In the 1970s industrialized countries expanded their wheat production in response to an increasing demand for food in developing countries and Eastern Europe. Five producers—the United States, Canada, Australia, Argentina, and the European Community—supplied 95 percent of the world market. By the early 1980s some developing countries had become more self-sufficient. This change, coupled with other factors (e.g., global recession, the Third World debt crisis, and fluctuating grain imports from the former Soviet Union and China), created a market in which supply increased at a greater rate than demand, causing an imbalance between world wheat production and consumption.

These changes in the global wheat market resulted in a proliferation of protectionist trade policies, domestic support programs, and aggressive export subsidy programs.

Results in Brief

Both Canada and Australia operate wheat boards as part of their grain-marketing systems. These boards generally function as a single buyer of wheat in their designated region and one of few sellers to the global wheat market. Marketing boards, in general, can offer different prices to different customers in order to maximize total returns to producers. This differential pricing allows boards to capture new and growing markets by offering to sell grain at lower-than-posted prices while charging full market prices to established customers. Neither the Canadian nor the Australian Wheat Boards reveal their selling prices.

All wheat delivered to marketing boards is pooled. If the boards incur a deficit on their wheat sales, both governments reimburse the wheat boards for the deficit on the pooled wheat. The Canadian government guarantees a minimum price to its wheat farmers. In Canada, the board has incurred only two wheat pool deficits between 1943 and 1990. In Australia, until 1989 the government guaranteed a minimum price to farmers. In the 1986-87 growing season, deficits prompted a government payment to farmers.

While neither Canada nor Australia directly subsidizes its wheat exports, each has agricultural programs that indirectly support wheat exports. The Canadian government gives more assistance to its wheat industry than the Australian government does. The Canadian government extends support to farmers mainly in the form of freight subsidies, crop insurance, and guaranteed minimum prices. The Australian government employs rural family farm adjustment schemes and farm input subsidies. In addition, the Canadian and Australian governments have export credit guarantee programs. Australian farmers receive less assistance than farmers in Canada, the United States, and the European Community.

Although neither Canada nor Australia has instituted specific export policies in reaction to the U.S.' Export Enhancement Program, they have readjusted their trading patterns. This change included selling to riskier markets and emphasizing their grain quality more heavily.

GAO's Analysis

Canadian and Australian Wheat Boards Are Noncompetitive Sellers

Wheat boards play an important role in the Canadian and Australian grain-marketing systems. They pool all wheat bound for export and give farmers a partial payment before the wheat is sold. Then, after the boards deduct marketing, processing, and freight costs from the sales, contributing producers receive a final payment.

One advantage of pooling is the distribution of marketing risks. If a board sustains net losses during a growing year, the government reimburses the board for its loss. The Canadian Wheat Board has sustained two wheat pool deficits between 1943 and 1990. One deficit, totaling 26 million Canadian dollars (approximately 19 million U.S. dollars), occurred in 1985 when world prices were depressed, in part because the United States introduced the Export Enhancement Program. In Australia, the government paid 201 million Australian dollars (approximately 140 million U.S. dollars) to make up for the wheat board's shortfall in the 1986-87 growing season when wheat export prices fell sharply.

To finance their operations, the Canadian and Australian Wheat Boards borrow funds from domestic and overseas capital markets. They also can issue bonds and commercial paper. Since both governments guarantee board loans if sales revenues fall short of obligations, the boards are able to obtain more favorable interest rates on loans, essentially lowering the costs associated with export sales.

The Canadian Government Provides More Assistance Than Australian Government

According to the Organization for Economic Cooperation and Development, farmers in Australia received 11 percent of their income in 1990 from government assistance. In contrast, wheat producers in Canada received 43 percent of their income from government subsidies while U.S. and European Community wheat farmers received 44 and 46 percent of their income, respectively, from government wheat support programs. From 1980 to 1990, the Canadian government assisted its agricultural producers by providing income support through the Agricultural Stabilization Act, crop insurance, the Special Grains Program that compensates producers for low world prices, and the Western Grains Stabilization Fund. However, its largest grain support to grain producers comes from a freight rate subsidy known as the "Crow's Nest Pass Agreement." The government subsidy was fixed by a 1983 Canadian

Parliament act at an inflation-adjusted 658-million Canadian dollars per year on a continuing basis.

In Australia, the government has gradually been reducing its assistance to the wheat sector as well as to other industries. During the 1980s the government removed subsidies for export inspection services and fertilizer. In addition, it no longer pays a guaranteed minimum price to growers, does not directly subsidize the board's interest payments, and does not set the domestic price for wheat at artificially high levels. Some government assistance does remain, however.

Export Credit Guarantees Are Available

The ability to offer export credit has become significant for wheat exporters. For more than 30 years, the Canadian government has guaranteed export credit for wheat, mainly over the short term. The Canadian government is ultimately responsible for all the board's debts.

Australia also provides export credit for wheat sales and extends credit insurance. About 10-12 percent of sales are on credit terms, usually for 2 to 3 years. All credit sales are insured through the Export Finance and Insurance Corporation. The corporation is backed by a government guarantee if its funds are exhausted. However, this guarantee has never been used in the corporation's 35-year history.

Export Enhancement Program Has Affected Both Countries

Canada and Australia have not changed their specific export policies in reaction to the U.S.' Export Enhancement Program. However, they have redirected their marketing efforts to countries not covered under the Export Enhancement Program, taken on riskier markets, and pursued a marketing strategy focused on grain quality.

Recommendations

GAO is not making recommendations in this report.

Agency Comments

Because the report is informational in nature, GAO did not obtain official agency comments. However, GAO did discuss the draft report with program officials in the Department of Agriculture's Foreign Agricultural Service. Canadian and Australian officials, including officials of the Wheat Boards, also reviewed copies of the draft report. Their comments have been incorporated in the report where appropriate.

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Abbreviations

CAP	Common Agricultural Policy
EC	European Community
GAO	General Accounting Office
mmt	million metric tons
PSE	producer subsidy equivalent
OECD	Organization for Economic Cooperation and Development

Introduction

The global grain markets of the 1990s are different in marked and perhaps permanent ways from markets in the 1970s and 1980s. Governments around the world have adopted new sets of agricultural trade policies; these policies have altered agricultural production and trading patterns. In the 1970s a significant rise in developing countries' food needs stimulated an increase in the grain production of industrialized countries. By the 1980s new producers, exporters, and importers emerged. Because of this expanded competition, the world agricultural trading system became less stable. As a result, among major exporters, with the exception of Australia, there has been a growth in government policies and programs to support and protect domestic farmers and to preserve and expand export markets. Export credit also emerged as a factor in the 1990s grain trade.

International agricultural trading tensions grew as exporters struggled to hold on to existing markets, capture new markets, or recapture lost sales. In the United States, the Reagan administration established the Export Enhancement Program in the Department of Agriculture to challenge unfair trade practices and encourage negotiations on the liberalization of agricultural trade.[1] Under the program, government-owned surplus agricultural commodities and more recently cash payments are used as bonuses to U.S. exporters to enable them to lower the prices of U.S. agricultural commodities and make them competitive with subsidized foreign agricultural exports. Canada and Australia have heavily criticized the Export Enhancement Program for depressing world grain export prices. Yet, both countries themselves provide government assistance to their wheat producers and maintain controversial centralized marketing systems.

Canada and Australia have grain-marketing systems that allow them to ensure, to the extent possible, the ability (1) to sell crops without frequent taxpayer-funded direct export subsidies; (2) to manage the orderly withdrawal of crops from the farm for delivery to export locations and for domestic consumption; (3) to break the link between the price producers receive for their crops and the time when crops are brought to the market; (4) to offer differentiated prices in key and segmented markets; and (5) to maximize returns to all producers, collectively, even if some producers may be subsidizing others.

[1]Unfair trade practices include any act, policy, or practice of a foreign government that violates an international agreement or is unjustifiable, unreasonable, or discriminatory and burdens or restricts U.S. commerce.

Sharp Rise in Food Demand in the 1970s Stimulated World Grain Production

In the 1970s, developing countries' demand for food increased sharply. This demand was fueled in part by the countries' higher export earnings; massive lending programs from international banks; and a declining U.S. dollar, which lowered the cost of importing food. A desire by the former Soviet Union and Eastern Europe to improve consumer diets further expanded the boom in food imports, particularly wheat. Industrialized countries accommodated this expanded food demand by increasing their production for export. By the end of the decade the following three developments had affected global wheat trade:[2]

- an unprecedented expansion of U.S. wheat exports;
- a significant growth in the European Community's (EC) wheat exports, establishing the EC as a major grain exporter;[3] and
- a domination of the wheat export trade by five exporters—the United States, Canada, Australia, Argentina, and the EC, which together controlled 95 percent of the world wheat market.

Wheat and wheat flour exports from the five major wheat-exporting countries nearly doubled between 1970 and 1980. By far the largest increase in wheat exports was from the EC, whose exports grew 400 percent, from 3.1-million metric tons (mmt) in 1970 to 12.7-mmt in 1980. As for the United States, Canada, and Australia, those countries experienced wheat export growths of 108 percent, 38 percent, and 17 percent, respectively.

Surplus Production and Falling Demand in the 1980s Intensified Government Intervention

In the early 1980s, global recession, the Third World debt crisis, fluctuating grain imports by centrally planned economies (e.g., the Soviet Union and China), and reforms to increase food self-sufficiency in some developing countries slowed the growth of the world's grain market. Traditional U.S. wheat importers—Eastern Europe, Japan, and Latin America—reduced or stabilized their imports. India and the United Kingdom became net wheat exporters. At the same time, the former Soviet Union, North Africa, the Middle East, and parts of Asia became major import markets, leading to a realignment of the wheat trade. These events

[2]Wheat is the most widely traded commodity and occupies a unique role in the world agricultural economy. Wheat represents approximately 90 percent of world trade in food grains.

[3]The European Community consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

have altered the configuration of importers to such an extent that a change in the total demand for imports of just a few markets could significantly affect the export volume and market share of the major wheat exporters. Grain production in the major exporting countries, however, remained relatively unchanged during this period. Surplus production in exporting countries, coupled with a decreased demand for imported food, threatened the welfare of exporting nations' domestic grain producers. Many wheat-exporting countries attempted to guard the interests of their producers by implementing protectionist policies and export assistance programs to help preserve and expand market shares.

The EC expanded its net export volume with the help of an aggressive grain trade policy consisting of import levies and export subsidies. Under the EC's Common Agricultural Policy (CAP),[4] large import levies kept cheaper foreign grain from entering EC markets, while export subsidies enabled high-priced EC grain to compete in the world market. As a result of these practices, which created artificially high price incentives for farmers, EC grain production increased far more rapidly than production elsewhere in the world. These policies enabled the EC to transform itself from being one of the world's largest importers of grain to one of the world's largest grain exporters. In the 1977-78 crop year, the EC imported almost 20-million tons of grain; by the 1988-89 crop year, it was a net exporter of more than 25-million tons. Consequently, exporters between the 1977-78 and 1988-89 crop years faced a world market that was 45-million tons smaller than it would have been if the EC's net trade position had not changed.

Experts in agricultural trade suggest that the competition for export markets using export subsidies and other forms of government assistance has resulted in greater inefficiency in the world agricultural trading system and disarray in the world grain market. They point to growing stock build-ups, decreasing prices,[5] and growing budget costs for domestic farm programs as evidence of the decline in the efficiency of the trading system.

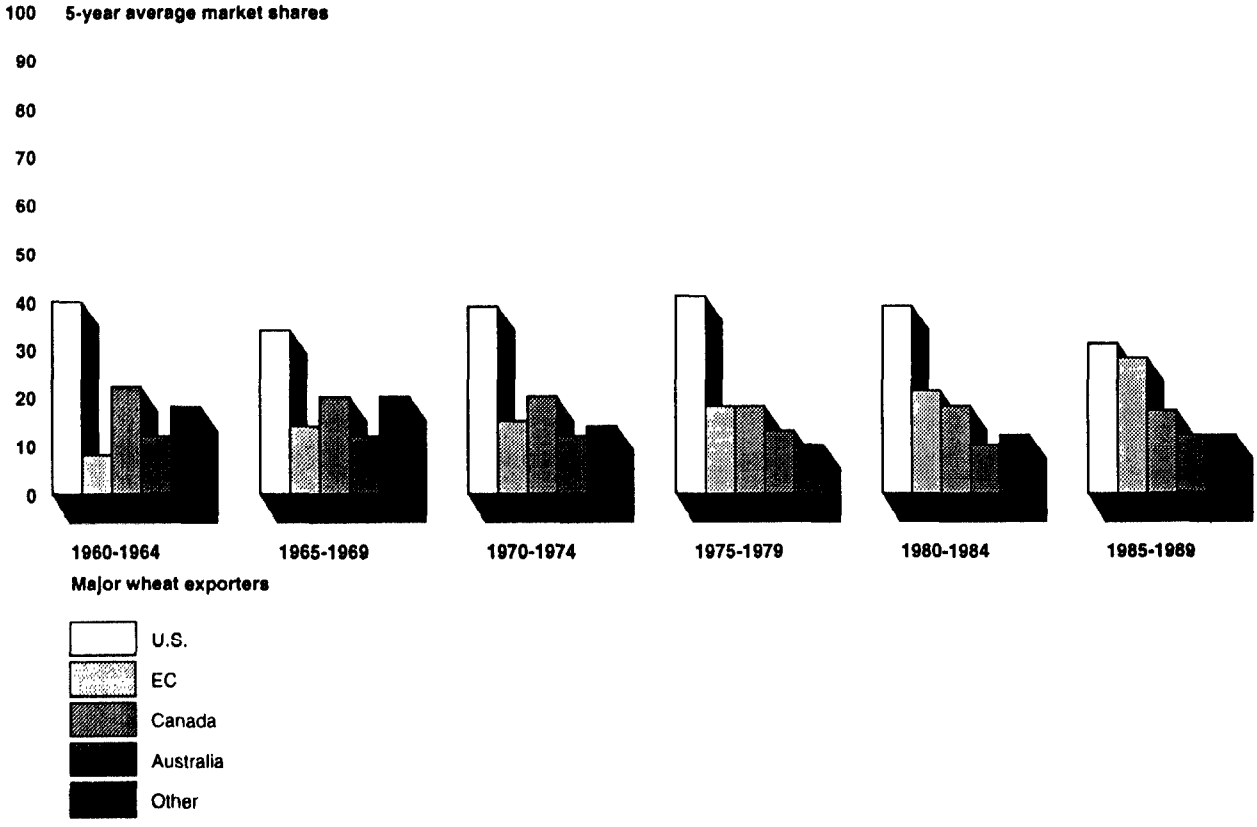
[4]The Common Agricultural Policy is a set of regulations by which member states seek to merge their individual agricultural programs into a unified effort to promote regional agricultural development. The principal elements of the policy are high internal grain prices, no production controls, community preference in trade, and a variable import levy and export subsidy scheme designed to shield internal prices from fluctuations in world price levels.

[5]Export prices for wheat in 1990 were the lowest since 1972.

Exporters Reacted to Shrinking Markets

Until the emergence of the EC as a major exporter in the 1980s, the United States, Canada, and Australia dominated the production and export of bulk grain in an orderly and often cooperative market. Figure 1.1 presents the 5-year average market shares of the major wheat exporters from 1960 to 1989. It shows that although increased EC exports eroded United States, Canadian, and Australian wheat exports, the EC has been particularly effective in displacing the U.S.' market share since 1975.

Figure 1.1: Market Shares of Major Wheat Exporters, 1960-1989



Source: U.S. Department of Agriculture's Economic Research Service, Production, Supply, and Distribution data base, 1990.

Moreover, market share displacements were even more pronounced regionally (see app. I). The shifts in the regional market share reveal not only the intensity of the competition for markets but also the problem of

trade diversion as the so-called traditional market of any one of the major exporters becomes the target of the others. Before 1980 the EC had a growing and dominant market share of wheat exports only in Western Europe. Since 1965 the EC has consistently displaced all exporters in the West European wheat market. Between 1980 and 1990 the EC's market share increased in all regions except North Africa and Central America. The United States and Australia, to a lesser extent, have managed to take over EC market shares in North Africa. Although the United States dominates the Asian, the sub-Saharan African, and the Central and South American markets, it continues to face stiff competition by other exporters challenging its dominance. Since 1985 the United States has lost market shares in Asia, South America, Western Europe (due to increased domestic production), sub-Saharan Africa, and the Middle East.

The United States, Canadian, and Australian Grain-Marketing Systems Differ

Although government intervention in price income support for agriculture is a long-standing practice, U.S. farmers rely on a free enterprise system to carry out various marketing functions (e.g., the sale of their harvest, on-farm storage, transportation, and financing). In a typical U.S. grain sale the farmer sells wheat to a local grain elevator, which, in turn, sells to a domestic miller or an international trading company. The farmer receives the market price on the day of the sale.

Canada and Australia rely on quasi-government agencies, known as "marketing boards," to exercise control over the sale and export of grains. All wheat bound for export is pooled and sold by grain marketing boards. The revenues are kept in accounts known as "pool accounts." Farmers receive a nonrefundable partial payment for their produce before the actual date of sale. Additionally, an intermediate and/or final payment may be made by the marketing boards after the pool account is closed and operating costs are deducted from total revenues. The governments guarantee the marketing boards' reimbursement for deficits in pool accounts. Both the farmers and the marketing boards, therefore, face lessened market risk due to the government-guaranteed initial payments, much like participants in U.S. government-sponsored wheat support programs.

A grain-marketing board is generally a single buyer operating a controlled production system in which strict quality and variety standards are enforced. The marketing boards operate as monopsonists (sole buyers) in the domestic market and oligopolists (one of few sellers) in external markets. The marketing boards can segment their markets and offer

different prices to different customers in order to maximize profits. Differentiated pricing makes it possible to provide lower-than-posted prices to new and growing markets while charging full market prices to others. Moreover, because marketing boards sell to both the domestic and export markets, this dichotomy allows losses in one sector to be offset by revenues in the other.

Marketing boards also have advantages in the production, sale, and disposition of agricultural commodities due to their control of market supply information, their financial strength to outbid foreign competitors, and their access to government and government-backed funds. The board system characteristically concentrates decision-making authority to enable market negotiations to occur in an atmosphere of confidentiality, decisiveness, and minimal government interference. Because of the similarities in their structure, marketing boards have a propensity to enter into collaborative deals with centralized buying authorities of importing nations. Marketing boards also make long-term sales agreements with importing governments easier to achieve.

United States, Canadian, and Australian Governments Assist Wheat Producers

Before the emergence of the EC as a major exporter of wheat in the 1970s, government involvement in the grains industry in the United States, Canada, and Australia focused on improving farm income and ameliorating rural poverty. The United States provided income support through deficiency payments,[6] incentive programs for acreage set-asides to restrain supplies, and public stock management in support of market prices. The Canadian government, on the other hand, extended support to farmers in the form of freight and insurance subsidies, the Western Grains Stabilization Program, and guaranteed minimum prices set by grain-marketing boards. The Australian government employed a set of programs to assist family farms judged financially viable in its rural adjustment scheme, maintained higher relative domestic prices to offset relatively lower export prices charged in order to promote exports, and guaranteed minimum prices. Appendix II provides the direct and indirect government expenditures associated with the production of wheat in Canada, Australia, the United States, and the European Community.

[6]Deficiency payments are direct payments to farmers who participate in Agriculture's Acreage Reduction Program for basic commodities. Payments equal the difference between Agriculture's Commodity Credit Corporation's target price and the actual market price for each of those commodities or the loan rate—the rate at which the government will provide a nonrecourse loan to farmers to enable them to hold their crops for a delayed sale—whichever difference is lower.

One way of measuring the flow of direct and indirect government assistance to producers is the "producer subsidy equivalent" (PSE). The Organization for Economic Cooperation and Development (OECD), composed of a number of industrialized free market nations, uses PSEs to compare levels of assistance among countries. PSE is an internationally recognized measure of government assistance and represents the ratio of producers' income to the direct and indirect government transfers (subsidies). It is the rate at which producers would need to be compensated if all assistance were removed without having producers realize a loss in income. A relatively high PSE means that the government provides a larger amount of production incentives (assistance) than do governments in countries with a lower PSE. Appendix III presents the producer subsidy equivalents of wheat in Canada, Australia, the United States, and the European Community from 1980 to 1990.

Table 1.1 presents PSEs for wheat as a percent of production from 1979 to 1990. For the four governments listed below, OECD estimated that in 1990 the EC provided the most support to its wheat producers and Australia provided the least.

Table 1.1: Producer Subsidy Equivalent Rates for Wheat, 1979-1990 (as percent of production)[a]

	1979-85[b]	1986	1987	1988	1989[b]	1990[b]
Australia	8	21	14	10	11	17
Canada	21	54	54	39	26	43
European Community	26	58	60	50	27	46
United States	23	60	64	39	25	44

[a]Total income is the sum of the value of production and direct government payments and is referred to in OECD publications as "adjusted value of production."

[b]Average PSE weighted by the value of production.

[c]Figures for 1989 and 1990 are estimates.

Source: Agricultural Policies, Markets and Trade: Monitoring and Outlook 1991, OECD (Paris: 1991).

Export Credit Has Assumed Increasing Importance

Intense competition for sales in an oversupplied world wheat market has encouraged exporters to compete not only by lowering their prices but also by offering improved credit terms. Exporters who were unable to extend credit have been compelled to lower their prices even more to offset attractive price and credit quotes from competitors.

The intensity of the competition has prompted some private companies to set up credit lines to supplement official export credit programs.

side-by-side with bilateral credit arrangements. Selling terms are increasingly adapted to meet specific requirements in individual markets. The volume of cash transactions continues to diminish as food aid and special credit arrangements accompany "commercial" transactions.

No Specific Programs Exist to Counter the U.S. Export Enhancement Program

As the United States, Canada, and Australia lost market shares to the European Community in the 1980s, the three countries responded by increasing support for their farm programs. In the United States, this response came in the form of the 1985 Export Enhancement Program. In Canada and Australia the increased government support was complemented by a search for a niche in the more lucrative, higher-quality wheat export markets and increased export credits to riskier markets.

The Export Enhancement Program was established by the Secretary of Agriculture in reaction to continuing declines in U.S. agricultural exports. Major objectives were to challenge unfair trade practices of competitor nations, especially the European Community, and encourage serious negotiations on the liberalization of agricultural trade. The expansion of U.S. agricultural exports was a secondary goal, to be achieved through a successful conclusion of the Uruguay Round of multilateral trade negotiations.

Under the Export Enhancement Program, government-owned surplus agricultural commodities and, more recently, cash payments are provided as bonuses to U.S. exporters to help lower the prices of U.S. agricultural commodities and make them competitive with subsidized foreign agricultural exports. The program was primarily designed to target markets in which the European Community was subsidizing its exports. As of October 1991, over $3.9-billion worth of surplus commodities have been made available as bonuses to eligible U.S. exporters for sales to 75 countries. These sales totaled over $13.2 billion. The primary commodity sold under the program has been wheat.

The U.S.' decision to use the Export Enhancement Program has strained agricultural trade relations among the United States, Canada, and Australia. Canada and Australia have argued that the Export Enhancement Program has been an ineffective countermeasure to the EC's subsidization program. In addition, they contend that the Export Enhancement Program lowers prices in targeted markets and that these lowered prices subsequently affect other non-Export Enhancement Program markets. This effect contributes to an overall decline in world prices and in total export returns

that may be more harmful to export-dependent nations such as Canada and Australia. The U.S. position is that the Export Enhancement Program is a targeted export subsidy designed to offset unfair trade practices.

Both Canadian and Australian government officials told us they have not initiated any new export programs to counter the U.S. Export Enhancement Program. Canadian officials said that they do not focus on market share. They stated that market service and total revenue are instead more critical to their agricultural trade. Australian officials said that establishing such programs would run counter to the current administration's philosophy of reducing the government's involvement in industry and its position in the Uruguay Round of multilateral trade negotiations advocating less government intervention in agricultural trade.

In the absence of government programs to counter the Export Enhancement Program, both countries try to concentrate on the market for high-quality grains. Canada is exporting more wheat to the United States under the Free Trade Agreement, in part because Canada is relatively more competitive with U.S. suppliers in the U.S. market. Canada is not a targeted country under the Export Enhancement Program.

Australian Wheat Board officials told us that they try to maximize sales to countries in which there is no subsidized competition, particularly those countries that for political reasons are disinclined to trade with the United States, such as South Africa and North Korea. In addition, according to an official of Australia's Export Finance and Insurance Corporation, the board has been forced to sell wheat in more risky markets, such as Iraq and Egypt, as a result of the Export Enhancement Program. The Australian government provides credit insurance for these sales in return for payment of risk-based premiums. To manage the risk of credit default, the government has limited the volume of sales that can be financed on credit to these higher-risk countries.

Objectives, Scope, and Methodology

The use of export subsidies by the United States and the EC has sparked trade tensions between them and "nonsubsidizing" exporters—most notably Canada and Australia. In addition, some U.S. wheat traders claim that these countries' marketing board operations constitute a form of unfair competition.

In response to these concerns, the Chairman, Subcommittee on Domestic and Foreign Marketing and Product Promotion, Senate Committee on

Agriculture, Nutrition, and Forestry, asked us to obtain information on the Canadian and Australian grain export marketing systems, particularly their respective wheat board operations. We were also asked to (1) determine the level of government assistance to the wheat industry in these countries in the last 5 years; (2) describe these countries' export credit systems; and (3) determine whether any new trade practices or programs were initiated in response to the Export Enhancement Program and, if so, the impact of these practices on the U.S. wheat industry.

We reviewed background documents provided by agricultural officials in the Canadian and Australian embassies in Washington, D.C., and by officials of the U.S. Department of Agriculture's Foreign Agricultural Service and its Economic Research Service. We also traveled to Canada and Australia to interview government and industry officials involved in marketing grain.

To obtain information about Canada's and Australia's grain export marketing systems and, more specifically, their wheat board operations, we interviewed officials of the Canadian and Australian Wheat Boards. For information on the level of government assistance to the Canadian wheat industry, we interviewed officials with the Wheat Board, Agriculture Canada, the Ministry of Finance, the Canadian Grain Commission, the Canadian International Grains Institute, the Grain Transportation Agency, the Canadian International Development Agency, the Export Development Corporation, Statistics Canada, and provincial pool operators (bulk handlers). In Australia, we interviewed officials with Australia's Wheat Board, the Department of Primary Industries and Energy, the Australian Bureau of Agricultural and Resource Economics, and the Industries Commission. In addition, we reviewed documents and studies provided by these parties.

We obtained information on Canada's export credit system through interviews with officials of the Ministry of Finance, the Wheat Board, Agriculture Canada's Grain Marketing Bureau, and the Export Development Corporation. In Australia, we interviewed officials with the Department of Industry, Technology, and Commerce and the Export Finance and Insurance Corporation.

In both countries we discussed the Export Enhancement Program with government officials and industry representatives to determine whether either country had responded with any new trade practices or programs,

including whether or not they have instituted a standing offer to undercut U.S. wheat prices, as claimed by one U.S. trade association.

We conducted our work from March 1991 to March 1992 in accordance with generally accepted government auditing standards.

Because the report is informational in nature, we did not obtain agency comments. However, we did discuss the draft report with program officials in the Department of Agriculture's Foreign Agricultural Service. Canadian and Australian officials, including those of the Wheat Boards, also reviewed copies of our draft report, and their comments have been incorporated in the report where appropriate.

Canada's Grain Export Marketing System

The linchpin of Canada's grain export marketing system is the Canadian Wheat Board, a centralized marketing agency. The board is the sole marketer of wheat and barley grown in the prairie provinces for export and for domestic human consumption. The board is involved in all phases of wheat and barley production and sale, from determining the farmers' delivery quotas to managing the pooling process and to pricing the grain and selling it. The board sets delivery quotas needed to control the flow of grain from the farm through the storage and transportation facilities. By pooling similar varieties of grain, the board is able to distribute market risks and maximize producers' profits. Farmers deliver grain to country elevators and receive initial partial payments set by the government. These payments historically have covered approximately 80 percent of expected sales value. When the board prepares to close a pool account to make final payments to the farmers, it deducts operating costs from net returns.

The board exercises sole authority in its pricing—it can differentiate prices based on markets. The board can segment its market according to buyer characteristics, accommodate the risks and benefits of large inventories, and extract higher prices in some markets to compensate for losses in others, therefore maximizing the return to the pool participants. However, the board treats pricing information as proprietary. The United States and other exporting countries have criticized the board's pricing practices because they lack price transparency, therefore making it difficult to prove or refute claims of predatory pricing (i.e., undercutting competitor prices).

The Canadian Wheat Board interacts with other organizations in the grain-marketing system. These organizations include several government agencies, provincial grain handlers, and other grower and marketing groups.

The Canadian government provides assistance to its wheat producers through freight rate subsidies and assumes liability for any pool deficits that cannot be financed by the board. Other forms of government assistance include income support programs, research and advisory services, and transportation facility development.

The government also guarantees export credit for grain sales made through the board. This credit has helped the board diversify its customers and expand into new markets.

Background

Settlement of the Canadian prairies began in the latter half of the 19th century, and by 1887 Canada had country grain elevators, a railroad, a grain terminal on the Great Lakes, and the Winnipeg Grain Exchange. Farmers experienced shipping problems with the railroad monopoly almost from the start and later with grain elevator monopolies granted by the railroads.

The Manitoba Grain Act of 1900, the first in a long series of legislation to aid grain growers, gave farmers the right to ship their own grain and to load from their own wagons or warehouses, rather than having to sell to the grain elevators. It established the still-observed principle that all farmers have a right to rail cars for moving their grain to market. Producers had further problems in trying to ship bumper crops in the early 1900s, and in 1906 they formed the first cooperatives.

The Canada Grain Act of 1912 established what is now the Grain Commission and provided for government control over grain licensing, inspection, and grading. In the war years of 1917 and 1918, the Canadian government took over wheat marketing, and in 1919 the first Wheat Board was established. Although the wartime board sold only 1 year's crop, it incorporated the concepts of initial and final payments, pricing to maximize producer (pool) return, and centralized marketing.

Producers wanted the Wheat Board retained after the war but could not persuade the government to do so. Therefore, they began forming provincial cooperatives to pool their crops. In 1925 the National Railway Act was passed, reinstituting the earlier grain-hauling rates of 1897 and applying them to all prairie grains moving to export points.

The prairie provincial wheat pools were successfully formed in 1924. They provided for pooling, made initial payments, and prospered—until the stock market crash of 1929 when the pools temporarily went into receivership. Most wheat growers suffered great financial hardship during the Depression, prompting the government to pass the Canadian Wheat Board Act of 1935, which established the Canadian Wheat Board as a crown corporation.[1] The Wheat Board was also given control of marketing oats and barley, thereby taking on the essential features of the current board system.

[1]A crown corporation is a semiautonomous government organization used to administer and manage public services in which enterprise and public accountability are combined.

In the meantime, the prairie wheat pools had prospered, paid off their debts, and become politically and financially powerful. Several board commissioners were pool members, and the pools were influential in all aspects of grain policy.

Canada grows only one major class of spring wheat, in a confined area of approximately 85 million acres. The land is arid, and a third of it is kept fallow in the summer. The growing season is only about 115 days, and exposure to severe weather is a threat. Canada's relatively small population of 25 million makes current levels of grain production dependent on the export market—about 85 percent of farmers' wheat and about 50 percent of their barley is sold to other countries.

The Canadian Wheat Board Plays a Major Role in the Grain Export Marketing System

The Canadian Wheat Board operates as an independent, government-supported, centralized marketing agency. It is both the world's largest grain-marketing board and the largest single merchandiser of wheat and barley. It is also Canada's biggest corporate enterprise and its single largest net exporter.

The board is the only entity in Canada empowered to market for export and for domestic human consumption wheat and barley grown in the western prairie provinces of Manitoba, Saskatchewan, Alberta, and British Columbia. A 1935 Canadian Wheat Board Act gave the board the right to enter into commercial banking arrangements, borrow money, and issue bonds and commercial paper. Because the board is a crown corporation, the board's unliquidated financial obligations constitute a direct charge on the Canadian government, payable out of the Consolidated Revenue Fund of Canada.

Although the board's obligations represent potential liabilities of the Canadian government, the board has considerable authority and independence and exercises great influence over national agricultural policy. The board's day-to-day operations are free of government monitoring or supervision. Aside from submitting an annual report to the Minister of State for Grains and Oilseeds, the board has no other formal responsibilities to the government of Canada. The board also has unlimited pricing authority and relatively autonomous credit authority to accommodate the sale of board grains.[2]

[2]The board is required to seek prior approval from the cabinet in session if it wishes to extend credit in excess of preapproved limits to client nations.

The board is administered by five commissioners who are appointed to serve until age 70 by the government of Canada. A producers' advisory committee, composed of 11 farmer-elected representatives from the prairie provinces, serves as an important gauge of farmers' attitudes and disseminates information on the board and its operations. In 1990 the board employed about 465 persons but owned no asset other than its headquarters building and 2,000 rail cars.

Board Delivery Quotas Can Influence Grain Production

At the beginning of a crop year, the board receives delivery permit applications from farmers indicating intended production and seeded acreage of board grains. At various times during the year, and depending on the location and grade of the grain, the board issues delivery quotas that are proportional to the seeded acreage of board grain. Although the board tries to provide a fair distribution of delivery opportunities, nonetheless it makes these opportunities available to farmers based on logistical, cost, and grain demand considerations. The board's goal is to end the crop year with delivery quota allocations that are sufficient to allow all farmers to deliver their crop. In the event that carryover stocks are held by farmers, these farmers receive priority in subsequent delivery opportunities, but they are not compensated for their storage costs. The board draws grain from farms according to market demand. This system can cause grain to back up on farms in times of slow domestic or export markets. Consequently, on-farm grain stocks exhibit large year-end variations depending on board grain sales.

Delivery quotas are primarily used to control grain flow from the farm to the limited storage and transportation facilities of the grain-handling system. Canada has a 40-million ton, on-farm storage capacity to serve production levels of approximately 52 million tons. In crop year 1988-89, Canada's export storage and transportation infrastructure could only accommodate about 15-million tons at any one time—6.9 million tons in its primary elevator capacity and about another 8 million tons moving through its terminals, transfer houses, and processing facilities. Although board officials told us that the delivery quota system does not influence grain production, on-farm storage costs for undeliverable grain might compel farmers to plan production according to the expected board delivery quotas.

The Board Handles the Pooling Process

Farmers deliver their grain to country elevators, where it is graded and binned with similar grades awaiting entrance into the marketing system for exporting grain. At that time, initial partial payments are made to the farmer by elevator companies, who in turn are reimbursed by the board once the grain is delivered to a shipping port. The initial payments are set by the government of Canada in consultation with the board and cover approximately 80 percent of the anticipated price of the grain. The Canadian government guarantees the initial payments to the board.

All fees for transportation and handling are initially borne by the board as operating costs to be charged to pool accounts. The board maintains these accounts for each of the four commodities it currently markets—wheat, durum wheat, barley, and barley malt. Pool accounts are maintained as distinct entities, with no interpool accounting.

The board sells grains on a continuous basis throughout the crop year—August 1 to July 31. Grains are sold on a first-in, first-out basis until the crop year inventory is exhausted or until the board can determine the value of unsold grains for closure of pool accounts. Once the pool account is closed, final payments are made to the farmers to distribute the remaining profits.

Pooling removes timing of sales as a decision factor for farmers—they deliver their crops, in compliance with the wheat board's requests, at any time of the year and obtain equalized returns that are independent of the time of delivery. Dozens of different grades of wheat or barley are delivered by farmers in a crop year. The wheat and barley are sold in different quantities at different prices at different times of the year. Conceptually the farmer receives the average relative price of his grade of wheat or barley regardless of the particular price at which a farmer's crop may have sold at the time of delivery. Pooling also distributes market risks and advantages and assists in resource sharing. Although pooling distributes market risks by giving each farmer the average price of all sales of a grade of grain sold by the board, pooling by itself does not guarantee higher prices for farmers. However, the board can segment its market according to buyer characteristics, accommodate the risks and benefits of large inventories, and therefore maximize the return to the pool participants.

The Board Determines Pool Returns

Each farmer delivers various grades of grain to the pools. Therefore the board must establish a "base grade" from which the relative value of all other grades is determined. The board records the invoiced selling price of the base grade each day as well as the difference between the base grade price and other grades, known as the "discount" or "spread." When the board prepares to close out a pool account and make final payments to the farmers, the board deducts each pool's operating costs from its net returns, taking into account the relevant average discounts for the various grades. A per-unit net return is calculated for each grade based on average discounts and tonnage sold. Each farmer receives a final payment based on the average price for the grade of wheat delivered minus the initial payment received earlier in the crop year.

Board Pricing Practices Lack Transparency

As the sole marketing agent for western prairie wheat and barley entering interprovincial or export trade, the board has complete authority over pricing. The board has unlimited authority to offer differentiated prices—relatively high prices for some markets and lower-than-posted prices in other key markets—either in order to initiate new business or expand its market. The board's pricing practices are kept in check by concern for pool return deficits, which would trigger Canadian government intervention and reimbursement. The board has incurred only two wheat pool account deficits since 1943. The larger of the two deficits, totaling 26 million Canadian dollars, occurred in 1985 when world prices were depressed, in part because of the introduction of the U.S. Export Enhancement Program.

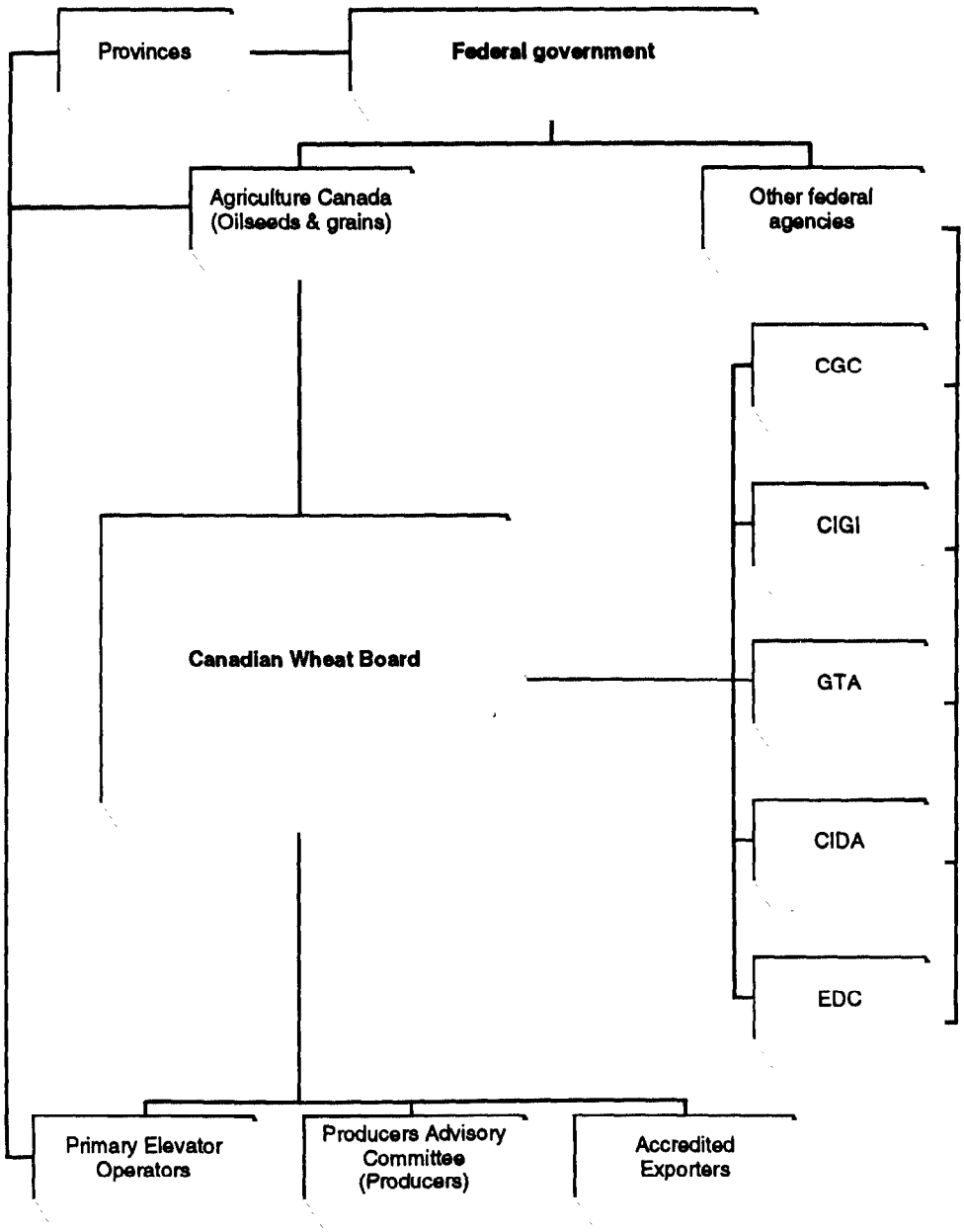
The United States and other grain-exporting countries have criticized the board's pricing practices because they lack price transparency. The board does not reveal selling prices but says it sells its commodities at competitive rates. Board officials told us that nontransparency is justified because, unlike its competitors, the board does not receive public funds or direct government subsidies for its activities. They stated that the board treats proprietary price information no differently from large grain-exporting companies in the United States. Large grain-exporting companies, however, elect to have their commodity prices quoted on various market exchanges, thereby revealing their daily price movements as indicators of their export market transactions. In addition, we were told that the board is reluctant to reveal even very old prices primarily because it is interested in protecting customers, who have learned to trust the board and its reputation for keeping purchase prices confidential. Board officials stated that by creating a confidential atmosphere, it can more effectively

compete in the international grain market. In addition, nontransparency reduces the possibility that farmers will criticize the board for underpricing specific sales.

Other Organizations Participate in the Grain Export Marketing System

The Canadian Wheat Board is at the center of an elaborate government, private, and semipublic network to market and distribute Canadian grains from the western prairies. Several government agencies and other grower and marketing organizations support the board's export activities. Figure 2.1 graphically presents the interrelationships of various participants in marketing grain in Canada. Appendix IV explains their functions and responsibilities.

Figure 2.1: The Canadian Wheat Marketing System



Legend

CGC - Canadian Grain Commission
CIGI - Canadian International Grains Institute
GTA - Grain Transportation Agency
CIDA - Canadian International Development Agency
EDC - Export Development Corporation

The Canadian Government Assists Its Wheat Industry

The Canadian government assists its agricultural producers to help maintain the country's domestic production and its market share of the global grain market. Income support to wheat farmers is delivered through the Agricultural Stabilization Act, crop insurance, the Special Canadian Grains Program, and the Western Grains Stabilization Program. A freight rate subsidy, known as the "Crow's Nest Pass Agreement," and government liability for any pool deficits that cannot be covered by the Canadian Wheat Board are indications of government intervention on behalf of Canadian wheat prices. Canada also supports its grain-marketing infrastructure through its research and advisory services and the development of transportation facilities.

The main source of government assistance to grain producers is the freight rate subsidy known as the "Crow's Nest Pass Agreement." In 1897 the government of Canada signed this agreement with the Canadian Pacific Railway, committing the railway to transport prairie grains to the Great Lakes port of Thunder Bay at rates that were fixed "in perpetuity." These rates were later extended to other railways and to the export of grains and flour through west coast ports (e.g., Vancouver, Prince Rupert, and Churchill). Over the years the statutory rates were extended to cover dozens of other products, ranging from alfalfa to oilseeds.

Producers of export grains and oilseeds on the prairies have benefited from very low fixed rates to transport their products to export locations. The statutory rates in effect increased on-farm revenue for prairie-grown bulk commodities. The Crow's Nest Pass benefits significantly influenced production patterns and exports of grains and oilseeds in the prairie provinces, as they changed the incentives for production of all agricultural commodities in western Canada. The higher farm revenue effectively increased farm land values in the prairies. Moreover, farmers produced more wheat and barley for export and fewer feed grains and were discouraged from diversifying into high-value specialty crops. Lower feed grain production increased domestic feed grain prices and inhibited grain-based, value-added economic activities like feed processing, livestock production, trucking, and meat processing. Further, subsidized transportation of export grains from the prairie provinces also encouraged crop growing in marginal lands while discouraging crop rotations and summer fallow.

Concern about these effects prompted the Canadian government to search for alternatives to the Crow's Nest Pass benefits. In 1983 the Parliament passed the Western Grain Transportation Act, which modified the Crow's

Nest Pass benefit to be 658-million Canadian dollars per year on a continuing basis.

A recent series of research papers on western Canadian grain transportation policies by the policy branch of Agriculture Canada assessed the potential economic and financial consequences of eliminating the rail transportation subsidy to grain and oilseeds producers. The study results, summarized in table 2.2, estimated that Canadian wheat exports would be approximately 2 percent lower without the freight rate subsidy. In contrast, barley exports would fall by nearly 12 percent without the subsidy.

Table 2.2: Expected Effects of Eliminating Crow's Nest Pass Benefits

Percent in figures

Activity	Wheat	Barley	Flax	Canola
Plantings	-1.8	-2.4	4.7	-1.1
Production	-1.5	-1.8	4.3	0.9
Exports	-1.9	-11.9	4.3	-1.1

Source: Regional Implications of Compensatory Freight Rates for Prairie Grains and Oilseeds, Agriculture Canada, Policy and Grains and Oilseeds Branch (Ottawa: Jan. 1991).

Table 2.3 shows that elimination of Crow's Nest Pass benefits would reduce the income of crop farmers while raising the income for those farmers who depend on feed to raise beef and hogs. The province of Saskatchewan is more dependent on the Crow's Nest Pass benefits than either Alberta or Manitoba. In the three main grain-producing provinces of Alberta, Saskatchewan, and Manitoba, the value of land would decline by 100.32, 59.30, and 53.87 Canadian dollars per acre, respectively.

Table 2.3: Expected Financial Impact of Eliminating Crow's Nest Pass Benefits, by Province

Canadian dollars in millions

Impact	Alberta	Saskatchewan	Manitoba
Net profit margins[a] crop sector	-$283.0	-$390.0	-$109.0
Net profit margins beef and hog sectors	42.7	31.6	34.8
Government payments to crops	-198.4	-325.6	-92.9
Government payments to livestock	- 40.1	3.0	1.0
Change in agricultural gross domestic product[b]	- 74.3	-360.8	-243.3
Change in nonagricultural gross domestic product	- 1.0	-7.3	-13.7

[a]Net profit margins are returns above variable costs.

[b]Gross domestic product is the market value of goods and services excluding receipts from business operations in foreign countries.

Source: Regional Implications of Compensatory Freight Rates for Prairie Grains and Oilseeds.

The Government Offers Export Credit Guarantees

Throughout the 1980s competitive credit terms were a significant feature of international trade in wheat. Generous credit arrangements became a growing requirement for wheat exports as stocks of wheat rose steadily in exporting countries and as developing countries accumulated huge debts. Overall, these credit terms have not led to any sustained growth in world import demand for wheat. Instead, the main results have been a redistribution of market shares among the major exporters in key markets.

The Canadian government has guaranteed credit for export of grains, especially wheat, through various agencies for over 30 years. The credits have been, for the most part, short term (3 years or less). The board began offering credit sales in the 1960s when it extended credit to China and East Germany. In turn, China became the first signatory of a long-term grain agreement with the board.

The 1935 Wheat Board Act empowered the board to enter into commercial banking arrangements and to borrow money to finance sales of western grain on credit terms of 3 years or less and to extend credit at or slightly below prevailing commercial interest rates. The board's debts are ultimately the responsibility of the Canadian government because the board is a crown corporation.

The federal cabinet, in general, and the Ministry of Finance set eligibility and credit limits based on an analysis of credit risks for potential

customers. The Ministry categorizes countries as "credit worthy," "reviewed creditworthy," and "noncreditworthy." Credit limits are generally established for a 2-year period and cover approximately 40 countries. The board negotiates with the Ministry on credit limits for other countries on a case-by-case basis. Once credit limits are established, the board is free to negotiate the terms and extend the necessary credit. The ability of the board to extend credit gives it a competitive advantage in selling grain to countries that might not be able to secure credit elsewhere. Canadian officials said that the export credit program has allowed the board to diversify its customers and obtain access to markets in North Africa, Brazil, and Iraq.

Australia's Grain Export Marketing System

Australian grain production is risky and is usually undertaken in conjunction with beef and/or wool production. Wheat yields are relatively low compared to the yields of other major producers because of soil and climatic factors. The principal grain crop is wheat, the vast majority of which is sold for export.

The Australian Wheat Board is the sole purchaser and primary marketer of wheat for export and one of several purchasers of wheat for domestic consumption. The board has operated under a series of laws known as "marketing plans," which are reviewed every 5 years. The most recent plan, embodied in the 1989 Wheat Marketing Act, instituted a number of changes reflecting the government's philosophy of decreasing assistance to industry.

As in Canada, wheat growers can deliver their crops to the Australian Wheat Board, which operates a number of pools each year. Wheat is segregated by the different classes and varieties marketed by the board. Growers are paid initial payments upon delivery, and the board markets the grain for export. Sales revenue returned to farmers is reduced by the board's operating costs, including storage, handling, transportation, and market promotion. Once all the wheat has been sold, final payments are made and pool accounts are closed out.

The board borrows funds on the domestic and international capital markets to finance initial payments. Government guarantees help to lower the interest rates paid. Another source of board operating revenue is a newly established Wheat Industry Fund, which is supported by levying payments on wheat growers.

Board prices are based on a number of factors including daily price fluctuations on U.S. futures market competitors' prices, and world supply and demand. In order to remain competitive in markets where traders are offering lower subsidized prices, Australia emphasizes grain quality and service. It also has entered into long-term grain agreements to help ensure market access and reduce planning uncertainty. In addition, the board provides credit to some customers.

The Australian government instituted economic reforms in the mid-1980s aimed at reducing assistance to private industry. The objective was to increase competitiveness and industry responsiveness to technological change and market conditions. As a result, the guaranteed minimum price on wheat sales was eliminated. Subsidies for export inspection services and

fertilizer were also dropped. Moreover, the government ceased setting artificially high domestic prices that had been used to stabilize wheat growers' incomes. Other forms of government assistance are still available to all primary producers, however, including research funding, adjustment schemes, tax concessions, and export incentives.

Recent legislation has also introduced competition, cost consciousness, and efficiency into the grain transportation and storage systems. The board moves grain through bulk-handling authorities and rail authorities, both of which are under state jurisdiction.

In recent years, favorable credit terms have accompanied 10-12 percent of sales. This number represents a significant decrease from the 27-percent figure in the 1986-87 growing season. Much of this decline is due to increased competition from subsidizing countries that also offer attractive credit terms.

Background

Australia is similar in size to the United States but has a population of only 17 million, concentrated in major cities along the coasts. Australia's topography, climate, and soil types vary across the country. Less than two-thirds of Australia's land area is suitable for crops or grazing. The principal grain-producing areas are in the "wheat-sheep zone," a narrow belt that curves around the southern half of Australia. Depending on the location, rainfall ranges from about 8 to 31 inches per year, and the growing season varies from 5 to 9 months. Variable climatic conditions, such as periodic droughts and undependable rainfall in these areas, make grain production a high-risk activity for most farmers.

The largest percentage of wheat land is also suited for other types of grain or for livestock. In Australia it is not uncommon to find farms that are highly integrated in three enterprises: wheat, sheep, and beef cattle. Crop and livestock rotation varies considerably depending on relative prices. Australia produces a number of grains, with wheat representing 63 percent of total grain production and 72 percent of total grain exports. Only spring wheat is grown in Australia's temperate climate. Wheat yields are low compared to the yields of other major producers and can vary as a result of periodic droughts. Land devoted to wheat production has been decreasing steadily through the 1980s. This decrease was due to declining world grain prices and increasing prices of alternative farm products (e.g., wool).

Even though Australia is a relatively small wheat producer, accounting for about 3 percent of the world wheat harvest, it exports about 85 percent of the wheat produced, capturing about 12 percent of the global wheat market. The Australian wheat industry is one of Australia's top export earners, totaling about 3-billion Australian dollars and accounting for up to 10 percent of total export revenue. Since 1985 Australia's major wheat customers have included China, Egypt, Iran, Iraq, Japan, and the former Soviet Union.

The Australian Wheat Board Is the Primary Marketer of Wheat for Export

Marketing boards are common in Australia. These institutions were first created in the 1920s after voluntary cooperatives failed to increase and stabilize producer returns. Regulation of wheat marketing at the federal level began in 1914 when the first wheat board was established to acquire wheat, fix prices, and advance payments to growers on delivery of their crop. Between the two world wars wheat was traded privately, and then in 1939 the board was reestablished.

Since 1939 the Australian Wheat Board has been legally designated as the primary buyer and seller of Australian wheat. From 1948 to 1989 the board operated under a series of laws, or "marketing plans," which contained sunset clauses requiring the entire legislation to be reviewed every 5 years. The 1989 Wheat Marketing Act established the continued existence of the board and included a number of changes that reflected a government, industry, and grower desire to have the board function more as a corporation. Among these changes were the following:

- The board no longer has sole purchase authority for wheat bound for the domestic market. Growers now have the option of selling their wheat to the board, domestic traders, flour millers, or any other interested party in the domestic market.
- The board can trade in grains other than wheat, thus providing more flexibility in packaging export deals.
- The board has a capital base for commercial operations supported by growers.
- There no longer is a guaranteed minimum payment for growers who sell their wheat for export. Instead they receive only what the market will return.
- The board must use the most cost-effective transportation to move wheat from the point of delivery to the point of sale.

- There no longer is a 5-year sunset clause for marketing plans, although the current provision for government guarantees of board borrowing expires at the end of the 1993-94 growing season.[1]

The Australian Wheat Board is a nonprofit organization that functions like a large cooperative. It consists of a chairperson selected by the Minister for Primary Industries and Energy, eight general members nominated by a selection committee based on their skills in production and/or marketing, and a government member selected by the Minister. Should the chairperson choose to act in a nonexecutive capacity, a managing director can be appointed by the board.

The board is an international, independent grain marketer that markets wheat and other grain on behalf of growers. The board also provides a wide range of export promotion and customer service activities.

The 1989 act gave growers the choice of delivering their wheat to the board for inclusion in a pool or of selling it for cash to the board or to any other operator (e.g., flour miller or grain trader). Wheat that is not delivered to a pool is traded in the domestic market for human consumption and feed grain.

The Board Pools Wheat and Pays Growers

The board purchases all Australian wheat bound for export and combines it into a number of pools based on quality and variety. The board then sells the wheat on the international market and returns the proceeds, minus expenses, to growers. Through the pooling system, all growers of a similar quality and variety of wheat generally receive the same price. However, growers' transportation and storage expenses are disaggregated in order to charge each grower as accurately as possible for actual costs. Therefore, net pool revenues differ accordingly.

For each growing season, the Australian Bureau of Agricultural and Resource Economics estimates pool revenues twice—first while the crop is

[1]According to the Australian Agricultural Counselor in Washington, D.C., provisions with sunset clauses, such as those dealing with Commonwealth guarantees, will be revisited periodically, but the whole law will not have to be reviewed every 5 years as in the past.

still growing and again after the harvest is over and factors affecting price (e.g., crop quality and total production) are better known.[2] The first estimate serves as the basis for an initial board payment, known as the "harvest payment," which is made within 21 days of receiving wheat from growers. The size of the initial payment is based on anticipated changes in world wheat prices. If world prices are falling, the board pays growers a smaller portion of the total estimated revenues to cushion against further price declines. The second estimate becomes the basis for the "post harvest" payment, which is made in March of each year. Additional payments may be made over the next 2 or 3 years.[3] When all wheat in a pool has been sold and all other financial activity has ceased, the board closes the pools. Any additional net profit is distributed as a final payment to growers.

The Board Borrows Funds to Finance Initial Payments

To finance initial grower payments, the board borrows funds on domestic and overseas capital markets. The board repays the loans with proceeds from export revenue. The board's annual borrowing requirement is about 2-billion Australian dollars, based on average daily outstanding balances. This activity level makes the board the biggest short-term borrower in Australia and one of the largest in the world, according to the board's Deputy General Manager of Marketing.

Government Loan Guarantees Lower Board Interest Rates

Under the 1989 Wheat Marketing Act, the government guarantees board loans up to a specific percentage of anticipated sales revenue. The legislation provides that when the board's debts exceed the amount of money available to pay its loans, the government will pay the amount of the excess. This guarantee provision limits the extent of government guarantee each year to a percentage of estimated revenues. In the 1989-90 crop year the guarantee limit was 90 percent. As prescribed in the 1989 Wheat Marketing Act, the guarantee limit will decrease by 2.5 percent each year, reaching 80 percent in 1993-94. The board and Australian government officials told us that it is unclear whether the guarantees will continue after 1994. They anticipate that before 1994 the government will formally

[2]The Australian Bureau of Agricultural and Resource Economics is an independent research arm of the Department of Primary Industries and Energy.

[3]Depending upon market conditions, some wheat is not sold for up to 18 months after harvest, and some wheat is sold under credit arrangements with terms of up to 3 years.

review the 1989 Wheat Marketing Act's guarantee provision to determine whether to continue guaranteeing board loans after 1994.

The government guarantee on board borrowings allows the board to obtain more favorable interest rates. According to the board's subjective estimates, interest rates would increase by between 0.1 and 0.15 percent if the government guarantees were removed. Some lenders with whom the board does business stated that if the government's guarantees ended, interest rates would increase by between zero and 0.12 percent. According to board officials, a 0.1-percent increase in interest rates would cost the board about 2-million Australian dollars annually.

Board Borrowing Has Been Conservative

In the 2 marketing years since the 1989 Wheat Marketing Act (1989-90 and 1990-91), the board has taken a conservative approach to borrowing and making initial payments. Department of Primary Industries and Energy officials said that although the board could have borrowed and paid growers up to the limits set out in the act, in the preceding 2 years it borrowed only 70 percent of estimated revenues. For the 1990-91 initial payment, the board actually paid growers even less than 70 percent of estimated sales revenue. If the board had borrowed and made an initial payment at the maximum level allowed by law, it might not have received sufficient sales revenue to pay back lenders. This deficiency would then have triggered guarantee payments. In fact, according to officials at the Grains Council of Australia, by March 1991 the estimated net sales revenue was 20 Australian dollars per metric ton lower than the October 1990 estimate.[4]

The board is reluctant to trigger government guarantees, however, board officials stated that the purpose of the government guarantee provision of the 1989 Wheat Marketing Act is not to inject funds into the industry, but rather to provide a mechanism that allows the board to obtain the lowest possible interest rates on its loans. Borrowing more than the board did in 1990-91 would have risked calling on the government guarantees and thereby would have infringed on the spirit of the 1989 legislation.

[4]The Grains Council of Australia represents the interests of all grain growers at the national level. The council reviews the Australian Wheat Board's corporate plans and holds consultations with the board at least annually. This interaction promotes understanding between growers and the board and helps hold the board accountable to growers. The council was instrumental in establishing a grower-supported fund to provide a capital base for board operations.

The Wheat Industry Fund Benefits Entire Industry

The Australian Wheat Board derives its operating revenue from commercial sales of wheat and from a newly established Wheat Industry Fund. The 1989 Wheat Marketing Act established the Wheat Industry Fund, which is supported by levy payments from farmers. The primary objective of the fund is to accumulate a capital base to enable the board to undertake investment activities to benefit the wheat industry as a whole. Funds can be used for purposes such as direct investment, provision of guarantees to finance projects, or insurance support. Although the board manages the fund, the Grains Council of Australia, in consultation with the board, will determine specifically how the fund will be used.

Because levy collections started in 1989, the Wheat Industry Fund has not had the opportunity to build up substantial reserves, according to board officials. As a temporary measure, Wheat Industry Fund regulations provide for government guarantees of up to 100 million Australian dollars on the board's Domestic Trading Division's borrowings. According to the board's Senior Manager for Corporate Affairs, the guaranteed loans operate like an overdraft account. The board borrows funds as needed to purchase wheat for domestic trading and repays the loans as it receives domestic sales revenues, he said. The 100 million Australian dollar guarantee under the Wheat Industry Fund regulations is in addition to the borrowing guarantees contained in the 1989 act.

The Wheat Industry Fund Levy Act of 1989 provides that a levy be applied to the sale of all wheat produced in Australia. The levy is paid when the wheat first changes hands from grower to initial purchaser. The levy amounts are set at the ministerial level, based on recommendations by the Grains Council of Australia. As of July 1, 1990, the levy was set at 2.77 percent of the net value of wheat sold. Two percent of the value of the wheat sold goes into the Wheat Industry Fund, and the remaining 0.77 percent goes to finance wheat research.

Growers accumulate equity in the Wheat Industry Fund through their levy contributions. The board must annually determine each grower's equity in the fund, which includes the total levies paid, the earnings of the fund, and the value of the fund's assets. The board also must provide this information in a statement to each grower. A grower may request a certificate showing total equity held and can sell or transfer these certificates, similar to shares in a business. In addition, after consulting with the Grains Council of Australia, the board may make payments to equity holders, comparable to corporate dividends.

The Board's Pricing Practices Are Confidential

The board prices its wheat for export based on a number of factors, including daily price fluctuations on the U.S. futures market, competitors' prices, and total world supply and demand for wheat. The board claims that grower cost of production is not a factor in determining export prices. The board's ability to maintain a presence in markets where U.S. and EC subsidies are present indicates that price is not the only factor influencing a buyer's purchase decisions. Although the board has had to lower its price in these markets, the board has been able to obtain prices above subsidized prices by emphasizing the quality of Australian wheat (i.e., white, clean, dry, and insect free) and Australia's geographic proximity (for Asian customers). Buyer loyalty is also a factor in a country's purchase decisions. Board officials said that if price were the only factor in a buyer's decision, the board could not compete against subsidizing countries.

Because the board maintains confidentiality in its business dealings, specific details of pricing arrangements were not available to us. The board publishes wheat prices in the Australian Financial Review; however, these prices do not reflect the specific selling price of board wheat. The board sells its wheat based on market prices, which vary daily. Unlike the United States and the European Community, where taxpayers' funds are used to subsidize exports and prices are open to public scrutiny, the board receives no government export subsidies. Therefore, business transactions remain confidential between buyer and seller. According to the board, confidentiality is a critical principle and a selling point for board customers. Although board prices are available to other traders who participate in public tenders, the board maintains confidentiality regarding prices offered to buyers such as the former Soviet Union and China, who deal outside the tender system.

The Board's Marketing Strategy Includes Promotional Activities and Long-Term Agreements

The board's consistent, long-term marketing strategy has been to supply large and regular customers with Australian wheat in the quantities they require. This strategy has been maintained by providing marketing support, technical assistance, promotional activities, and long-term agreements to develop and maintain customer loyalty.

Market Promotion Activities

The board conducts an extensive and comprehensive range of export promotion and customer service activities. These activities include arranging milling and baking seminars, providing technical assistance programs, sending and hosting technical delegations, and participating in trade fairs. The technical delegations sent to other countries usually include marketers and technical people to explain the quality attributes of Australian wheat. The board deducts the costs of the services from grower proceeds, according to the board's Assistant Manager for Marketing.

Long-Term Agreements

Thirty percent of the board's sales are undertaken using long-term agreements, ranging from 2 to 5 years, according to the board's Assistant Manager for Marketing. Board officials stated that buyers perceive benefits associated with long-term agreements. These benefits include improved security of supply, favorable prices or credit terms, improved import planning, and government-to-government dealings.

Countries with which the board has long-term agreements include Egypt and Yemen. The board currently has no long-term agreements with China or the former Soviet Union. Between 1979 and 1987, the board had various long-term agreements with Abu Dhabi, China, Egypt, Iraq, Yemen, South Korea, and Japan, although long-term agreements did not exist with all of these countries each year.

Economic Reforms Aim to Reduce Government Assistance

The Australian government initiated economic reforms in the mid-1980s to reduce its assistance to private industry, according to officials of the Department of Primary Industries and Energy. The objective was to improve industry performance and increase the competitiveness of exporting and importing industries. In their 1988 policy statement, the Minister for Primary Industries and Energy and the Minister for Resources stated that reducing government assistance should encourage structural adjustment and eventually lower industry costs.

To facilitate structural changes within industries, the government has shifted away from providing protective tariffs to giving assistance that will increase industry responsiveness to changing technological and market conditions. For the wheat industry this assistance includes adjustment schemes to assist farmers in expanding or winding down their operations and funding research on improved plant-breeding techniques.

According to Australian officials, as a result of economic reforms overall assistance to the wheat industry was reduced throughout the 1980s. The government eliminated the guaranteed minimum price to growers as well as subsidies for export inspection services and fertilizer. In addition, the government no longer administratively sets artificially high domestic prices in order to subsidize grower incomes. Some assistance remains, but this assistance is available to all primary producers.

Guaranteed Minimum Price Has Been Eliminated

With the passage of the 1989 Wheat Marketing Act, the government no longer provides a guaranteed minimum price to growers. Before the 1989 act, growers were guaranteed a minimum price based on sales revenue of previous seasons and the estimated sales revenue for the current season. If current-season sales returns were less than the guaranteed minimum price, the government used to pay growers the difference. Such a situation occurred in the 1986-87 growing season. The guaranteed minimum price, because it was heavily based on prior seasons' higher prices, turned out to be greater than the actual sales revenue for that season, requiring a 201-million Australian dollar payment from the government.

Some Subsidies Have Been Removed

In January 1991 private industry began paying the full cost of export inspection services. Previously, private industry paid 60 percent of export inspection costs, while the government paid the remainder. Moreover, the government eliminated subsidies for fertilizers in 1988.

The government no longer subsidizes the board's interest payments, as it did between 1979 and 1983. Until 1979 the board received concessional interest rates on loans from the Reserve Bank of Australia. In 1979 the board had to buy almost 18-million metric tons of wheat, 5 million metric tons more than expected. Concerned about increased liquidity in the market, the bank did not finance the additional deliveries. Consequently, the board began borrowing on the domestic money market to finance part of its requirements. To compensate the board for paying higher interest rates on the commercial market, the government paid the board the difference between Reserve Bank and commercial interest rates. In 1983 the government passed legislation to permit the board to borrow in overseas markets. It also discontinued the interest subsidies.

Domestic Pricing Changes Have Been Made

Until 1989 the Australian government used domestic pricing policies to stabilize wheat growers' incomes. The government administratively set the price at high levels for wheat sold domestically to offset the effects of low export prices on growers. In essence, Australian wheat consumers were forced to subsidize growers' incomes. Artificially high domestic prices were one of the largest forms of assistance to the wheat industry between 1985 and 1989, totaling 76 million Australian dollars. However, the effect of domestic pricing arrangements on growers' income was limited because only about 15 percent of the wheat produced was sold domestically.

Remaining Assistance Is for All Primary Producers

Other forms of government assistance remain and are available to all primary producers. According to Australian officials, the assistance, in the form of research funds, adjustment schemes, tax concessions, natural disaster relief, and export incentives for market promotion, has a negligible effect on wheat production.

Wheat Transportation and Storage Costs Are Shared

Recent changes in legislation have also introduced competition and cost consciousness into the transportation and storage systems, with a view to increased efficiency. These changes were based in part on a 1988 Royal Commission review of grain storage, handling, and transport. The Commission estimated that more effective and efficient systems brought about by competition could result in short-term savings of up to 10 Australian dollars per metric ton.

Growers use their own trucks or employ contractors to transport their wheat from the farm to a local silo, where the wheat becomes board property. Wheat usually moves by rail from the local silo to the larger bulk-handling authorities, where it is loaded on ships for export.[5] According to officials with the Department of Primary Industries and Energy, growers pay the cost of transportation to the first depot. From there, the bulk-handling authorities, in concert with state rail authorities, arrange and pay for the rest of the transportation costs. These costs are deducted from the final pool returns. Although most buyers arrange and pay for their own shipping, the board may charter ships at the request of buyers. Australian vessels must be used only when shipping exports to New Zealand.

[5]Bulk-handling authorities in each wheat-producing state are the primary facilities for storing wheat. The authorities own and operate all country silos and seaboard facilities and store grain on the board's behalf until the board makes a sale. The board deducts storage costs from growers' returns.

Before 1989 some state rail authorities had a legislated monopoly over grain transport. The board is now required to move wheat from point of purchase to point of sale by the least costly mode of transportation. In addition, bulk-handling authorities no longer have a storage monopoly over all wheat produced in their state. With deregulation of the domestic wheat market under the 1989 Wheat Marketing Act, growers have additional options on where to deliver their wheat bound for the domestic market. Growers can now deliver wheat to any bulk-handling authority or to domestic traders. Storage, handling, and transportation costs are now charged to specific growers, rather than pooled and charged equally to all growers.

According to the Australian Agricultural Counselor in Washington, D.C., on-farm grain storage may become more common. Before the 1989 Wheat Marketing Act, there was no incentive for growers to store wheat because growers would get immediate payment at a guaranteed price upon delivering their wheat to the bulk-handling authority. Now that growers have an option to sell their wheat directly on the domestic market, they may opt to store the wheat on their farms and wait for a better price than that offered by the board.

State Jurisdiction Over Grain Storage and Transportation

The bulk-handling authorities are under state jurisdiction and, according to Department of Primary Industries and Energy officials, receive no direct government funding. Ownership of these handling authorities varies by state—some are cooperatives, others are state owned. However, the authorities may receive government guarantees on loans for capital projects. State governments may also provide loan guarantees. We did not attempt to determine the specific details of each state's arrangements.

Rail authorities, also under state jurisdiction, receive some government assistance for overall operations. However, the assistance is not specifically for transporting grains. According to the board's Manager of Operations Policy, state rail systems operate at a loss because of inefficiencies and difficulty in achieving economies of scale.[6] To cover losses, the states or the Australian government contribute funds. Any deficit funding, however, covers the total rail system, not just the segments transporting grain. Bulk grains are regarded as a good revenue source for

[6]For example, Australian wheat achieves low yields per acre, requiring plantings to be spread out over a wide area. Transporting relatively low volumes makes it difficult to achieve economies of scale and realize returns on infrastructure investments.

rail and pay more than their fair share, according to the official. This revenue offsets losses from other operations in the rail system. In addition, Australia's rail transportation costs are high compared to similar costs of its major competitors.

Export Credit Is Necessary for Making Some Sales

Australia has recognized that the provision of export credit is increasingly important to making export sales in the world market. In addition, the availability of credit insurance is an essential element in the ability to offer credit. About 10-12 percent of the board's sales are on credit terms, usually for 2-3 years, according to the Manager for Insurance, Export Finance and Insurance Corporation, an arm of the Australian Trade Commission.[7]

All of the board's export credit sales are insured through the Export Finance and Insurance Corporation. The board pays risk-based premiums to the corporation. These premiums vary according to the length of the credit terms and the political stability of the importing country. Typically, premiums amount to about 3 percent of sales for a 2-year credit term. The percentage of insurance coverage also varies by individual transaction. For example, coverage for board sales is usually 80 percent of the value of the sale, but for some recent sales to Iraq, credit insurance was reduced to 70 percent. The board is at risk for the uninsured portion of the sale. The Export Finance and Insurance Corporation pays claims out of its own funds. The Corporation is backed by a government guarantee in case its funds are exhausted, but the guarantee has not been invoked in the Corporation's 35 years of operation.

The Corporation can refer to the Commonwealth cabinet proposed credit sales that it deems too risky for its own account. The cabinet has the power to instruct the Corporation to insure sales to high-risk countries based on national interest. For credit insurance on such sales, the board pays a 25-percent surcharge, in addition to the Corporation's premiums, to cover the perceived higher risk. This "national interest" credit insurance allows the board to do business with some of its major customers—credit sales to Egypt, Iraq, Yemen, and the former Soviet Union have been insured in this manner. The government pays any insurance claims out of the Treasury.

[7]The Australian Trade Commission is a statutory body within the Department of Technology, Industry, and Commerce. As Australia's official international business promotion and facilitation agency, it provides assistance with export planning, market intelligence, marketing support, insurance and financial services, and grants and incentives.

For 1989-90, the government paid 1.1 million Australian dollars in such claims, primarily due to the debt rescheduling with Egypt in 1987 and overdue payments from Iraq as a result of United Nations sanctions in August 1990.

Foreign policy considerations come into play when the government decides whether credit sales should be insured in the national interest. Several ministers have input into determining whether insuring credit sales to a particular country would be in the country's national interest, according to an official with the Department of Technology, Industry, and Commerce. The ministers may consider trade relations, commercial significance, political factors, and/or foreign relations.

Average Regional Market Share of Major Exporters of Wheat, 1965-90

Period averages in percent

Region	Exporter	1965 to 1970	1971 to 1975	1976 to 1980	1981 to 1985	1986 to 1990
Western Europe	European Community	26	44	51	61	77
	United States	25	24	21	20	10
	Canada	29	21	20	16	10
	Australia	9	5	1	0	1
	All others	11	7	7	3	2
Sub-Saharan Africa	European Community	26	29	25	32	34
	United States	32	42	58	53	40
	Canada	8	11	8	6	17
	Australia	29	16	5	6	7
	All others	5	2	3	3	3
North Africa	European Community	39	26	23	25	16
	United States	47	35	37	39	53
	Canada	7	10	11	13	9
	Australia	3	26	21	21	20
	All others	3	4	8	2	2
Middle East	European Community	7	2	3	6	11
	United States	44	55	43	26	20
	Canada	8	12	11	11	16
	Australia	38	28	37	39	43
	All others	4	2	6	18	11
Soviet Union	European Community	2	2	2	17	28
	United States	0	53	38	22	31
	Canada	81	33	32	32	27
	Australia	1	8	15	9	8
	All others	16	4	14	21	6
Eastern Europe	European Community	58	18	21	58	45
	United States	4	45	31	3	23
	Canada	30	17	27	22	9
	Australia	0	9	1	0	0
	All others	7	10	20	17	22
Asia except Pacific Rim	European Community	2	8	7	10	10
	United States	76	55	50	58	49
	Canada	10	15	9	10	12
	Australia	12	16	31	20	25
	All others	1	6	3	4	4

(continued)

Period averages in percent

Region	Exporter	1965 to 1970	1971 to 1975	1976 to 1980	1981 to 1985	1986 to 1990
NICS,[a] China & Japan	European Community	3	0	0	3	5
	United States	32	50	48	52	44
	Canada	31	32	25	25	30
	Australia	29	16	23	16	18
	All others	5	1	3	4	3
South America	European Community	2	0	1	1	4
	United States	50	64	61	70	43
	Canada	6	14	17	17	23
	Australia	6	8	0	0	1
	All others	36	14	21	11	29
Central America	European Community	0	3	3	11	11
	United States	63	75	61	45	52
	Canada	36	22	33	32	31
	Australia	0	0	1	4	1
	All others	1	0	2	7	4

[a]NICS denotes the newly industrializing Asian countries, which include Hong Kong, Singapore, South Korea, and Taiwan.

Source: United Nations Trade Data System.

Annual Support Expenditures for Wheat in Canada, Australia, the United States, and the European Community, 1980-1990

Table II.1: Government Support to Producers of Wheat in Canada

U.S. dollars in millions

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Market price support of which	$316	$358	$430	$451	$325	$540	$725	$657	$274	$415	$915
Transportation	329	364	430	451	325	372	542	457	274	415	487
Two price wheat	-4	0	0	0	0	151	183	200	0	0	0
Corn competitive	-9	-6	0	0	0	0	0	0	0	0	0
Pool deficits	0	0	0	0	0	18	0	0	0	0	428
Direct payments of which	63	92	45	134	313	469	935	893	671	227	292
Deficiency payments	0	0	9	0	0	0	18	0	71	0	0
Disaster insurance	63	42	36	51	124	174	63	50	221	227	93
Embargo compensation	0	50	0	0	0	0	0	0	0	0	0
WGSP & write downs	0	0	0	83	185	260	420	434	0	0	0
SCGP	0	0	0	0	0	0	410	409	0	0	200
Other	0	0	0	0	5	35	25	0	379	0	0
Reduction of input costs	11	15	54	61	66	40	27	33	38	35	52
General services	29	43	47	57	69	45	43	42	52	53	62
Subnational supports	86	138	144	128	151	122	190	130	146	150	188

Legend

WGSP - The Western Grains Stabilization Program

SCGP - The Special Canadian Grains Program

Source: Based on GAO analysis of Tables of Producer Subsidy Equivalents and Consumer Subsidy Equivalents 1979-1990, OECD (Paris).

Table II.2: Government Support to Producers of Wheat in Australia

U.S. dollars in millions

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Market price support of which	$-3	$22	$21	$44	$29	$29	$17	$3	$11	0	0
Domestic pricing	-3	22	21	44	29	29	17	3	11	0	0
Direct payments of which	2	1	4	5	3	1	139	0	0	0	0
Deficiency payments	0	0	0	0	0	0	139	0	0	0	0
Disaster	2	1	4	5	3	1	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Reduction of input costs	23	25	22	41	41	52	48	51	59	$75	$68
General services	49	46	45	30	26	20	22	23	29	29	29
Subnational supports	51	56	81	78	79	68	71	80	95	102	98
Other	31	58	24	12	14	9	7	6	6	6	6

Source: Based on GAO analysis of Tables of Producer Subsidy Equivalents and Consumer Subsidy Equivalents 1979-1990, OECD (Paris).

Table II.3: Government Support to Producers of Wheat in the United States

U.S. dollars in millions

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Market price support	0	0	0	0	0	$201	$419	$1,373	$592	$246	$1,149
Direct payments of which	$596	$1,250	$732	$3,326	$2,102	2,634	3,975	3,509	1,774	1,069	2,403
Deficiency payments	0	414	476	770	1,044	1,556	3,395	3,290	1,217	573	2,384
Disaster	228	221	12	1	0	0	0	0	469	470	0
Diversion (PIK)	308	508	0	2,332	835	653	215	0	0	0	0
Levies & fees	0	0	0	0	0	0	0	113	0	0	0
Storage	60	111	243	191	176	172	168	106	98	49	20
Loan rate	0	-4	1	32	47	253	197	0	-10	-22	-1
Other	0	0	0	0	0	0	0	0	0	-1	0
Reduction of input costs	382	426	499	667	1,081	858	694	602	644	540	270
General services	185	204	193	184	186	169	130	127	161	177	187
Subnational supports	105	118	128	127	127	120	99	103	102	133	133
Other	95	104	110	83	79	74	53	29	26	40	30

Legend
PIK = Payment-in-kind entitlements

Source: Based on GAO analysis of Tables of Producer Subsidy Equivalents and Consumer Subsidy Equivalents 1979-1990, OECD (Paris).

Table II.4: Government Support to Producers of Wheat in the European Community

U.S. dollars in millions

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Market price support	$2,982	$2,583	$3,301	$2,418	$843	$1,419	$7,003	$8,399	$6,859	$3,172	$7,086
Direct payments of which	180	191	163	195	158	185	178	126	-65	-18	218
Diversion	0	0	0	0	0	0	0	0	0	2	42
Levies	0	0	0	0	0	0	-30	-226	-390	-422	-378
Other	180	191	163	195	158	185	208	352	325	402	555
Reduction of input costs	31	23	23	36	24	21	21	29	44	50	70
National support	938	799	716	571	656	525	720	808	883	868	1,035

Source: Based on GAO analysis of Tables of Producer Subsidy Equivalents and Consumer Subsidy Equivalents 1979-1990, OECD (Paris).

Wheat Producer Subsidy Equivalents for Canada, Australia, the United States, and the European Community, 1980-90

Table III.1: Wheat Producer Subsidy Equivalents in Canada

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Production[a]	19.3	24.8	26.7	26.5	21.2	24.3	31.4	26.0	16.0	24.6	31.8
Producer price[b]	180.0	157.0	146.0	147.0	133.0	108.0	83.0	90.0	147.0	130.0	100.0
Value of production[c]	3.5	3.9	3.9	3.9	2.8	2.6	2.6	2.4	2.4	3.2	3.2
Direct payments[c]	0.1	0.1	0.0	0.1	0.3	0.5	0.9	0.9	0.7	0.2	0.3
Total income[c,d]	3.5	4.0	3.9	4.0	3.1	3.1	3.6	3.2	3.0	3.4	3.5
Gross total PSE[c]	0.5	0.6	0.7	0.8	0.9	1.2	1.9	1.8	1.2	0.9	1.5
PSE per ton[b,e]	26.0	26.0	27.0	31.0	44.0	50.0	61.0	68.0	74.0	36.0	47.0
PSE as percent of total income[f]	14.0	16.0	18.0	21.0	30.0	40.0	54.0	54.0	39.0	26.0	43.0
PSE as percent of price	15.0	17.0	18.0	21.0	33.0	47.0	73.0	75.0	50.0	28.0	47.0

Table III.2: Wheat Producer Subsidy Equivalents in Australia

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Production[a]	10.9	16.4	9.1	22.0	18.7	16.2	16.8	12.4	14.1	14.1	15.7
Producer price[b]	152.0	152.0	152.0	119.0	123.0	94.0	76.0	93.0	140.0	137.0	73.0
Value of production[c]	1.6	2.5	1.4	2.6	2.3	1.5	1.3	1.2	2.0	1.9	1.1
Direct payments[c]	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total income[c,d]	1.6	2.5	1.4	2.6	2.3	1.5	1.4	1.2	2.0	1.9	1.1
Gross total PSE[c]	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
PSE per ton[b,e]	14.0	13.0	21.0	9.0	10.0	11.0	18.0	13.0	14.0	15.0	13.0
PSE as percent of total income[f]	9.0	9.0	15.0	8.0	8.0	12.0	21.0	14.0	10.0	11.0	17.0
PSE as percent of price	9.0	8.0	14.0	8.0	8.0	12.0	24.0	14.0	10.0	11.0	18.0

[a]Millions of metric tons

[b]U.S. dollars per metric ton

[c]In billions of U.S. dollars

[d]Total income is referred to in OECD publications as "adjusted value of production."

[e]PSE per ton is referred to in OECD publications as "gross unit PSE."

[f]Defined as "gross percentage PSE" in OECD publications.

Source: Tables III.1 and III.2 based on GAO analysis of Tables of Producer Subsidy Equivalents and Consumer Subsidy Equivalents 1979-1990, OECD (Paris)

Table III.3: Wheat Producer Subsidy Equivalents in the United States

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Production[a]	64.6	76.2	75.2	65.9	70.7	66.0	56.9	57.4	49.3	55.4	74.7
Producer price[b]	144.0	134.0	130.0	130.0	124.0	113.0	88.0	94.0	137.0	137.0	96.0
Value of production[c]	9.3	10.2	9.8	8.6	8.8	7.5	5.0	5.4	6.8	7.6	7.2
Direct payments[c]	0.6	1.3	0.7	3.3	2.1	2.6	4.0	3.5	1.8	1.1	2.4
Total income[c,d]	9.9	11.5	10.5	11.9	10.9	10.1	9.0	8.9	8.5	8.7	9.6
Gross total PSE[c]	1.4	2.1	1.7	4.4	3.6	4.1	5.4	5.7	3.3	2.2	4.2
PSE per ton[b,e]	21.0	28.0	22.0	67.0	51.0	61.0	95.0	100.0	67.0	40.0	56.0
PSE as percent of total income[f]	14.0	18.0	16.0	37.0	33.0	40.0	60.0	64.0	39.0	25.0	44.0
PSE as percent of price	15.0	21.0	17.0	51.0	41.0	54.0	107.0	106.0	49.0	29.0	58.0

Table III.4: Wheat Producer Subsidy Equivalents in the European Community

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Production[d]	55.0	54.0	60.0	59.0	76.0	65.0	72.0	72.0	75.0	78.0	79.0
Producer price[e]	123.0	167.0	200.0	229.0	248.0	246.0	196.0	161.0	149.0	161.0	141.0
Value of production[f]	6.7	9.1	12.0	13.5	19.0	16.1	14.1	11.5	11.1	12.6	11.2
Direct payments[f]	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.0	0.0	0.1
Total income[f]	6.8	9.2	12.1	13.8	19.2	16.5	14.3	11.6	11.1	12.6	11.3
Gross total PSE[f]	2.1	2.9	4.4	4.1	2.7	3.7	8.2	7.0	5.5	3.4	5.2
PSE per ton[e]	39.0	53.0	73.0	69.0	35.0	56.0	114.0	98.0	74.0	43.0	66.0
PSE as percent of price	31.0	31.0	36.0	29.0	14.0	22.0	57.0	60.0	50.0	27.0	46.0

[a]Millions of metric tons

[b]U.S. dollars per metric ton

[c]U.S. dollars in billions

[d]Total income is referred to in OECD publications as "adjusted value of production."

[e]PSE per ton is referred to in OECD publications as "gross unit PSE."

[f]Defined as "gross percentage PSE" in OECD publications.

Source: Tables III.3 and III.4 based on GAO analysis of Tables of Producer Subsidy Equivalents and Consumer Subsidy Equivalents 1979-1990, OECD (Paris).

Organizations in the Canadian Grain Export Marketing System

The Canadian Wheat Board is at the center of an elaborate government, private, and semipublic network to market and distribute Canadian grains from the western prairies. The principal agencies that represent the Canadian grain marketing systems are described in the following sections.

Agriculture Canada

The Canadian federal government administers its agricultural policies through Agriculture Canada. Agriculture Canada is a cabinet-level institution headed by the Minister of Agriculture. It is functionally divided into three relatively autonomous units that are each headed by a minister of state. The Minister of State for Grains and Oilseeds monitors the Canadian Wheat Board as well as focuses policy attention on agricultural and trade issues that the board supports.

The Canadian Grain Commission

The Canadian Grain Commission is a federal government agency responsible for establishing and maintaining standards of quality for Canadian grains and oilseeds. The Commission conducts harvest surveys to determine quality characteristics of each successive new crop, monitors grain cargo and car lots to determine the quality of grain in the Canadian export and domestic grain-marketing systems, evaluates new varieties of grains in collaboration with plant breeders, and studies grains marketed by other countries. The Commission also regulates grain handling in Canada, including the licensing of all grain elevators and the setting of standards for accurate weights.

The Commission has developed a system of strict control over the varieties of grain allowed for commercial production, and a rigid visual grading system. It also has an extensive quality control and research program to ensure that wheat delivered to terminal elevators is segregated and binned according to grade and, in some cases, according to protein content. Inspections at vessel-loading terminals are regularly conducted to see that specifications for grade are met. Only after all grade specifications are met do the inspectors-in-charge issue a certification of grade, known as a "certificate final."

Cleanliness, uniformity, and consistency are the hallmarks of Canadian grain exports. Intrinsic high quality is guaranteed by varietal testing and selection programs. Uniformity is promoted by the grading system and the bulk-handling system, which blends similar grades together at each stop during the transfer of grain from the farm to the freight vessel. Strict limits on foreign matter, including other cereal grains, are enforced to enhance

the cleanliness of Canadian grain. Cleanliness and the rigid grade certification system have enabled Canada to export grain on the basis of official grade without sample shipments for prior examination by its customers.

The Canadian International Grains Institute

The Canadian Wheat Board and the Canadian Grain Commission use the Canadian International Grains Institute as a research and development arm. As an instructional facility, the institute provides courses in grain marketing, handling, and processing. The institute is a nonprofit educational facility established in 1972 to strengthen and expand markets for Canadian grains and oilseeds and their products. It receives 40 percent of its funding from the Canadian Wheat Board and 60 percent from Agriculture Canada's Grain Marketing Bureau. The institute offers up-to-date information, instruction, and technical assistance to existing and potential domestic and foreign customers. In addition, in cooperation with the Grain Commission, it researches end uses for Canadian grain using the techniques and equipment currently employed in potential export markets. At the board's request, the institute's technology staff visit customers, provide on-site technical assistance to food processors, and design training programs relevant to the customer's needs.

The Grain Transportation Agency

The Grain Transportation Agency is a federal government unit that ensures that grain from western prairie provinces is moved efficiently and reliably to domestic markets and to major ports for export. Canada's grain fields in the prairie provinces are the farthest from both the Atlantic and the Pacific oceans in the world. From the center of the main producing region of Canada, grain requires transportation over long distances by rail approximately 1,000 miles west to ports in Vancouver, Prince Rupert, or Churchill, or about 560 miles east to the Great Lakes port at Thunder Bay.

The Grain Transportation Agency acts as an impartial coordinator for the entire grain-handling and transportation system and ensures the reliable movement of grain from the prairie provinces to domestic and foreign markets. The Agency coordinates the movement of grain across approximately 18,600 miles of rail lines to four port destinations and to domestic consumers. On a weekly basis the agency allocates grain cars, including 13,000 rail cars owned by the federal government, for the movement of board and nonboard grains. Cars allocated for carrying nonboard grains are further distributed by the Agency to various handling and shipping companies based on an analysis of supply positions and sales

commitments of each grain company. After the initial allocation of cars is made to the board, the Agency does not further supervise board grain movements.

The Canadian International Development Agency

Food aid accounts for 12-13 percent of Canada's assistance to developing nations. As shown in table IV.1, grain represents approximately 93 percent of Canada's total food aid in tonnage.

Table IV.1: Commodity Composition of Canadian Food Aid, 1989-1991

Commodity	Crop year 1989-90 tonnage	Crop year 1990-91 tonnage[a]
Wheat[b]	701,888	1,015,081
Wheat flour	108,758	115,847
Other grains[c]	38,904	16,581
Total grains	849,551	1,147,508
Nongrain	60,255	87,633
Total food aid	**909,806**	**1,235,141**

[a]1990-1991 figures are estimates.

[b]Includes bagged and bulk wheat.

[c]Includes corn and maize.

Source: Canadian International Development Agency.

In crop year 1990-91, the Agency delivered an estimated 1.1 million metric tons of grain as food aid, of which over 1 million metric tons were purchased from the board. This activity makes the Agency one of the largest customers of the board.

The Agency purchases grain from the board at the board's quoted rate and takes deliveries of any grade of grain available at the time of the purchase. Agency officials told us that it strictly adheres to United Nations food aid conventions for disposal of surplus commercial grain—the grain is not to be used for market development purposes.

The Export Development Corporation

The Export Development Corporation is a crown corporation whose purpose is to facilitate and develop Canada's export trade, including agricultural commodities. As Canada's official export credit agency, it is responsible for providing export credit insurance, loans, guarantees, and other financial services. The corporation's services help to reduce financial risks associated with export sales and to promote Canadian exports by providing insurance to Canadian exporters. Corporation insurance normally covers 90 percent of the commercial and political risks involving insolvency, default, repudiation, and cancellation of a contract by the buyer. The corporation also issues guarantees to banks that make export loans or issue performance bid securities. The corporation generally provides export financing (e.g., loans, lines of credit, and notes) for up to 85 percent of the contract value at both fixed and variable rates of interest.

In 1990 the corporation provided over 1.4 billion Canadian dollars in export financing to 28 countries and issued almost 5 billion Canadian dollars worth of export credit insurance covering 129 countries. Financing of the export of wheat and barley is a relatively minor function of the mandate of the corporation, in part because nearly all credit sales are handled through the wheat board's credit sales program. The corporation has increasingly become an integral part of the Canadian export system and has shown a steady growth of its facilities and demand for its services.

Accredited Exporters

Although the board is the sole marketing authority for the export of grain from Canada, nearly 20 percent of its grain exports are handled through private companies (e.g., XCAN, Cargill, and Continental Grain) that are accredited by the board. The requirements for accreditation are financial stability; ability to arrange for freight, insurance, and other logistics of the trade; and registration by and license from the Canadian Grain Commission. The advantages offered by these exporters include their worldwide contacts and market information, their ability to combine board and nonboard grains to satisfy customer needs, their willingness to sell in smaller units than the board, their ability to store grain at major ports, their willingness to cover the costs of freight and insurance on deliveries to export destinations, and, on occasion, their ability to combine grains from other exporting nations to meet customers' requirements.

Primary Elevator Operators

Canada's primary elevators for handling and storage of grains are operated by large and diversified provincial cooperatives known as "provincial pools" (e.g., Manitoba, Alberta, Saskatchewan). The provincial pools act as agents of the Canadian Wheat Board and purchase and receive delivery of grain directly from producers on behalf of the board.

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