

**State Trading in International
Agricultural Markets: Institutional
Dimensions and Select Cases**

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*International
Policy
Council
on
Agriculture
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December 1991

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PREFACE

The International Policy Council on Agriculture and Trade (IPC) was established in 1987 to examine global agricultural issues and to develop realistic and feasible policy prescriptions. Since its inception, the IPC has recognized the important role of state trading in international agricultural markets and, therefore, the need for greater study in this area. Accordingly, in January 1990, the IPC commenced a study on trading institutions in the United States, the European Community, Australia, Canada, Japan, and the Soviet Union. This paper, the result of the IPC study, examines state trading and its effect on world markets with a view towards developing recommendations on how to bring state trading under international trade law.

The report presents six case studies of state trading activities in the international wheat market and evaluates the implications for the grain markets of interventions by these national state trading entities. Furthermore, it draws linkages to the GATT and recommends possible approaches for improving the way state trading is handled in GATT talks and in dispute settlement procedures.

In-kind funding for the project was received from the Economic Research Service at the U.S. Department of Agriculture and from the Market Research Institute at the Ministry for Foreign Economic Relations and ExportKhleb, both in the CIS.

The authors wish to express their appreciation for suggestions received from the EC Commission and for helpful critiques by the Japanese Food Agency and the Japan International Agricultural Council. Finally, the authors and the IPC acknowledge with gratitude the substantive and financial contributions of the Australian and Canadian Wheat Boards.

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FOREWORD

Lord Plumb of Coleshill

As we emerge from the détente of the Cold War, one legacy that is slow to disappear is the meaning of language which developed during that period. For many, the words "state trading" have an immediate connotation - all that is perceived worst about centrally planned economies - governments taking ownership of and control over the marketing of production often with less success than the market. However, if we step back, the term "state trading" covers a multitude of situations in which most governments - from the first, second and third worlds - intervene, both positively and negatively, to influence trade.

Gaining a greater understanding of the world is always the precursor to taking actions to improve the circumstances in which we live. Our ever increasing global interdependence creates an imperative for an open and free world trading system, especially for food, man's most basic need. More than a hundred years of agricultural trade conflicts around the world have led countries to gradually improve their appreciation and understanding of the circumstances and trading practices of their partners. Yet, it is only with the complexities of twentieth century living and government intervention that the need to fully understand the internal dynamics of each individual country's production and trading systems has become imperative.

When more broadly defined as situations where governments materially effect the conditions of trade on a transaction by transaction basis, it is clear that state trading is pervasive; operating in both importing and exporting situations to achieve both internal and external national objectives. By using case studies to focus on the various government activities that can be classified as state trading, this study dispels many of the misconceptions that have previously surrounded the subject.

State trading arrangements are instituted for national reasons. Yet, because we operate in an interdependent world, their effects must also be measured against international standards. In addition to addressing whether current state trading entities have, on balance, positive impacts in the host country, it is necessary to measure both the positive and negative effects these institutions have on global markets.

In order to develop new rules and procedures to address the negative impacts of state trading - if we indeed accept that there are negative impacts - we must first understand the current and historical forces that have led to the present regimes. These forces are diverse, spanning such imperatives as: food security, nurturing internal industrial development, promoting sectoral incomes, price stabilization, and philosophical orthodoxy.

Often the mechanisms utilized in a particular country have been dictated by one overriding concern, for example, a central importing agency established for food security reasons or a marketing board established for income and price stabilization purposes. However, over time these institutions evolve as secondary and tertiary objectives come into play. Most state trading institutions evident today result from such multi-faceted dimensions, making change ever more complicated.

The international focus of policy discussions has recently centered on trading relations, especially where agriculture is concerned. Yet, little attention has been given explicitly to the role which state trading plays. This, I believe, has been one of the reasons for slow progress on agriculture in the Uruguay Round of GATT negotiations. Failure to recognize and directly address the role of institutions involved in state trading has hindered negotiators' ability to find mechanistic solutions for achieving the GATT's goal to increase the free flow of agricultural trade. The positive aspects of state trading have been taken for granted, while the negative features have only been dealt with indirectly.

In direct negotiating terms, state trading has largely remained outside the scope of GATT. However, if the Uruguay Round, which has included agriculture more fully than any previous negotiation, is concluded successfully, as now seems likely, the agreements reached will have profound implications for the operations of state trading entities around the world.

Therefore, this study comes at a good time - having focused in GATT on specific measures of protectionism - it will lay an important foundation for considering the future significance of state trading institutions and for the influence they have on levels of market protection in a post-Uruguay Round world. To turn commitments of percentage reductions in agricultural support and protection into reality will require that every country modify state trading operations. Furthermore, an increased understanding of the positive aspects of these institutions will aid policy makers in their quest to more fully integrate state trading bodies into the rules of GATT in future negotiations.

The International Policy Council on Agriculture and Trade (IPC) has played an important role in bringing reasonable arguments to the attention of policy makers striving to improve world agricultural trade. As we come hopefully to a successful conclusion of the Uruguay Round, I hope this study will focus attention on how to take political commitments forward in practical terms. If so, the hard work of the authors and the supporters of this study will have served the world agriculture community well.

CHAPTER 1: Introduction

INTRODUCTION

Vernon L. Sorenson

State trading is a pervasive component of international agricultural markets. Centrally planned economies practice it but so do many market economies. State trading in agricultural commodities has received scant attention in trade policy discussions even though there has been significant progress in bringing about a focus on agricultural issues in GATT negotiations.

State trading of agricultural products has a long historical foundation, but more directly is the product of institutions and conditions that evolved as an outgrowth of the depression years of the 1930s and the post World War II period. At the domestic level most countries reacted to income and poverty problems of agriculture in the 1930s by instituting a range of protective devices. Due to a fear of return to depressed agricultural conditions or because of food shortages, protective measures were broadened during the post World War II period. These domestic policies are at the heart of the conflict presently surrounding the political economy of agricultural trade.

At the international level a number of systemic changes have evolved during the post World War II period. These include: (1) an unprecedented expansion in world wide trade, (2) the formation of the European Community, (3) the emergence of OPEC, (4) the establishment by the LDCs of a policy focus through the UNCTAD, (5) a change in monetary policy to floating exchange rates, and (6) rapid growth in many countries during the 1970s, based in part on lending that in the 1980s gave way to reduced lending, heavy debt and slow growth.

The composite of these major economic and institutional changes along with emphasis on domestic responsibility of governments created a dynamic and often contentious post World War

II international economic 'order.' During the early post World War II period U.S. policy was the lever through which a high degree of trade liberalization was generated. The General Agreement on Tariffs and Trade (GATT) was formed and the U.S. led a period of unprecedented reduction in trade barriers for industrial products. GATT principles and U.S. leadership were firmly grounded in the classical economic model. GATT signatory countries accepted this model for industrial trade policy formation.

The situation in agriculture was quite different. In the 1930s when the U.S. initiated its reciprocal trade agreements program it also instituted agricultural protection. This in turn led to international conflict and insistence by the U.S. on GATT exceptions to protect domestic programs, especially the Section 22 waiver which continues to overhang trade negotiations. Other industrial countries with at least equal and probably greater agricultural protection cheerfully followed the notion of agricultural exceptions. Widespread agricultural protectionism has continued to the present from its depression and early postwar base.

The negotiating format for agriculture in the GATT has been limited and different from industrial negotiations. Agriculture was not included in the first four Rounds of GATT negotiations and was incorporated only in a very limited way in the Dillon (5th) Round. In the Kennedy Round an effort was made to include agriculture but with no major achievements. The agricultural negotiations were almost exclusively a confrontation between the United States and the European Community based on U.S. efforts to mitigate protectionism that had evolved in the common agricultural policy. This negotiation lasted five years but virtually all of this time was

spent sparring over how agricultural negotiations should be undertaken with only very brief substantive negotiations at the end.

The Tokyo Round was the first where agriculture was significantly included in the general multilateral framework. Four dimensions of negotiations were involved: (1) Bargaining for reduction in trade barriers, (2) Bargaining on codes, (3) Negotiations on world wide commodity arrangements and, (4) Negotiations on special and differential treatment (S & D) for LDCs. While some progress, or at least change, occurred in each of these areas; real accomplishments measured by almost any standard were limited.

The Uruguay Round cast trade negotiations in a broader scope than any previous Round. These negotiations included traditional commodity trade policy issues but also trade in services, international investment, capital investment, intellectual property rights, and other dimensions. A major effort was undertaken to resolve agricultural issues. An initial bold initiative proposed for agriculture by the U.S. -- namely to eliminate all agricultural subsidies and barriers that affect trade -- was abandoned, but was followed by efforts to achieve more limited liberalization goals for trade in agricultural products.

Despite the ongoing and broadened search for trade liberalization, one aspect of international policy has received little attention; namely state trading. It has not been included significantly either for agriculture or industrial sectors in 7 prior negotiating Rounds nor has it been an important part of the Uruguay Round. This is understandable for industrial trade inasmuch as state intervention is limited where large multinational companies compete with differentiated products. Only centrally planned economies are relevant state traders in these sectors and for the most part they have not participated heavily in international trade or in the GATT.

However, when attention is turned to agriculture and other raw materials (e.g. petroleum, metals) the picture changes. Various forms of state controlled trading exist in many countries. This includes not only countries with state directed economies but also industrialized western economies and developing countries. These latter two groups account for a far larger portion of international trade under state trading arrangements than do socialist countries. Further, as progress is made in reducing other forms of trade intervention by market economies, intervention through state trading likely will increase unless restrained through negotiations and agreement in the GATT. The text of the GATT addresses this issue by stating that State trading entities should behave like private trading enterprises (Article XVII). This is unlikely to occur since state trading exists in large part to achieve market policy objectives that would not obtain if the market were left totally in the hands of private traders.

This publication addresses the question of state trading first by discussing the economic and institutional dimensions of state trading (Chapter 2). This chapter presents a definition of state trading, elaborates on the economic and institutional parameters and variables that motivate governments to engage in state trading, and defines how state trading operations are carried out. This conceptual chapter is followed in Chapters 3 through 8 by six case studies of state trading activities in international wheat markets. The cases included are: (1) Australia, (2) Canada, (3) the European Economic Community, (4) Japan, (5) the Soviet Union, and (6) the United States. Chapter 9 presents a brief summary of the study and seeks to present and evaluate the implications of state trading by these entities. It also discusses linkages to the GATT and possible approaches to improving the basis for dealing with state trading in GATT negotiations and in dispute settlement procedures.

CHAPTER 2: The Economic and Institutional Dimensions of State Trading

THE ECONOMIC AND INSTITUTIONAL DIMENSIONS OF STATE TRADING

Vernon L. Sorenson

INTRODUCTION

A conceptual framework for evaluating state trading needs to deal with its impact on commodity markets and the broader international trade order. A clear definition of state trading, the mechanics of state trading, the objectives sought and how these relate to general trade policy and private trading are necessary ingredients in an analytical paradigm that seeks to arrive at policy prescriptions. This chapter provides such a paradigm by exploring the phenomena of state trading in food and agriculture by assessing four interrelated questions.

1. What is state trading?
2. Why does state trading exist?
3. How are trading results affected?
4. How is state trading implemented?

WHAT IS STATE TRADING?

A clear and unambiguous definition of state trading is somewhat illusive. As reported by Lloyd [1] state trading has been defined variously as: state conduct of foreign trade (Hazard, 1959), the practice of some governments of monopolizing foreign trade in certain commodities (Baldwin, 1970), an enterprise which is either wholly or partly owned by the state (Ghai, 1973). Each of these definitions emphasizes the degree of government control either directly or through a controlling organization that can specify prices and quantities and other terms of sale and purchase in the international market.

An alternative labeled as the functionalist approach to state trading emphasizes the objective sought in distinguishing state trading from normal private trade. This approach asserts that state trading exists when state, in contradistinction to private, interests are primarily being pursued. The kinds of objectives pursued may vary widely among countries and include such things as protection of domestic producers, improvement of terms of trade, raising revenue for the state, promotion of domestic price stability, health and national security, and others. This leads to a definition by Lloyd [1] that state trading occurs when there exists a trading organization for which the prices and/or quantities of international transactions in commodities are determined as an instrument in the pursuit of the objectives of government policies. This definition focuses on government control for public policy objectives rather than on the existence of a particular form of organization or institution.

Of particular interest is the implied definition of state trading incorporated into the basic instruments of the General Agreement on Tariffs and Trade (GATT). Paragraph 1a of article 17 of the GATT entitled "State Trading Enterprises" reads as follows:

Each contracting party undertakes that if it establishes or maintains a state enterprise, wherever located, or grants to any enterprise formally or in effect, exclusive or special privileges, such enterprise shall, in its purchase or sales involving either imports or exports, act in a manner consistent with the general principles of non discriminatory treatment prescribed in this agreement for governmental measures

affecting imports or exports by private traders [2].

Subpart b of this first paragraph goes on to say that such enterprises shall, having due regard to the other provisions of this agreement, make any such purchases or sales solely in accordance with commercial considerations, including price, quality, availability, marketability, transportation and other conditions of purchase or sale, and shall afford the enterprises of the other contracting parties adequate opportunity, in accordance with customary business practices, to compete for participation in such purchases or sales.

Paragraph 2, 3 and 4 of article 17 deal with purchases for direct government use, negotiations to limit obstacles to trade created by state trading organizations and notification of the products which are imported or exported by enterprises of the kind described in paragraph 1a.

This GATT statement has shortcomings in implementation [3]. First, given the variety of institutional patterns that exist, determining what is a state enterprise or what is adequate control to imply the fulfillment of government objectives is not well defined. State trading can be directly implemented by government agencies or it can be left to parastatal organizations or it can be in the hands of cooperatives as is the case in Scandinavian countries. The link between trading organizations and government is unambiguous in the case of socialist countries where state control exists for virtually all production and trading activities and in other countries where complete monopoly control of border transactions is vested in a single government organization. A second limitation exists in determining what is discriminatory and what is non-discriminatory treatment in operating practices. Finally, there is the implication in article 17 that state trading organizations should operate consistent with government

measures affecting imports or exports by private traders. This is anomalous since state trading activities often are designed to fulfill objectives that are at variance with the results that would be obtained through private trading organizations.

For purposes of evaluating state trading in agricultural markets another relevant concept proposed by Kostecki is that state trading occurs when a government or a government backed agency controls the essential terms (including prices or quantities) on which exports and imports take place [4]. This definition focuses on government's impact on specific transactions rather than on the creation of specialized institutions or the fulfillment of specific goals, although normally government's impact on transactions will reflect the attainment of a policy goal rather than firm profit maximization.

In this study we recognize that both market control and the impact that government exercises over individual transactions are relevant and conclude that state trading encompasses trade undertaken directly by government or trade where transactions are directly influenced by government or an agency operating on behalf of government.

State trading therefore exists when government, an agency of government or an institution granted exclusive right by government controls trade or materially effects the conditions of trade on a transaction by transaction basis. This is distinct from trade conducted by private enterprise without direct involvement by government. Government intervention that does not represent state trading includes the use of tariffs, quotas, phyto-sanitary regulations and other traditional rules under which private trade occurs.

With this distinction, what then falls into the category of state trading in international wheat markets? Trade by government chartered

marketing boards with trading monopolies represent state trading, though the nature of the operational links to government may vary among entities. But the definition also includes trading undertaken through the export tender system in the European Community, all trading undertaken at the direction of the Japanese Food Agency and by Exportkhleb in the USSR, as well as, exports from the United States through PL 480, the Export Enhancement Program, Export Credit Guarantee Programs (GSM-102, GSM-103), or other subsidy programs where decisions are made on a case by case basis whether to export more or less, whether to influence price or in other ways to affect the terms of sale.

In this framework state trading of agricultural products is widespread indeed and encompasses direct trading by government agencies, trading by organizations allotted exclusive or special privileges by government and trading where transactions are carried out by private trade but with terms of sale or purchase directly influenced by government.

WHY DOES STATE TRADING EXIST?

The present institutions and dynamics involved in agricultural trade in general are an outgrowth of policies designed to serve national interests. These policies, in turn, have been influenced both by philosophical beliefs and the economic and political realities faced by individual nations. At least six different contexts can be distinguished that have influenced institutional patterns for state trading as they exist today.

Context for State Trading

1. Centrally Planned Economies: these economies represent the most clear case of state trading. This is based on their philosophical and political orientation. Most production and commerce both internally and

externally is handled by state directed institutions.

2. Less Developed Countries: these countries are a mixture of private and quasi-public or parastatal institutions but with heavy reliance on parastatal organization for national level internal markets and for external trade, both exporting and importing. The existence of these parastatal organizations often reflects the fact that there is neither adequate capital nor management and organizational capacity in the private sector to develop large scale market institutions. Further, there has been a general reluctance in many countries to permit outside multinational private firms to become heavily involved in specific markets. In many cases these institutions, particularly those that deal in external trade, were established by colonial powers to serve as exporters of raw materials and importers of processed and manufactured products from the controlling country. Many have been perpetuated and used in a similar way under domestic political control.

3. Canada, Australia, New Zealand and South Africa: this group of countries represents developed economies where marketing boards have proliferated largely in the agricultural sector. In some cases these were developed during the 1930s as a part of national policy to alleviate distressed conditions in agriculture. Their present form may reflect the fact that each of these countries is a significant exporter of agricultural products. Marketing boards were developed to overcome market failure and/or as a vehicle to expand and stabilize export sales of agricultural products.

4. Japan: the Japanese system is unique and reflects a long term concern with food security and the special place of rice in the Japanese food economy. The Japanese Food Agency is concerned both with maintaining protection for agriculture and not permitting consumption patterns to become excessively westernized

based on livestock products and on wheat as a principle food grain. Food security is embedded both in the concepts of protecting agriculture, particularly rice production, and in maintaining a diet centered around rice with fish as a major source of protein.

5. West Europe: west European countries historically evolved with considerable diversity in the form and purpose of market institutions [5]. The Scandinavian countries, for example, are dominated by cooperatives for both domestic marketing and international trade in agricultural commodities. The United Kingdom, while basically a free market economy and a leader in the search for free trade during much of the nineteenth century and early twentieth century, has established a number of marketing boards for agricultural products. Many European countries, because of direct links to colonies, developed parastatal institutions and in some cases government managed trading to handle these linkages. In addition, government control of tobacco, coffee and some other products was developed as a means of enhancing government revenues and controlling consumption patterns. West Europe presently is dominated by the common agricultural policy and, as we have asserted above, this contains a significant element of state trading. The tender system of exports creates transactions where prices and quantities are arranged through the Commission of The European Community.

6. The United States: direct government involvement in international transactions was slower to develop in the United States than in most other nations but gradually has been built into farm policy beginning as early as section 32 of the agricultural act of 1935. This act permitted direct government intervention to purchase agricultural products deemed to be in surplus and in turn to dispose of them in domestic or international markets. This was later followed by Public Law 480 in 1954 which established the basis for food assistance

programs with transactions initiated and arranged by government agencies. Since the early 1970s state intervention has increased. This has been combined with a general subsidy program where farmers who participate in farm programs receive a target price well above the minimum loan rate at which farm product prices are supported. This component of the program probably cannot be classified as state trading but simply specifies a set of rules within which private traders operate. On the other hand, sales under the Export Enhancement Program and those which are assisted by government credit or by credit guarantees to private institutions clearly represent transactions where both price and quantity are directly affected by government action.

Objectives of State Trading

Objectives can vary significantly among countries. McCalla and Schmitz suggest that there are at least four plausible reasons why nations engage in state trading in grains. First, most developed nations pursue domestic agricultural prices and income policies that involve price setting or intervention and often supply management. Domestic objectives generally relate to a policy aimed at improving income, achieving greater stability and more rapid growth in the client industry, and improved overall market performance. These policies require elements which regulate the quantities and prices of traded goods so that the international market does not undermine domestic objectives. Second, an increasing number of developing and centrally planned economies operate extensive subsidized urban food distribution programs where retail prices are significantly below producer prices or world prices, or both. State trading is again one means available to prevent events in the international market from disrupting domestic programs. Third, the form of economic organization in centrally planned economies may be such that state trading is the only

compatible form of international interface. Fourth, nations may seek to manage trade for foreign exchange reasons and/or to allow intercommodity and intersectoral tradeoffs in commercial policies [6].

Though these objectives probably cover the bulk of state trading in agricultural commodities a number of points could be added. State trading can be used to discriminate among countries and commodities both in export and import transactions. It can seek to improve terms of trade and foreign exchange flows by affecting prices and/or quantities traded. Meade suggests that the control of volume can be a particularly relevant component of state trading [7]. State trading can be used to control consumption, particularly of specific items such as tobacco and alcoholic products. It can also be used as a part of national defense through government purchases for stocking and maintaining reserves. This has been significant for the United States, particularly in certain metals and to some extent in petroleum products.

There is also an operational component that leads toward state controlled trading rather than relying on traditional restrictive measures such as tariff, quota and subsidy rules. State trading provides greater flexibility in making decisions both on prices and quantities and permits direct government impact on each. It is also far less transparent than traditional trade policy instruments. Imports, for example, can be restricted through a state trading monopoly simply by refusing to enter into transactions.

In a marketing context state trading can serve two important ends. One of these is to overcome market failure. This may include structurally induced deficiencies such as price uncertainty. Price pooling can assure that producers receive a price for their product that reflects the average market value (adjusted for storage cost) over the crop year. This kind of market control along with improved

information, contribute to market risk management. Second, a state trading agency, with exclusive marketing powers, can control stocks and enter into long term agreements with buyers or sellers. This kind of market stabilization has the potential to reduce handling, storage and transportation costs in some circumstances.

If the definition set forth above is accepted it is apparent that state trading is widespread in agricultural products and in certain other items, particularly petroleum and raw metals. It occurs through the grant of exclusive trading rights but with operating criteria and objectives specified by government, through maintenance by the state of control of transactions and through periodic intervention by government to specify the conditions for transactions that are otherwise handled through private institutions.

HOW ARE TRADING RESULTS AFFECTED?

The effect of state trading on markets depends on the objectives being sought by governments, the scope of control exercised by governments, and the degree of its market power. An initial distinction needs to be made between the large country case and the small country case. In general, small countries can affect only internal markets whereas large countries have at least the potential to affect international markets. Within these two categories governments can institute complete (monopoly) control over domestic and international transactions, they can establish government trading to function only with respect to border transactions, or they can institute intermittent intervention in transactions.

A Structure and Action-Impact Taxonomy

Table 1 is an effort to classify major forms of government control on the basis of the kinds of actions and market impacts that can be

generated. These structural cases are assumed to be pure cases in order to fill each cell with a yes or no with as little ambiguity as possible. Various "shades" of each of these cases exists in actual trading relationships. Further, the distinction between large and small country is not measured in terms of population, GNP, or other standard measures but rather in terms of importance in any given international commodity market. The basic question is whether for a given commodity the country has potential to significantly affect world price. Japan, for example, probably represents the large country case for rice, wheat, and beef but a small country case for oranges. With this distinction only a limited number of large country cases exist. Some of the more important ones are:

- (1) U.S.S.R.: All grains, most livestock products, sugar,
- (2) E.C.: Food grains, soybeans, dairy, livestock products, wine, food oils, sugar, (probably others).
- (3) U.S.: All grains, soybeans, dairy, livestock products, cotton, tobacco, sugar, peanuts, (probably others).
- (4) Japan: Rice, wheat, corn, beef.
- (5) Canada: Wheat.
- (6) Australia: Wheat, wool, sugar, some livestock products.
- (7) Brazil: Soybeans, coffee.
- (8) Cuba: Sugar.

On a worldwide basis the largest number of cases of state trading probably fall into the small country category. The largest volume of commodities handled exists in large country cases.

As shown in Table 1, only for the large country case with complete government control is yes appropriate for all row cells. This is distinguished from the small country case with complete government control only in that small countries do not have the capacity to affect world price. In both cases, however, from the viewpoint of the instituting nation it can replicate all possible domestic market outcomes, ranging from complete monopoly exploitation to simulating operation in a competitive market. Complete state trading also can produce effects equivalent to all traditional trade policy instruments including quotas, ad valorem tariffs, fixed rate tariffs, variable levies, phyto-sanitary regulations, or any other existing form of government intervention. State trading monopolies theoretically can operate to simulate optimum tariffs, optimum subsidies, and optimum export tax programs. Thus, both as exporters or as importers they have great flexibility in how they can fulfill the particular objectives being sought.

Five columns in Table 1 are exclusively yes. Both in the large and the small country case and with each type of state trading, all countries can affect the quantity traded, either for export or import. All can affect domestic price through trading action, all can differentiate among (target) external markets, that is, provide lower prices, credit subsidies, and so forth on a selective country basis. All can develop selective purchasing strategies to take advantage of market conditions (for example, the Russian grain purchases of the early 1970s), and all can affect the rate of stock accumulation or liquidation. There are differences in the degree to which each of these actions can be implemented depending upon the total volume of imports or exports relevant to a given country, the amount of government financing available, and the demand and supply elasticities for the commodities being traded. One important distinction needs to be made in the column

labeled "Affecting Domestic Price." While all cases are yes, in order to effect domestic price and differentiate domestic from international markets as a discriminating monopolist, government control both in domestic and international markets is required. The yes for all other cases in this column reflects the fact that the two lesser forms of control indicated in Table 1 can affect domestic price through variations in quantities imported or quantities exported. In the case of intermittent action, even this is questionable unless other traditional policy instruments supplement the state trading actions.

The most important distinguishing features among the structural alternatives is that only in the large country case can state trading actions by individual countries affect world price. Additionally, as indicated above, domestic and international markets can be effectively differentiated to exploit elasticities only in the case where complete government control of both domestic and international trading exists.

Some Theoretical Insights

It is apparent from the preceding discussion that the diversity of actions that can be taken through state trading mechanisms is great. The real question is what do state trading institutions actually do and is there any kind of conceptual guideline that can be used to evaluate their actions? An initial perception is that any conceptual framework using static economic analysis has limited validity in evaluating state trading. Two such illustrations, however, are worth presenting. One adapted from McCalla and Schmitz is shown in Figure 1 [6]. This Figure illustrates excess supply and demand curves in a two country, single commodity trading case. D is the foreign demand schedule of the importing country, and S is the foreign supply schedule of the exporting country, assuming that normal marketing costs are included in S .

In a perfectly competitive market the equilibrium quantity traded and price is at the point where the demand curve (D) and the supply curve (S) intersect. The free trade price, thus, is P^* and OQ^* of the product is traded. If a marketing board seeks to maximize returns to producers this will occur at the point where the supply curve (S) intersects with the marginal revenue curve (MR). Price will be at the point on the demand curve directly above the intersection of the S and MR curves. The quantity traded is Q^m at a price P^m . With an inelastic demand, returns to producers will exceed returns from a perfectly competitive market if all [or any part] of the additional value of sales is passed on to producers.

The outcome with a private monopsonist buyer with a sales monopoly is also illustrated in Figure 1. The private trader will equate the marginal outlay curve (MO) with the marginal revenue curve (MR) to maximize firm profits. The quantity traded in this case will be Q_c , the price to buyers will be P^c , and the price to producers in the exporting country will be P^o . Since it is assumed that marketing costs are incorporated into the supply curve (S) the difference between P^c and P^o is the profit to the monopolist per unit of sales.

In a static theoretical analysis of this kind the difference in market outcome is clear. The largest quantity traded and lowest consumer price occur in a competitive market. The marketing board that seeks to maximize per unit returns to producers will increase price to importing buyers and, in turn increase prices to producers. The quantity traded is reduced. The private monopolist increases price to importing buyers, reduces price to producers and maximizes firm profits. As compared with the perfectly competitive case, the marketing board will redistribute income to producers and the private monopolist will redistribute income to the firm's stockholders.

Another, frame of reference is suggested in Figure 2. This figure, adapted from Kostecki [8], illustrates a possible solution where a state trading organization is able to function as a monopolist in the domestic market and to separate the domestic market from the foreign market. This model optimizes returns to domestic producers by maximizing returns from the home market. In this figure, D is the domestic demand curve and WW' the foreign demand curve. This reflects the small country case where the foreign demand curve is assumed to be perfectly elastic. Under free trade production is OB and domestic consumption is OA and the quantity AB is exported at the world market at price P_w . But if a trading agency has monopoly control and seeks to maximize returns from the domestic market it will change this solution by restricting sales and increasing price in the home market and by paying domestic producers the pooled average price from sales in the home and foreign markets.

If, for example, production is at quantity A' (the S curve crosses the domestic MR curve at point H), sales of this quantity will occur in the domestic market at price P_c . There will be no exports. If, on the other hand, the S curve is to the right of the quantity A' and the monopolist's maximum return price is maintained in the domestic market, some quantity will be exported at world price P_w . The price to producers will be a pooled value derived from sales in the domestic and foreign markets. With the demand and supply curves and the foreign demand price shown in Figure 2 the equilibrium simultaneous solution will be a pool price P_p with a domestic equilibrium where $MR = P_p$ at point H. Quantity A' will sell domestically at price P_c . Production will be at quantity B' where the supply curve S equates with the pooled price P_p . The quantity B' - A' will sell internationally at a price P_w .

If either the domestic supply curve or the domestic demand curve shifts these equilibrium

points will change. A leftward shift in the supply curve will raise domestic price and reduce the quantity exported by a greater amount than domestic use will decline. As a result the pool price will increase above the level P_p . An outward shift in the supply curve will increase exports and reduce pool prices along with a simultaneous movement to the right of the intersection of the MR and P_p curves. This will lower the domestic price and increase domestic use but with an inelastic demand, consumption will increase only modestly. Most of the increased output will be exported. If the supply curve continues its outward shift the pool price will get closer to the world price as a larger proportion of the crop sells at the world price P_w and as domestic price gradually declines along the domestic demand curve.

While these two general illustrations have some validity in raising questions about the operation of state trading, the real question is the empirical one of how in fact state trading operates under different circumstances and what objectives are being sought. Generally these are related to domestic policy goals. Second, they are often complemented by domestic programs which, in combination with state trading, create conditions suggested by at least the latter of these two theoretical illustrations.

Programs to separate domestic from international price exist in Japan and are a major phenomenon in the European Common Agricultural Policy. Australia, Canada and South Africa probably can be viewed as small country cases where state trading activities impact international market prices minimally if at all. The European Community, on the other hand, represents a large country situation where these operations have a significant affect on world market prices. When the U.S. reduces export prices through the Export Enhancement Program, subsidized credit or other means, this same phenomenon occurs. A significant

difference from the EC exists in that the basic source of transfer of income to grain farmers with U.S. domestic programs is through deficiency payments covered by taxpayers, not through higher domestic prices.

LDCs in general operate state trading for different purposes. Emphasis is on subsidized consumption by importers and taxing of producers by exporters. The consequence of these two actions is to expand the quantity of imports and to reduce the quantities of exports. Domestic production is reduced because of the disincentive effect on domestic producers. Consumption subsidies are motivated both by humanitarian and political considerations. Export taxes are motivated by the need to obtain government revenue to finance domestic government actions.

Socialist countries participate in trade based on an entirely different approach to economic policy. Allocation of production and resource use and to a large extent consumption are part of an overall economic plan. Neither internal markets nor participation in international trade reflects adjustment to optimal resource use nor the preferences of consumers based on incomes and prices. In this framework trade is only a distributional mechanism and plays no part as an automatic regulator [9]. Both imports and exports tend to be generated as a residual component of an overall plan. Most socialist countries appear to have minimized trade levels by using imports as a necessity only to fill gaps in domestic production and have generated exports only as necessary to generate the foreign exchange needed for essential imports.

The most important theoretical distinction, in the preceding illustrations, between actions taken through state trading and by private firms is that state trading is designed to fulfill objectives of a related clientele, namely the designated agricultural industry. Private firms seek to satisfy their own self interest. In the

simplified theoretical analysis in Figure 1 where the sole objective is to maximize returns to stockholders, private firms with market power will exploit both foreign buyers and domestic producers and consumers to maximize firm profit. This increases selling price, lowers buying price and reduces traded volume. Under optimal behavior a state institution with market power will maximize unit returns from foreign buyers but pay a maximum return to domestic clients or to governments. This also reduces traded volume. The lowest price to consumers and the largest traded volume occur under perfect competition. This pure conceptual illustration indicates the general direction of operation and consequences that will arise with each type of organization.

HOW IS STATE TRADING IMPLEMENTED?

The conclusions of these static conceptual models, while relevant, do not provide a complete basis for evaluating state trading operations. State trading operates in a variety of circumstances with variations in objectives and with differences in the constraints on achieving those objectives. Increased insight is needed on how, in fact, state trading operates under different circumstances. Kostecki suggests that state trading institutions can be classified into three broad categories according to the type of foreign trade function performed [4]. These are:

Trading agencies: These comprise a large variety of operational government departments, foreign trade enterprises, public production and trading enterprises, and statutory marketing boards and cooperatives operating in international markets. Government units are at one end of the spectrum. At the other end of the spectrum are organizations distinct from government but supported by government grant of authority. These include marketing boards and other trading organizations under

government direction or with government granted monopoly in the trade of agricultural products.

Regulatory agencies: These comprise a variety of regulatory state institutions specifically involved in international commodity trading. Governments often prefer to dictate the terms on which foreign trade transactions take place, or at least to influence, them leaving the execution of particular export and import deals to private traders. In this case, private traders act as agents of the government or of a government-backed entity and assume responsibility for the operational parts of trading. The activities of the U.S. Commodity Credit Corporation (CCC) and lending institutions operating through private traders fall in this category.

Mixed Agencies: In some instances it is difficult to classify state trading arrangements either as trading or regulatory. This occurs when the responsibility for executing foreign trade is shared by the agency in question and private traders. In the conduct of foreign trade the state and private units are closely interrelated and it is impossible to tell which is responsible for individual decisions. The Japanese system probably falls largely in this category.

Within this institutional framework a wide range of objectives and forms of direct government intervention in international trading transactions exists. These can be broken down into three broad categories:

1. Direct government control of, or intervention in transactions, including specification of prices, quantities and other terms of purchase and sale in domestic or international markets.

2. Control of border transactions by quasi-government or parastatal organizations with guidelines and directives provided by government and with operations designed to fulfill producer income or other policy objectives rather than the profit objective as in private exporting firms.

3. Systems for trade basically handled by private institutions but with state intervention to specify or influence terms of transactions sometimes on a regular basis and sometimes on a sporadic or occasional basis.

In each of these cases state trading at the international level is linked to domestic policies and programs. In less developed countries the linkage tends to reflect needs imbedded in economic development plans. In some cases, for example South Korea, significant internal agricultural support mechanisms are in place. In most LDCs, however, direct price support mechanisms for farmers are minimal.

The nature and extent of these linkages in western industrial countries vary but in some they have an impact on domestic production, price, and consumption and on price and quantities traded in world markets. It is essential to evaluate the forces that drive these programs and how state trading is operationally linked to domestic programs to arrive at policy prescriptions.

How the approach used by socialist countries in determining their participation in world markets will change or might be changed by restructuring their political systems and eventual participation in the GATT is difficult to say. In any event, with the increased involvement by these countries in world markets, trying to understand the forces and conditions that influence their international buying and selling activities is important.

Given the great diversity in economic and political conditions that affect agriculture in different countries, a considerable amount of empirical evaluation is needed to sort out how state trading is implemented under the widely different circumstances that exist. This is the purpose of the case studies presented in the six succeeding chapters.

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FIGURE 1: Marketing Boards and Private Traders

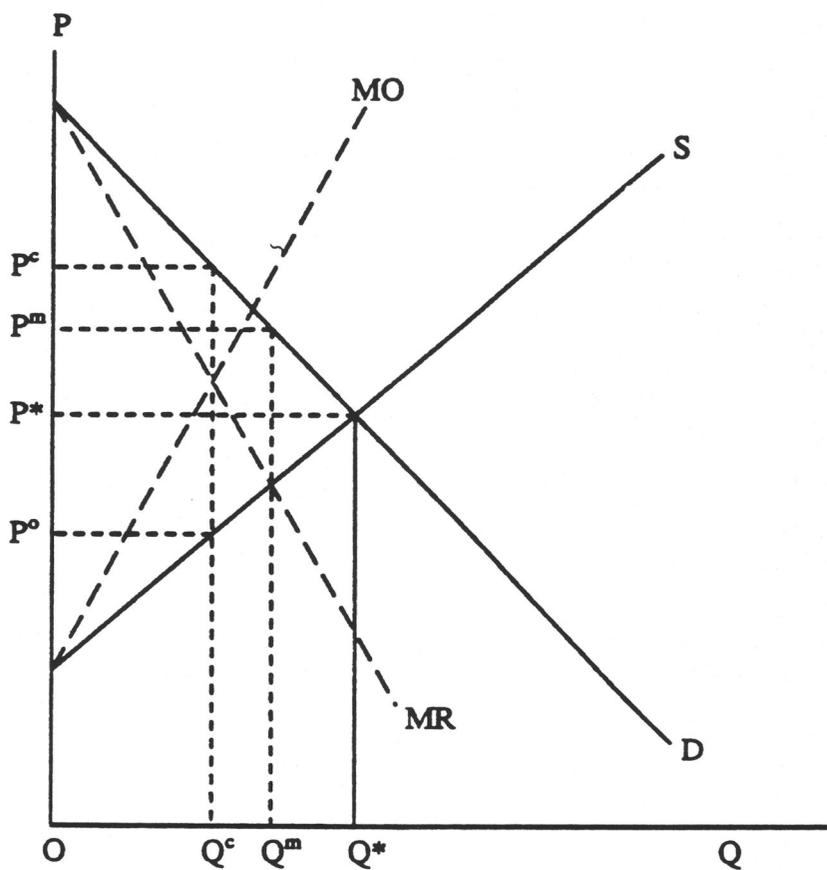


FIGURE 2: State Trading and Linking Scheme

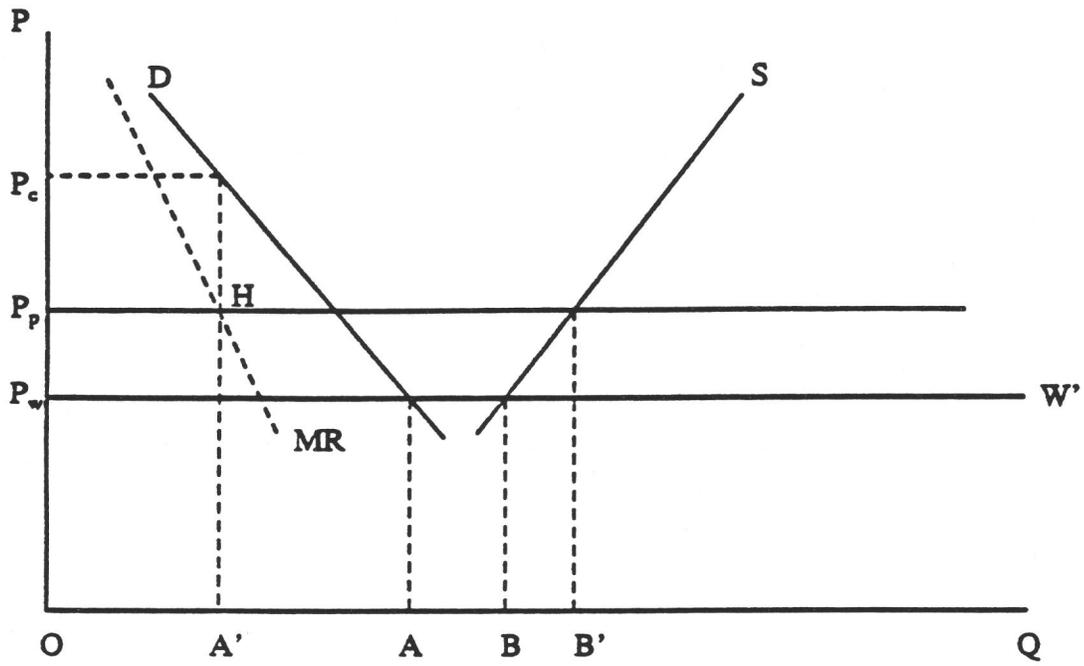


TABLE 1: A STRUCTURE AND POTENTIAL ACTION - IMPACT TAXONOMY FOR STATE TRADING

<u>Structure</u>	<u>Action -</u>				<u>Impact</u>				<u>Use</u>	<u>Affect Rate of Stock Accumulation or Liquidation</u>
	<u>Affect Quantity Trade</u>	<u>Affect World Price</u>	<u>Affect Domestic Price</u>	<u>Differentiate Domestic and Intn'l Markets</u>	<u>Target Sales or Purchases</u>	<u>Enter Long Term Sales or Purchases</u>	<u>Confidential Purchase or Sales Strategies</u>	<u>Confidential Purchase or Sales Strategies</u>		
Large Country										
Complete Control (domestic and intern'l)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Partial Control (intn'l transactions)	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
Intermittent Action	yes	yes	yes	no	yes	no	yes	yes	yes	yes
Small Country										
Complete Control (domestic and intern'l)	yes	no	yes	yes	yes	yes	yes	yes	yes	yes
Partial Control (intn'l transactions)	yes	no	yes	no	yes	yes	yes	yes	yes	yes
Intermittent Action	yes	no	yes	no	yes	no	yes	-	-	yes

CHAPTER 3: Australia

AUSTRALIA

Vernon L. Sorenson

INTRODUCTION

State trading of Australian agricultural products was first initiated in 1923 when the Sugar Board was established under the Queensland Sugar Acquisition Act. Since that time boards and corporations have been established to handle a number of agricultural products including: Wheat 1939, Honey 1962, Wool 1973, Dairy 1975, Meat 1977, Dried Fruits 1979, Wine and Brandy 1981 and Horticultural Products 1988. The purposes of these boards vary somewhat but all include the promoting and/or control of exports of the commodity and in some cases the regulation of domestic markets including promotion of consumption.

The Australian Wheat Board (AWB) was originally constituted in 1939 "to acquire, with certain exceptions, all wheat held in Australia and to arrange for its disposal in view of low world prices prevailing and the marketing and transport difficulties created by the wartime conditions" [1]. As often occurs with such institutions, the Wheat Board was not disbanded when these justifications no longer applied following World War II. The Board was reconstituted in 1948 "to establish it as the central marketing authority for wheat and to enable it to administer various wheat stabilization and marketing arrangements" [1]. These arrangements have continued through a succession of stabilization and marketing plans of 5 year duration until the present time. New legislation in 1989 modified the Board's role by deregulating the domestic market. It also expanded the Board's operating domain to include other grains produced in Australia and to wheat sourced in other countries. It's role as the single seller of Australian wheat in the international market continues and its relevance

as a state trading institution in international markets is unchanged.

SUPPLY-DEMAND AND POLICY CONTEXT FOR AWB OPERATIONS

The total volume of Australian agricultural production and the shares of total value of various agricultural products are subject to sharp year-to-year changes due to weather conditions or in some cases cyclical production patterns. Short term variation in crop production is more pronounced than for livestock products. Both grain and livestock prices and production are closely linked to world markets. Livestock is impacted by cyclical conditions in world markets and grain is subject to the vagaries caused by market intervention in both importing and competing exporting countries.

Supply and Demand for Wheat

Wheat occupies an important role in the Australian agricultural economy. This one commodity accounts for upwards of 60 percent of the total value of grain production and approximately 20 percent of total farm production [2]. Production is concentrated in the south and eastern part of the country along with a significant amount in western Australia. Area planted to wheat has increased from an average of 7.2 million hectares in the period 1962-1966 to 11.6 million hectares in 1983-1987. Most of this increase occurred during the 1970s. A peak of 12.9 million hectares was reached in 1983, and a significant decline has occurred in recent years. Production has also trended upwards over time to a peak of 22 million metric tons in 1983/84 and has declined since then. Both the acreage and production trends appear to reflect a response to world market conditions, as reflected

in export opportunities and prices available to the Australian industry.

In addition to these trends the most important characteristics of Australian wheat production is its year-to-year variability, including periodic sharp weather related changes as occurred in 1981, 1982 and 1983. Production in 1982 was about one-half of 1981 and 1983 production was 2.5 times that of 1982 (Table 1). This volatility creates problems in marketing and management of wheat sales, particularly the development of assured export outlets. Normally Australia does not accumulate sufficient stocks to offset these sharp variations in production (Table 1).

Domestic use of wheat absorbs a relatively small proportion of total production; less than 3 million metric tons in each of 5 recent years (Table 1). This represents 20 percent or less of total disappearance and means that Australia is dependent on world markets to absorb a larger proportion of its crop than most other major exporters. These production and disposal data indicate that due both to domestic production variance and conditions in world markets, Australian market organizations and policy must deal with volatility in both supplies and prices that derive from causes over which they have no control. These and other characteristics of the Australian industry need to be recognized in addressing AWB operations and related government policies.

Market Policy

The basic objective of Australian agricultural policies has been to develop efficient and competitive rural industries [2]. This has led to programs oriented to improvements in the structure of agriculture and to the development and adoption of effective production technology. Because of heavy dependence on export markets for some commodities, policies have been designed to overcome the adverse effects of sharp changes in world market conditions. Another major dimension has been to assist

producers affected by weather variation. At present the policies most relevant to AWB operation are those aimed at reducing the impact of production and market risk facing producers. In the past, policies aimed at support and stabilization of agricultural prices and incomes were also important, but current legislation gives the AWB little opportunity to support prices. Australia is a price taker in international markets and in the deregulated domestic market prices reflect the international market.

As previously indicated, policies under which the AWB has operated were initiated with the Wheat Industry Stabilization Act of 1948. This act applied for five years from 1948. It was succeeded by eight acts, each with a five year duration, plus the most recent, the Wheat Marketing Act of 1989, which does not have a predetermined life span. A summary of the gradual changes in policy that have occurred through this succession of legislative initiatives has been provided as follows: [3].

"The first four acts, covering the period from 1948 to 1968, provided for a price to be fixed for home consumption sales and a guaranteed price for a nominated tonnage for export. This guaranteed export price was determined by a formula based on growers' estimated production costs. A stabilization fund was also established with any export revenues received in excess of the guaranteed price being paid into this fund. Any shortfalls were met by drawings from the fund and/or Commonwealth government contributions if required. The general policies in this period were intended to stabilize prices and incomes.

Significant changes were introduced in the fifth act (1968-74). The guaranteed export price was divorced from direct costs of production and related to world trading conditions and the minimum price then established under the International Grains Agreement. Provision was made for year-to-year adjustment of the guaranteed export

price on the basis of certain defined cash costs. The tonnage to which the guaranteed export price applied was increased.

There were two main changes in the sixth act (1974-79). Firstly, the guaranteed export price was adjusted according to a formula intended to reflect changes in export prices over the subject and immediately preceding season. Secondly, the guaranteed export price was extended to cover the total quantity exported.

The stated objective of the seventh act (1979-84) was to provide government support to help the wheat industry 'overcome any short run downturn in producers' returns.' The various price stabilization and buffer fund arrangements were replaced by the concept of a Guaranteed Minimum Price (GMP) supported by direct Commonwealth underwriting. The GMP was calculated on the basis of anticipated net pool returns for the current and two previous seasons and was paid to growers on delivery of their wheat to the AWB. If actual returns exceeded the calculated GMP, the surplus was paid to growers in subsequent payments over the life of a particular pool provided they had delivered their wheat to the AWB. Any shortfall between actual pool returns and the GMP would be directly funded by the Commonwealth government.

In the eighth act (1984-89) the GMP concept was retained, although some changes were made to the mechanisms for its calculation. A permit system was introduced which allows wheat that is to be used for domestic stockfeed purposes to be traded directly between farmer producers and users. Adjustments were made to grower payment arrangements and domestic pricing arrangements were modified to reflect export prices more closely." [3].

Over this period (1948-89) a number of features have been retained in each of the acts. Except as noted above, the AWB was retained as the sole receiving and marketing organization for Australian wheat. Pooling of sales revenues and marketing costs on a seasonal basis have been central features of its operations. In the past, the AWB operation has been linked to administered pricing of wheat on the domestic market and contingent support by the commonwealth to reduce price risk. There also has been a continuous need for complimentary state legislation to support commonwealth provisions in each state.

Over time changes have been made to reduce commonwealth support for the industry and to increasingly reflect international market price signals to Australian producers. The 1989 act, introduced further legislative changes. As stated by the AWB: "It maintains the general evolutionary thrust of previous acts and also introduces some significant initiatives. In particular, the AWB's commercial flexibility has been enhanced, while increased accountability, introduced by amendment to the 1984 Act, has been retained." [3] The accountability reflected in the 1984 legislation relates to policy direction as opposed to accountability on specific transactions. Accountability is both to government and to Australian wheat producers through their representative organization the Grains Council of Australia.

"There have been further changes to Commonwealth contingency support arrangements, greater flexibility has been provided for pooling and payment arrangements, the domestic market has been deregulated and provision has been made for the establishment of a wheat industry fund (WIF)" [3]. This fund is financed by a levy on wheat sales and can be used either directly or to provide guarantees to support a range of purposes including:

- "AWB borrowing for commercial purposes,

- AWB borrowings for cash purchases on the domestic market,
- and AWB risk management activities, in particular to cover the uninsured portion of export credit sales" [3].

Two key policy adjustments are included in the 1989 legislation. The most important of these is deregulation of domestic markets. Two features of this change are paramount. First, the AWB lost its compulsory acquisition powers and second, domestic administered pricing arrangements were terminated. Growers now have the option of delivering domestic wheat to the AWB or any other available market institution for cash. The state of Queensland is excepted from these arrangements and its wheat for domestic use continues to be controlled by the State Wheat Board (an entity distinct from the AWB) and is marketed on its behalf by the AWB. Marketing and financing wheat with exclusive right of export will, however, continue to be the main thrust of AWB operations.

The 1989 legislation authorized the AWB to establish a separate trading organization to operate independent of the wheat pool. The AWB has established a separate trading division to operate the AWB's activities on the domestic market. The AWB also has the power to establish separate trading organizations which may handle separate and discreet functions, eg., a trading organization could be established to operate a commercial handling system on the AWB's behalf.

Another significant change introduced in 1989 allows marketing of other grains such as barley and sorghum by the AWB. It also is permitted to handle a variety of other products including peas, faba beans, oats, lentils, sunflower, sorghum, and chick peas.

THE AUSTRALIAN WHEAT BOARD

The Wheat Board was originally constituted to "purchase, sell and dispose of wheat and wheat products, and handle, and store and ship wheat." Its mandate was expanded in 1948 when state governments, the commonwealth, and industry agreed on the need both for "organized marketing and a wheat stabilization plan to provide security to the industry." While the specific role and operational procedure of the organization evolved somewhat over time its main thrust remains much as originally designed. Its objectives and functions have recently been summarized as follows.

Objectives of the AWB

The objectives of the AWB as defined by the 1989 legislation are:

"To maximize the net returns to Australian wheatgrowers who sell pool-return wheat to the AWB by securing, developing and maintaining markets for wheat and wheat products and by minimizing costs as far as is practicable; and by participating, in a commercial manner, in the market for grain and grain products, to provide Australian grain growers, and especially wheat growers, with a choice of marketing options.

These expanded objectives have three main implications. Firstly, the requirement to maximize net returns means the AWB must strive to minimize storage, handling and transport costs. Secondly, the AWB is required to act on behalf of grain growers generally, not just wheatgrowers. Thirdly, the AWB's conditional participation in markets for grain and grain products implies a much broader commercial charter covering other grains and potential downstream processing and value adding activities" [3].

Functions of the AWB

In broad terms, the main functions of the AWB are:

- "to export and to control the export and overseas marketing of Australian wheat;
- to promote, fund or undertake research into matters related to wheat marketing;
- to provide advice and make recommendations to the Minister with respect to matters relating to the marketing of wheat;
- to export and trade grain other than wheat to the extent that this promotes an objective of the AWB;
- to make arrangements for the growing of wheat and, with the Minister's approval, the growing of other grains;
- to export and trade in wheat products; and
- to export and trade in grain products to the extent that this promotes an objective of the AWB" [3].

The central activity of the Board is that related to the export marketing of wheat. "In carrying out this function the Board deals with bulk handling authorities (BHAs) in each state that receive, handle and store grain. These units are also responsible for sampling, inspection and quality maintenance while grain is in the domestic marketing system. An extensive storage and handling agreement exists between each individual BHA and the AWB" [4]. Wheat becomes the property of the AWB once it is received by the AWB into a storage facility. That which is sold to export is normally transferred to the foreign buyer on an f.o.b. basis.

Over time the Wheat Board has built a number of market linkages. In Appendix Table 7 these are classified into large markets (upwards of 1.5 million metric tons annual sales), intermediate markets (0.5 to 1.5 million metric tons annual sales) and smaller markets (less than 0.5 million metric tons annual sales). The percentage of annual shipments to each of these market categories fluctuates from year-to-year but no consistent trends are apparent. As growth in Australian exports occurred, the proportion shipped to each category remained relatively constant; 50 percent to larger markets, 25 percent to intermediate markets and 10 percent to smaller markets. In addition another 15 percent goes to very small and intermittent markets.

Annual variation in shipments related to size of the Australian crop appear to be broadly dispersed. For example, the short crop of 1983 resulted in reduced sales to most countries, though the greatest reductions in percentage terms appear to have been to China, the USSR and N. Yemen. If any generalization can be drawn from these data it is that intermediate markets appear to absorb somewhat less variation than other categories. Basically, however, the variation appears to arise country by country with no apparent consistent pattern.

The same general conclusion can be made concerning variations in Australian export unit values. A considerable amount of variation exists among countries but annual variation among countries is somewhat less in the intermediate market group, although this pattern seems not to be the case in 1987. As with volume, no stable pattern of difference among countries appears to exist.

Export operations are handled in a number of ways. As reported by the Australian Bureau of Agricultural and Resource Economics (ABARE): "The Board employs a number of selling strategies which include direct sale to governments, sale to government agents or marketing authorities, sale through grain trading

companies, and sale to the Commonwealth government so that the government can meet its food aid obligations. The Board sets price quotations for Australian wheat for export on each working day. These price quotes are set according to the commercial judgement of the Board, taking into consideration the world supply-demand situation as reflected in the prices offered by competing exporters, particularly the United States. Essentially, the Board bases its quoted price on that of competing U.S. wheat, and may adjust this price to allow for such factors as exchange rates and ocean freight rates. Since 1985 the presence on the market of increasingly significant quantities of subsidized wheat has had the result that often the published quote is not indicative of prices realized in many of Australia's markets" [5].

The AWB sells wheat to a number of customers on credit terms. Credit insurance is provided by the Export Finance Insurance Corporation (EFIC) for up to 80% of the vale of these sales. EFIC charges to AWB for the provision of export insurance. The AWB's risk management capacity has also been improved by recent clarification and expansion of facilities for hedging purposes. This enables the AWB to reduce the adverse impact of variations in commodity prices, exchange rates, interest rates and freight [3].

EVALUATION

Two major performance dimensions are relevant to evaluating the effect of the statutory monopolies established to handle Australian wheat marketing. These are: (1) whether such a system can over time maintain efficiency both in its functional-operational dimensions and in its pricing dimensions and (2) whether the system is capable of exercising economic power particularly in international markets.

Operational Efficiency

The question of operational efficiency has been evaluated by the ABARE as follows:

The current institutional arrangements governing wheat distribution have given rise to several efficiency problems. Inefficiencies in the wheat distribution system may occur due to the mixing of social (non-commercial) and efficiency goals, the inadequacy of incentives for good economic performance in the current institutional arrangements, and the fact that the organizations providing distributing services have a state rather than a national perspective. The ABARE proposed three basic options for changing the institutional arrangements to overcome these problems.

The first option was to remove non-commercial objectives and to improve incentives for efficiency in the existing statutory monopolies. Additional legislative amendments were proposed to eliminate conflict of interest on authority boards, to increase the accountability of the authorities and to improve coordination in the grain distribution system. It was concluded that competition would encourage increased efficiency; thus, the second option was to introduce competition to the existing statutory monopolies as well as making the changes included in the first option. The third option was to privatize the bulk handling authorities. In addition to the changes involved in the first two options[5].

The statement of these concerns and recommendations was followed by significant changes in the 1989 wheat marketing legislation, designed to improve incentives for efficiency and to improve coordination in the grain distribution system. Competition was introduced in the domestic market and growers were given the option of selling through the wheat board pool or as cash sales or selling to private traders and millers.

The second major change was to disconnect AWB operation from a minimum price guarantee. Government involvement in the future will be limited to providing a guarantee for loan funds to assure advanced payment that will represent a predetermined percentage of the aggregate estimated net pool return (AENPR) rate per ton. These loans are to be repaid from revenues generated by sales of pool wheat. If pool returns are insufficient to repay borrowings, the government will finance shortfalls to a predetermined percentage of the AENPR. These guarantee levels will decline over a 5 year period as follows [7]:

For the crop year beginning July

1989 -	90.0%
1990 -	87.5%
1991 -	85.0%
1992 -	82.5%
1993 -	80.0%

As yet, no provisions for government guarantee of pool borrowing exist beyond 1993.

This program is supplemented by the Wheat Industry Fund (WIF). This fund can be used to support borrowing for cash purchases of grain and other commercial activities and to help cover the uninsured portion of export credit sales. The WIF and a wheat research fund are financed by a 2.5 percent grower levy applied to the farm gate value of wheat sold.

Other changes have been implemented to increase competition in grain storage, handling and transportation. These changes free the AWB from using State authorities for these functions and permits the AWB and other handlers to choose the lowest cost, most efficient service provider.

Total changes in the 1989 legislation have opened the domestic market to competitive forces and virtually eliminated all elements of monopoly control previously enjoyed by the AWB.

Economic Power

The question of whether the Australian Wheat Board can increase returns through market power is of concern to the international community and is relevant to the GATT process.

Because of weather changes year-to-year, the proportion of Australian Wheat sold domestically and internationally vary widely (Tables 3 and 4). Australia's share of the world market from the mid sixties through 1987/88 is shown in Table 2. Australian production represents 3 to 4 percent of total output by major exporters. These figures do not indicate a broad based or continuing capacity for the AWB to exert monopolistic power in world markets. Further, the GMP program has not been supplemented by direct export subvention designed to capture a market or "shoot across anyone's bow." Nor has the GMP program been accompanied by government storage programs designed to control supplies available in international market. Thus it would not appear that the AWB can directly influence world market price.

On the other hand, the unit value data in Appendix Table 5 indicate that the AWB can effectively respond to available sales opportunities in world markets. The existence of these rather wide differences between high and low unit values does not necessarily imply the existence of market power. Quality differences, differences in sale conditions (for example, with or without credit) or differences in seasonal pattern of exports or other factors can influence relative prices among buyers.

While, as shown in Table 5, there are numerous variations in annual average unit value among countries, there are only small differences in aggregate average unit values among large, intermediate, smaller, and even very small and intermittent markets. The differences in unit values that exist among the different size classes of markets suggests that the AWB can be responsive in competing for markets. The unit

value differences do not appear to be related to differences in unit marketing costs in markets of different size or location.

SUMMARY AND CONCLUSIONS

The Australian export wheat marketing system continues to be centrally controlled through the AWB. A number of arguments have been put forward that this system can provide maximum benefit to the Australian wheat industry because a centralized seller:

- "could reduce marketing costs to growers by taking advantage of economies of size;
- has an advantage in selling to countries preferring to trade with government agencies and to those with single import trading organizations;
- could increase sales by contracting forward and by providing credit;
- could increase returns by using monopoly power in nearby markets;
- could coordinate the necessary measures to ensure the maintenance of Australian wheat quality and freedom from insect pests, as required by the 1952 International Plant Protection Convention and the Federal Export (Grains) Regulations; and
- could promote the longer term interests of the Australian wheat industry and undertake market development (whereas, it was argued, grain traders would be interested only in short term profit maximization)" [5].

Concern has been expressed about the efficiency of the overall domestic marketing system [5]. One concern relates to a possible lack of incentives for maintaining operational efficiency that can arise with the protection of a statutory market monopoly. Also some concern exists as to whether pooling both of revenues on

a national basis and costs on a state basis gives farmers in all areas the appropriate price signals for production of wheat versus other farm products. The national pool on output, in particular, can result in under or over production of wheat in different areas. Regional comparative advantage can become obscured. These concerns led to changes in 1989 that moved domestic markets to an open competitive system.

At the international level the AWB monopoly creates a potential to adapt selling efforts to shifting and divergent market characteristics around the world. The Board appears able to adapt its merchandising program to wide fluctuations in domestic supplies and to formulate marketing strategies that develop and maintain markets for Australian wheat in the face of shifts in overall demand and fluctuations among countries in import requirements. These capacities are designed to serve the core AWB objective of maximizing net returns to Australian wheat growers.

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**TABLE 1: Australia Wheat Supplies and Disappearance for Crop Years
1961/62 - 1987/88 (million metric tons)**

Year	Supply			Disappearance			End-of Year Carryover
	Beginning Stocks	Production	Total	Domestic	Exports	Total	
1965/66	0.7	7.1	7.7	2.5	4.8	7.3	0.5
1970/71	7.2	7.9	15.1	2.7	9.0	11.7	3.4
1975/76	1.7	12.0	13.6	2.7	8.2	11.0	2.7
1976/77	2.7	11.8	14.5	2.6	9.8	12.3	2.1
1977/78	2.1	9.4	11.5	2.6	8.1	10.7	0.8
1978/79	0.8	18.1	18.9	2.5	11.7	14.2	4.6
1979/80	4.6	16.2	20.8	3.4	13.2	16.6	4.3
1980/81	4.3	10.9	15.1	3.5	9.6	13.1	2.0
1981/82	2.0	16.3	18.4	2.4	11.0	13.4	4.9
1982/83	4.9	8.8	13.8	4.2	7.3	11.5	2.3
1983/84	2.3	22.0	24.3	2.6	14.2	16.7	7.6
1984/85	7.6	18.3	25.9	2.6	15.1	17.3	8.6
1985/86	8.6	16.6	25.1	2.9	16.1	17.9	7.3
1986/87	7.3	16.8	24.1	2.7	14.8	17.5	6.6
1987/88	4.0	13.0	17.0	2.8	11.0	13.8	3.2

1987/88 data is preliminary.

SOURCE: Wilson and Orr 1989. Data from World Wheat Statistics, various years, London for 1961/62 - 1985/86, 1986/87 - 1987/88 from IWC Market Report and FAS FG13-87, World Grain Situation Outlook.

TABLE 2: Market Shares of Total Wheat Exports by Major Exporters

Year	EC*	U.S.	Canada	Australia	Argentina
1965/66	8.9	37.7	23.9	9.2	12.7
1970/71	5.7	36.5	21.4	17.5	3.1
1975/76	11.6	47.4	18.2	12.2	4.7
1976/77	6.3	42.7	20.9	13.6	9.1
1977/78	6.2	43.5	22.0	15.3	3.7
1978/79	10.3	45.2	28.8	10.0	4.6
1979/80	12.0	42.6	17.4	17.9	5.5
1980/81	13.5	44.8	18.1	11.8	4.1
1981/82	13.9	49.0	17.7	11.3	4.3
1982/83	14.7	40.9	22.0	8.8	7.8
1983/84	14.9	38.2	21.1	11.6	9.6
1984/85	16.5	36.7	18.3	14.5	7.7
1985/86	17.2	28.9	20.2	18.5	7.2
1986/87	16.6	30.3	23.1	16.5	4.8
1987/88	16.7	34.8	21.9	13.6	5.2

* Six original member states to 1967/68, nine member states to 1980/81, ten member states to December 1985, thereafter 12 members.

SOURCE: Wilson and Orr 1989, data from World Wheat Statistics, various years, London. 1986/87 From FAS (FG-9-87).

TABLE 3: Australian Wheat Exports, by Destination (Quantity in metric tons)

Item	Years							
	1980	1981	1982	1983	1984	1985	1986	1987
Lrg. Mkts								
China	1,997,812	1,242,804	2,113,110	416,391	2,429,362	1,254,856	2,785,944	4,462,657
Egypt	1,748,890	1,728,480	2,062,586	1,093,308	2,269,638	2,357,761	2,116,879	2,102,254
Sov. Union	3,046,101	1,529,823	2,099,474	938,026	2,160,565	1,808,952	3,390,227	687,723
Total	6,772,803	4,501,107	6,275,170	2,447,725	6,859,565	5,421,569	8,293,050	7,252,634
% of Total	54.5	49.7	50.5	37.7	44.9	39.1	50.0	47.6
Intm. Mkts.								
Indonesia	623,003	453,697	360,968	416,575	395,885	502,416	686,359	695,261
Iran	799,473	600,506	942,891	656,036	2,011,792	1,210,853	1,373,741	2,262,661
Iraq	787,474	208,295	859,613	453,907	1,069,031	951,091	834,347	1,173,212
Japan	821,866	908,047	1,054,702	863,794	1,077,736	1,071,883	1,120,128	1,012,491
Total	3,031,816	2,170,545	3,218,174	2,390,312	4,554,444	3,736,243	4,014,574	5,143,625
% of Total	24.4	21.7	25.9	36.8	29.8	26.9	24.2	33.8
Sm. Mkts.								
Kuwait	261,942	586,391	254,111	181,283	196,911	170,508	116,474	132,545
Malaysia	337,846	277,513	234,922	237,421	274,297	266,396	372,598	415,624
Singapore	340,932	120,796	81,249	237,398	274,980	132,017	195,393	135,065
S. Yemen	122,459	120,188	144,131	106,094	257,078	219,774	197,657	148,549
N. Yemen	237,192	269,495	288,844	61,180	118,234	359,491	517,438	372,363
Total	1,300,371	1,374,383	1,003,257	823,376	1,121,500	1,148,186	1,399,560	1,204,146
% of Total	10.5	15.2	8.1	12.6	7.3	8.3	8.4	7.9
Sm & Int. Mkts.								
	1,313,187	1,004,500	1,908,790	834,805	2,744,998	3,542,693	2,868,518	1,619,183
% of Total	10.5	11.1	15.3	12.8	17.9	25.5	17.3	10.6
World Total	12,418,177	9,050,535	12,405,391	6,496,218	15,280,507	13,848,691	16,575,702	15,219,588

SOURCE: U.N. Trade Data System

TABLE 4: Australian Wheat Exports, by Destination (Value in 000 U.S. \$)

Item	Years							
	1980	1981	1982	1983	1984	1985	1986	1987
Lrg. Mkts								
China	322,276	241,603	329,280	59,747	368,517	168,233	302,892	356,231
Egypt	304,556	319,131	332,697	179,356	335,193	324,718	242,558	187,897
Sov. Union	589,210	288,056	350,273	163,258	323,708	227,299	399,954	61,432
Total	1,216,042	848,790	1,012,250	402,361	1,027,418	720,250	945,404	605,560
% of Total	55.0	50.1	50.2	37.7	45.1	38.9	49.4	42.5
Intm. Mkts.								
Indonesia	105,874	84,493	57,273	70,949	62,221	73,501	89,727	82,658
Iran	142,710	112,832	147,586	106,857	291,937	166,606	159,612	194,507
Iraq	141,253	38,149	142,954	77,429	165,372	138,089	103,121	129,599
Japan	144,321	169,260	169,100	140,105	168,276	149,723	140,221	119,823
Total	534,158	404,734	516,913	395,340	687,806	527,919	492,681	526,587
% of Total	24.2	23.8	25.9	37.0	30.2	28.5	25.7	36.9
Sm. Mkts.								
Kuwait	44,317	106,485	40,617	29,671	30,418	26,259	15,860	11,429
Malaysia	58,557	50,211	36,258	38,236	43,457	39,748	45,444	47,449
Singapore	52,327	21,478	13,307	39,497	41,524	15,669	22,476	13,866
S. Yemen	27,418	24,594	27,235	20,485	42,449	32,387	26,201	19,346
N. Yemen	43,210	50,418	45,122	8,917	16,836	50,048	57,303	39,774
Total	225,829	253,186	162,539	136,806	174,684	164,111	167,284	131,864
% of Total	10.2	14.9	8.1	12.8	7.6	8.8	8.7	9.2
Sm & Intm. Mkts.								
	232,243	188,386	305,285	133,389	387,375	439,041	308,397	161,639
% of Total	10.5	11.1	15.2	12.5	17.0	23.7	16.1	11.3
World Total	2,208,272	1,695,096	1,996,987	1,067,896	2,277,283	1,851,321	1,913,766	1,425,650

SOURCE: U.N. Trade Data System

TABLE 5: Australian Annual Average Wheat Unit Values by Destination (F.O.B. - U.S. \$/M.T.)

Item	Years							
	1980	1981	1982	1983	1984	1985	1986	1987
Lrg. Mkts								
China	161.31	194.40	155.82	143.48	151.69	134.06	108.72	79.82
Egypt	174.14	184.63	161.30	164.04	147.68	137.72	114.58	89.37
Sov. Union	193.43	188.29	166.83	174.04	149.82	125.65	117.97	89.32
Weighted Avg.	179.54	188.57	161.31	164.38	149.77	132.84	113.99	83.49
Intm. Mkts.								
Indonesia	169.94	186.23	158.66	170.31	157.17	146.29	130.72	118.88
Iran	178.50	187.89	156.81	162.88	145.11	137.59	116.19	85.93
Iraq	179.37	183.14	166.30	170.58	154.69	145.19	123.59	110.46
Japan	175.60	186.40	160.32	162.19	156.13	139.68	125.18	116.17
Weighted Avg.	176.18	186.46	160.62	165.39	151.36	141.29	122.72	102.37
Sm. Mkts.								
Kuwait	169.18	181.59	159.83	163.67	154.47	154.00	136.16	86.22
Malaysia	173.32	180.93	154.34	161.04	158.43	149.20	121.96	114.28
Singapore	153.48	177.80	164.55	166.37	151.00	118.68	115.02	102.66
S. Yemen	223.89	203.50	189.96	193.08	165.12	147.36	132.55	130.31
N. Yemen	184.87	187.08	156.21	145.75	142.39	139.22	110.74	106.81
Weighted Avg.	173.66	184.21	162.01	166.15	155.76	142.93	119.52	109.50
Sm & Int. Mkts.								
	176.85	187.54	159.93	159.78	141.12	123.92	107.51	99.82
World Total	177.82	187.29	160.97	164.30	149.03	133.68	115.45	93.67

SOURCE: Computed From U.N. Trade Data System

CHAPTER 4: Canada

ABBREVIATIONS

ASA	- Agricultural Stabilization Act
CGA	- Canada Grain Act
CGC	- Canadian Grain Commission
CIDA	- Canadian International Development Agency
CIGI	- Canadian International Grains Institute
CWB	- Canadian Wheat Board
CWBA	- Canadian Wheat Board Act
CUSTA	- Canada-U.S. Free Trade Agreement
GATT	- General Agreement on Tariffs and Trade
LTA	- Long Term Agreement
WGSA	- Western Grains Stabilization Act
WGTA	- Western Grains Transportation Act

CANADA

Courtney A. Harold, George E. Rossmiller

INTRODUCTION

State trading activity in Canada can be traced to the establishment of marketing boards for several agricultural commodities, among them the first Canadian Wheat Board (CWB) in 1919. The original CWB operated for one year and was replaced by voluntary grain pools in 1920. Producers who sold their grains through the pools accounted for approximately one-half of all prairie wheat sales by 1922. During this time several farm organizations formed, and called for reforms in the transporting, grading, and weighing of grains in the Prairie Provinces. The Winnipeg Grain Exchange, in operation since the 1880s, failed to resolve problems of this nature privately. Thus farm groups, with many different stands on the extent to which government should be involved, attempted to influence policy in various ways to address grain trade problems. Attaining greater stability in grain trade was one of the main goals of producers; to reduce large fluctuations in price and supply and to secure reasonable availability and price of services such as transportation, grain handling, and marketing.

Farmer dissatisfaction was at this stage hardly new. As early as 1900, prairie grain producers complained about "an inordinate spread between the prices they received at the elevators and the eventual selling prices on the Winnipeg Grain Exchange and on the Liverpool Exchange, which was then the principal world buying market" [22]. And when the voluntary grain marketing pools crashed with the onset of the Great Depression, the federal government intervened with a stabilization operation in 1931. This in

turn led to the unanimous passage of Bill 98 on July 5, 1935, establishing the Canadian Wheat Board (Canadian Wheat Board Act of 1935).

By the 1950s the CWB had become an integral part of Canada's agricultural system and an important player in world grain trade. The CWB is a particularly relevant state trading entity to examine within Canada because wheat is Canada's most important agricultural export. In the past two years Canada maintained about a 16 percent share of the world wheat market [28]. All export sales of Canadian wheat and barley from the CWB designated area (Manitoba, Saskatchewan, Alberta, Northern British Columbia), as well as domestic sales of wheat and barley for human consumption, are required by law to go through the CWB. The CWB must issue export licenses for grain (wheat and barley) produced outside of the CWB designated area.

AGRICULTURE IN CANADA AND THE IMPORTANCE OF GRAINS WITHIN AGRICULTURE

Canadian grain production is concentrated mainly in the three Prairie Provinces of Manitoba, Saskatchewan and Alberta. Ontario is also a major grain growing area in Canada, with the remaining supplies coming from the northeastern region of British Columbia. British Columbia is not as dependent on grain production as the other three prairie provinces. Much of its agricultural land and resources are devoted to fruit and vegetable production.

The agricultural sector in Canada accounted for 3.7 percent of Canada's total Gross Domestic

Product in 1987 and wheat was and continues to be the most traded agricultural commodity, accounting for 39 percent of all agricultural product exports in 1987 [23]. Cereals and cereal products made up 47.8 percent of all agricultural exports.¹ Total merchandise trade exports in Canada were US\$ 111.9 billion in 1988, and agricultural product exports constituted 7.9 percent of that (US\$ 8.88 billion) [15]. Approximately 70 percent of all Canada's agricultural production is priced on an international basis so there is little insulation to producers or processors from shocks on the international market [6, Coffin]. This international market uncertainty has led the Canadian government to allow mechanisms of direct market intervention in the agricultural sector; domestically in the form of supply management boards (Canadian Dairy Commission, Canadian Egg Marketing Agency, Canadian Chicken Marketing Agency, Canadian Turkey Marketing Agency), which set administered prices on domestic markets; and internationally in the form of marketing boards like the CWB, where Western grain producers sell largely to the world market where prices are not controlled. In addition there are indirect supply management and pricing policies in Canada to ensure producers receive the consistently highest prices possible.

Recent Trends in Grain Production

Area planted to wheat in the Western prairie has fluctuated in the last 25 years as shown in Figure 2, marking a slight upward trend.² Over the same period total land planted to grain increased by 22% (17.8 million hectares in 1965 to 22.9 million hectares in 1989). As Table 1 shows, total wheat yields in the Western Canadian Provinces also increased, from 1.54 mt/ha in 1965 to 1.78 mt/ha in 1989. Year-to-year wheat yields in the past decade have seen sharp fluctuations due to unstable weather conditions (Figure 3). Canadian wheat production was at its peak in 1986 with 31.4

million metric tons, an average yield of 2.18 mt/ha.

Domestic wheat use comprises a small proportion of total wheat produced and consumed, further reinforcing the importance of international markets to Canada's wheat industry (Figure 4). Based on USDA figures, 74.8 percent of all Canadian wheat sales were exported in 1987 (7.9 mmt domestic versus 23.5 mmt export). On the other hand, total coarse grain exports (mainly barley) show the opposite proportion. Canada exported only 20 percent of its coarse grains in the same year (5.2 mmt out of 25.5 mmt total production).

The upward trend in Canadian grain production in the 1980s was interrupted by the drought of 1988, felt in the grain belts of both the United States and Canada. Between 1987 and 1988 Canadian wheat yields dropped from 1.91 mt/ha to 1.23 mt/ha. Figure 4 shows total wheat production, exports, and domestic use over the past decade and this clearly depicts the sharp drop in Canadian wheat production from 26.0 mmt in 1987 to 16.0 mmt in 1988, a decrease of 38.5 percent. Total grain production recovered significantly in 1989, jumping back up to 24.4 mmt [26]. The lingering effects of the drought were still apparent, however, in the low level of Canadian grain stocks (down 50 percent from 1986 levels in 1989).

ROLE OF THE CWB IN CANADIAN AGRICULTURAL POLICY

The Canadian Wheat Board operates within an intricate network of federal agencies and provincial organizations, and its operations are affected by federal legislation (and indirectly by provincial legislation). Federal legislation provides the CWB with its monopoly powers which it, in turn, uses to contribute to the goal of maximizing market returns for Western Canadian producers of wheat and barley.

The federal government is not involved in day-to-day operations of the CWB. Instead, the CWB works closely with different agencies such as the Canadian Grain Commission (CGC). The CGC, established by the Canada Grain Act of 1912 and amended most recently in 1989, is governed by three commissioners appointed by the Governor in Council (the federal cabinet). Their objective is to "establish and maintain standards of quality for Canadian grain and regulate grain handling in Canada, to ensure a dependable commodity for domestic and export markets" (Part I.13, CGA 1989). The CGC recommends and establishes grain grades and standards and is responsible for implementing a system of grading and inspection to ensure efficiency of Canadian grain marketing including exports.

The Canadian system of quality is based on varietal registration. Export grade standards are set more stringently than primary (local) grade standards by the CGC. This is possible because the primary grade standards are minimum quality requirements. Since some grain in each grade will exceed those minimum standards at the primary elevator, blending within the grade will result in higher quality grain at export position, which is reflected in the more stringent export grade standards. The price premium received for top grades depends on supply and demand conditions in each export market. Canada's priority for superior grain quality is reflected in the CGC inspection process:

The Canadian Grain Commission ensures that wheat delivered to terminal elevators is segregated and binned according to grade and, in the case of Nos. 1 and 2 CWRS, protein content. During loading onto a vessel, wheat is inspected to ascertain that it meets the specifications for that grade. Only when the Inspector-in-Charge is satisfied that the grade and the weight are correct does he issue a "Certificate Final". The issuance of an Inspector's Certificate was included in The

Canada Grain Act of 1912; it is still a part of the Canada Grain Regulations of the revised Canada Grain Act. Such is the confidence of buyers throughout the world in the Canadian grading system that they readily buy Canadian grain on the basis of the official grade and without demanding samples of shipments for prior examination, accepting the Certificate Final as their guarantee of quality" (Quality Control in Canada's Grain Industry, 1988).

The CGC has regulatory authority over country elevators in the CWB designated area and specified export facilities, and formerly had the authority to call for the allocation of available rail cars to secure the efficient delivery of wheat. This authority was recently transferred to the Minister of Transport and the Grain Transportation Agency (GTA).

The GTA, created in 1980, has three objectives: to be an impartial coordinator for the entire grain handling and transportation system; to ensure prairie grain moves to domestic and export positions in an efficient, reliable, and effective manner; and to minimize grain handling and transportation costs to producers [19]. The GTA maintains control of rail car allocation between Board and non-Board grains. The GTA coordinates the movement of Western grains with the railway system and works closely with the CWB.

Aside from these federal agencies, the Canadian International Grains Institute (CIGI) also works closely with the CWB and holds educational programs with technical and marketing information for domestic and international customers and others involved in the grain industry. The Institute is funded 60% by the federal government and 40% by the CWB, and is managed jointly by the federal government, the CWB, and the CGC.

Before further examination of the CWB, an important aspect to consider is the amount of

freedom the CWB has been granted by law in its operational decisions. The CWB was established through a policy decision by the federal government. The CWB's original agenda was to be an instrument with which to stabilize and control domestic grain markets. The CWB operates under the auspices of the Act from which it was created, the Canadian Wheat Board Act (CWBA). It is responsible to Parliament through its Minister of State (Minister of Grains and Oilseeds), and informally to the elected Producer Advisory Committee. Although the CWB reports to Parliament through its Minister of State, according to the legislation the Minister cannot influence the CWB on specific sales decisions. This is stipulated to occur only through Order in Council and only in areas specified within the regulations of the CWBA. In practice, however, the Minister has on occasion influenced CWB operations without going through Order in Council. Canadian participation in the USSR grains embargo in 1980 is an example of such a case.

The CWB has latitude in its pricing and marketing decisions, including the terms of sale in its long term agreements (LTAs), and the setting of delivery quotas throughout the year. The CWB also has complete freedom in choosing the countries with which to enter into LTAs, subject only to export control legislation. CWB selling, pricing, and market targeting strategies are for the most part not public information. Canada's trade and domestic agricultural policy, on the other hand, as well as the overall objectives and functions of the CWB, can be described as in the following sections.

Canadian Agricultural Trade Policy

Canada's general trade objective is, "To support broad economic policies that aim to increase output, create jobs for a growing labor force, increase income, and increase Canadian competitiveness" [23]. According to an OECD

report on Canadian agriculture, there are four main agricultural trade objectives:

1. A commitment to export market development: increased export volume and value added;
2. Ensuring world market distortions do not destabilize markets, prices, and farm income;
3. Preserving Canada's relative share of the export market for agricultural commodities;
4. A commitment to market forces to ensure adjustment and efficient resource use domestically and internationally [23].

Canada supports international agricultural agreements mainly in its role as a contracting party of the General Agreement of Tariffs and Trade (GATT), and as a leading member of the Cairns group, consisting of both developing and developed GATT member countries (mainly net exporters).³ But Canada also maintains trade agreements with Commonwealth Countries; the United States (Canada-U.S. Free Trade Agreement, 1989); holds regular meetings with the European Community (EC) and Japan on agricultural issues, stemming from bilateral agreements of the 1970s on industrial and economic co-operation [23]; and with other countries.

Canada imposes tariffs on imported products at four different levels: a general tariff, the Most Favored Nation tariff to GATT member countries, the British Tariff Preference to certain Commonwealth countries, and the Generalized System of Preferences Tariff to developing countries with some product exemptions.

Concerning non-tariff barriers, a 1968 Anti-Dumping Act is in force, as is a "Canadian law that provides for the application of 'safeguard' action in the form of a surtax on

imports when there is a threat of injury" [23]. Finally, the Export and Import Permits Act (established in 1947) allows government to implement border controls on either import or exports. "Recourse to the provisions of the Act for the introduction of import quotas and permits has occurred for several agricultural products, mainly those under national supply management programmes (and for meeting obligations under international commodity agreements)" [23]. Wheat import and export permits are licensed solely by the CWB. The effects and future of this are discussed in a later section.

Another aspect of Canada's agricultural trade policy is export credit, which provides "payments in accordance with terms and conditions approved by the government of Canada to facilitate sales of grain and grain products on credit to developing countries" [17, citing government of Canada, Public Accounts, various years]. The CWB can finance sales of Western grain on credit terms of three years or less, at commercial rates of interest. The CWB aims to recover its full costs of interest on money borrowed to finance credit sales. The Cabinet sets the conditions for CWB export credits, including approving liability limits on credit. Any changes to these conditions are made on a case-by-case basis. If the Cabinet approves, grain can be sold at a premium covering administrative costs only (Section 27 of Export Development Corporation Act). CWB credit, in turn, operates under a guarantee provided by the federal government and within government established credit parameters. Nine percent of the CWB's total wheat sales and 4 percent of barley sales were made under credit in 1988/89. Recipients of grain credit agreements in 1989 included Iraq, Algeria, and Jamaica [10].

The Canadian International Development Agency (CIDA) handles international food aid in Canada. CIDA purchases grain from the CWB at commercial prices on a bid basis and distributes it to recipient countries. Grain export

shipments under food aid programs dropped from 1.17 mmt in 1986-87 to 0.906 mmt in 1988-89, a 22 percent decrease. Bangladesh, China and Morocco were the three largest food aid recipients of wheat and flour in 1988, receiving altogether 464,000 tons [10].

Stabilization and Transportation Policies

Two main federal laws related to grain production in Canada are the Western Grain Stabilization Act (WGSA) and the Western Grain Transportation Act (WGTA). The WGSA covers many commodities and protects producers in the CWB designated area against extreme fluctuations in annual income. It also covers grains and oilseeds not marketed by the CWB. Participating farmers and the federal government pay a levy into the WGSA account based on a percentage of the producer's eligible receipts. When eligible net cash flow falls below the average of the previous five crop years, payments from the account are made to producers. In the 1988/89 crop year, 90.2 percent of all grain producers participated in the WGSA. Individual producer contributions to the WGSA are limited to a percentage of a maximum of \$60,000 of eligible receipts.⁴ The WGSA safety net lowers risk for participating producers and helps retain more resources in the sector than there otherwise would be.

The second federal policy significantly affecting grain producers concerns grain transportation, which from 1897 to 1984 fell under the jurisdiction of the Crows Nest Pass Agreement. The statutory rates for grains, established in 1897, significantly subsidized the transportation of grains in Canada from producers to ports of export. The Western Grain Transportation Act (WGTA), enacted in 1984, allowed the statutory rates to rise after 1984, however rates are still significantly subsidized. A list of grains qualifying for the statutory rates appears in Table 2. Unlike the prior transportation agreement, the WGTA provides

for a gradual increase in producer share of rail freight costs, and places a limit on yearly government outlays for grain transportation.

Currently Cdn \$659 million is paid yearly by the Canadian government to the railroads, including a share of railway cost increases [18]. It is now estimated that the shippers' freight rates cover about 30 percent of the actual cost of moving the grain. The subsidy component in rail freight costs has had several economic impacts:

This has the effect of increasing grain producer revenues above longer run equilibrium levels if full cost compensatory transportation rates were in effect. While the initial objective of the Crow rates was to encourage economic development in Western Canada, over time the Crow rates have evolved into a major development constraint, with some distortion in resource allocation. To the extent that grain farmers receive higher than equilibrium prices, this attracts resources (land and capital) into grain and oilseed production. It also increases the value of land and buildings as the economic rent is capitalised by grain farmers" [23].

In the report of the internal review of the CWB, September 1990, reviewers discuss the possibility of a federal government rate change under the WGTA, and a potential compensation package to recognize the Crow Benefit [13, p. 27]. The paying of full rates would represent to the producers a three-fold increase over current rates. Possible options include: status quo, full rates with a schedule of premiums and discounts which are negotiated between carriers and shippers, or completely deregulated rates which are negotiated with shippers [15]. The effects of such a change on grain production and thus CWB operations, however, are unknown at this point.

Impact of Provincial Governments, Interest Groups on Agricultural Policy

Federal and provincial governments share responsibility for agriculture in Canada and there has been a co-existence between federal and provincial governments concerning the evolution of agricultural policy. Goodloe states, "Provincial policies of self-sufficiency have sometimes conflicted with national goals" [18]. Within its boundaries each province has jurisdiction over production and marketing decisions, leaving inter-provincial trade to be regulated by the federal government. The provinces must adhere to federal legislation but can design provincial legislation to raise the level of support to grain producers above the federal level. Provincial governments supplement federal government assistance and "fund a variety of income stabilization programs and 'sweetening of the pot' production subsidies" [6, Coffin]. An example of this is seen in the Province of Ontario:

"Ontario producers have the option of participating in a provincial stabilization program which makes payments equal to a support level of 95 percent of the previous five year average price (adjusted for changes in the cash costs of production), and the current federal support level of 90 percent. This protection is financed jointly by the Ontario government (two-thirds) and by producers (one-third) [2]."

In this case provincial legislation raises total benefits to participating producers 5 percentage points above the federal level. The province of Quebec offers a similar program. The divergent levels of total support between provinces somewhat undermines the Canadian government's desire for equity among Canadian producers. Some policy makers in Canada consider a stronger consensus between the federal and provincial governments imperative in the future if Canadian agriculture is to continue

to operate efficiently. This problem is recognized in the Grain and Oilseed Safety Net Committee report, but as yet has not been addressed by the federal government.

THE OPERATIONAL ROLE OF THE CANADIAN WHEAT BOARD

With the policy framework surrounding Canadian agriculture as sketched above, we will now focus on the scope and various operating characteristics of the CWB, and draw some tentative conclusions on the possible effects of the state trading entity on Canadian and world grain markets.

Objectives and Organization of the CWB

The mandate of the CWB is to maximize returns to prairie producers from grain sales; to provide prairie grain producers with price stability within the year; and to ensure that each grain producer gets a fair share of the available markets returns each year [21]. Table 3 lists the objective and powers of the CWB as laid out in the 1989 CWBA. To achieve its objective, all wheat and barley for export and for domestic human consumption grown in Western Canada is marketed and sold through the CWB. Wheat and barley from the CWB designated area for domestic feed use can be marketed outside the CWB.⁵

The CWB also works to develop new markets for existing grades and grains, and for new varieties or classes of grain. The CWB sees the advantage of being a single-desk seller as follows: "There are several obvious advantages to having only one seller of Canadian wheat in world markets in terms of being able to maximize returns to producers, by not having a number of sellers trying to sell Canadian grain to the same buyer, and in terms of being able to guarantee delivery of a clean, quality product to suit a buyer's requirements" [11].

The monopoly position of the CWB prohibits other firms from competing against the CWB for sales of wheat for human consumption domestically and for sales of Canadian wheat and barley internationally. The CWB seeks to obtain producer returns that are more than they would be in a competitive market. Domestic buyers thus pay higher prices than they would in the absence of the CWB. Domestically, the CWB discriminates in its home market to achieve its objective of maximizing price for producers. Internationally, buyers who demand a higher quality wheat concede to paying higher prices for Canadian wheat than they would if there were competition to bid down the quality premium on Canadian wheat. This market behavior is similar to that of any private firm with a measure of market power. It is important to point out that the international trading arena within which the CWB operates is one dominated by a small number of oligopolistic traders.

The CWB reports to Parliament through a federal cabinet minister, who, at the present time is the Minister of State (Grains and Oilseeds). Three to five commissioners are appointed by Parliament to head the CWB, and hold office for an indefinite term. There is an 11-member elected Producer Advisory Committee, established for the purpose of advising the commissioners and the Board. The Advisory Committee members are elected from 11 electoral districts and hold office for a term of 4 years [14]. The Board must call at least 6 meetings annually of the Advisory Committee. Besides its advisory function, the Advisory Committee votes on resolutions to state its opinion on various matters. The CWB has three executive directors; directors of planning, finance and treasury, and marketing; and six general directors in charge of the six respective divisions within the CWB (Management Information Services, Finance, Personnel, Transportation, Sales and Market Development, Country Services). Total CWB administrative expenses

in 1988/89 for wheat, paid using producer returns from the pool account, amounted to Cdn\$ 17.9 million or Cdn\$ 1.26 per ton. This covered all operating expenses of the CWB, including salaries and benefits for a staff of 470 [10, 11].

Aside from its marketing role, the CWB owns approximately 2000 hopper rail cars that are used by the railways to transport grains to the terminal elevators. The Grain Transportation Agency (GTA) works with the railways to allocate grain rail cars through the prairies. The primary export shipping points for grain are Vancouver and Prince Rupert on the Pacific Coast, Churchill on Hudson Bay, and Thunder Bay at the head of the Great Lakes.

The Canadian Wheat Board owns no storage facilities and is not directly involved in the operation of such facilities. However, the CWBA (1989) stipulates that "every elevator shall be operated for and on behalf of the Board and no person other than an agent of the Board shall operate any elevator, unless the elevator has been excepted by order of the Board from the operation of this Act." Most producers provide grain storage on their own farms. A small number of producers store their grain in private country elevators (also known as prairie silo facilities) and pay a storage fee. There are cooperatives both within and outside the designated area of the CWB that run their own storage systems, returning profits to their members. The CWB makes its purchases through these approximately 1,860 privately owned and cooperative owned country elevators, predominantly in the CWB designated region of Western Canada.

The CWB owns no handling facilities but coordinates the timely movement of the kinds, grades, and quantities of grain required by customers with the GTA, private elevator companies, and the railways. Private grain handling companies, in turn, coordinate with the

GTA to ship grains that are not sold through the CWB. ⁶

Functional Characteristics of the CWB

The CWB sells 80 percent of its grains through direct sales between the Board and the customer. The other 20 percent is sold through accredited exporters. Traditionally this has been done on a "free on board" (f.o.b.) basis with customers taking possession of the grain at a Canadian export port and making their own shipping arrangements. More recently the CWB has used "cost, insurance and freight" (c.i.f.) sales, either arranging CWB's own freight or using the accredited exporters to provide shipping and handling. The buyer chooses whether f.o.b. or c.i.f. is used. There are 25 accredited exporters who can negotiate grain purchases for their customers with the CWB, arrange ocean freight, and other details of shipping and transport.

From 1967 to 1988 the CWB established its domestic selling price within a range set by the federal government under its various Two-Price Wheat Policies. In 1973 this policy established a floor price for bread wheat and durum wheat of \$119.42 per ton minimum and ceiling prices of \$182.72 and \$275 per ton maximums respectively; a government subsidy on wheat to a maximum of \$64.30 per ton; and a consumer subsidy determined and paid on a monthly basis to the Canadian Wheat Board on behalf of wheat producers [17]. Revisions in 1980 ended the provisions for government subsidies on domestic wheat sales, and raised the minimum price charged to domestic millers. The policy governing the establishment of domestic wheat prices changed several times, but in general from 1980 to 1986 resulted in prices ranging from Cdn\$ 5 to Cdn\$ 7 per bushel for No. 1 CWRS. From 1986 to 1988 the price was fixed by the CWB at Cdn \$7 per bushel. In 1988, the CWB began setting its domestic wheat price based on wheat prices in the United States and moved from a two-month pricing basis to a weekly

basis. Since January 1991 prices have been established daily, based on comparable U.S. markets (Minneapolis Grain Exchange prices for U.S. Hard Red Spring Wheat), with an adjustment for quality factors [11]. In effect, this new policy moves Canada away from a two-price system and causes Canada's domestic price to follow U.S. prices.

Internationally, individual transaction prices are established through detailed analysis of the market and negotiation with the buyer or through competitive tenders called for by the customer. Major factors used in establishing selling prices include: competitors' pricing and market strategies; quality; timing of sale; supply and demand conditions in Canada and in world markets for that grain and grade; transportation costs and shipment position; and competitors' export subsidies [11]. Competitors' export subsidy considerations include U.S. Export Enhancement Program sales and EC export restitutions.

Another CWB function is to issue export permits for any wheat or barley sales from Canada and to issue import permits for wheat. Export permits on wheat known to be grown outside of the designated area of the CWB are granted automatically by the CWB. Since 1985 import permits for barley and oats have been under The Department of External Affairs.⁷ If the issuing of import permits for wheat were removed from CWB control, the CWB estimates that pool account revenues would decrease [11]. Controlling import permit issuances has the effect of a quota, allowing the CWB to maintain domestic prices above world market price. However, the move to daily price setting of wheat (January 1991) removes the incentive to use import permits to control domestic price. Prices are determined from the Minneapolis exchange and no longer insulated domestically. However, there is differentiation based on quality factors.

The decision by the CWB to move to a daily price setting system was made partly in anticipation of the removal of import permits under the Canada-U.S. Free Trade Agreement (CUSTA) of 1988. This will further link Canada's domestic price to the U.S. price for wheat. Competition with wheat from the U.S. will be allowed in Canada for the first time. The CUSTA stipulates that Canada must eliminate the import license requirement for U.S. oats, barley, and wheat, along with their respective products, when government support levels in Canada are considered to be equal to or higher than those in the United States. Government support levels are determined on a two year average basis, using an aggregate measure of support calculation defined in the CUSTA. The U.S. level of support at the signing of the agreement was significantly higher than in Canada [5]. However, the drought of 1988 created an anomaly whereby the change in import regime for barley and wheat was triggered in May 1991. The border is now open to U.S. wheat. Canada requires end use certificates on U.S. wheat so it does not end up in Canadian exports. This was done for oats and in addition, oats have been placed outside of CWB control. Furthermore, Canada maintains varietal control such that U.S. imports must be milled as feed or if for human consumption, must be an identifiable variety under the variety control regulations and grading system. In addition, the CUSTA will eventually reduce or eliminate all agricultural tariffs, most over a ten year period. This includes processed agricultural products. Raw materials and commodity prices are expected to soon be no higher than those available to the American competition so Canadian processors can compete directly with processors in the United States [12].

Delivery Quotas and Pool Accounts

The CWB has used a delivery quota system since 1940. This system bases total delivery rights on acreage owned by each producer and is

used to ensure equitable access to the system. There is also a bonus acreage provision to account for productivity differences among regions. Supply control is not a goal of the quota system. The delivery quota can be increased throughout the year depending on demand. However, there are constraints on the commercial capacity to store or handle a full year's production, which explain the limits placed on deliveries at any one time. Some farmer's production decisions will be affected by their ability to store grain before it is called to delivery. Regardless of the set aggregate level of the delivery quota, the delivery quota system gives all producers equal access to the grain handling and transportation system throughout the crop year.

To achieve its objective of stabilizing price received by each farmer, the CWB uses a pooling system that guarantees farmers the same average price, by grade, for all grain delivered to the CWB in a crop year. The four pool accounts are wheat, durum wheat, barley, and designated barley for malt. Pooling is a means of sharing market risk equally among all prairie grain farmers [24]. The farmer first receives an initial payment for deliveries. The initial payments are typically set at a fairly conservative level and since the early 1970s have been announced before spring seeding so that producers can judge marketing prospects for the year. Initial prices are set by the federal government based on recommendations from the CWB, Agriculture Canada, and the Department of Finance. They are adjusted each year to meet the emerging market realities. For example, in 1984/85 the initial price was \$170/mt for #1CWRS. This was reduced to \$160/mt in 1985/86, \$130/mt in 1986/87, and \$110/mt in 1987/88 due in part to the ongoing U.S.-EC price subsidy war [11]. If a deficit is incurred in the pool account, the initial price is adjusted the following year based on expected market returns. The initial payments less transport and handling to the export point are guaranteed by the federal

government as are the minimum amount farmers receive for their deliveries.

In addition to farmers sharing market risk equally in the pool accounts, marketing costs are also equally shared. To calculate a farmer's individual share of pool account costs, total operating costs are subtracted from total revenue. The remainder is divided by volume sold to arrive at a net pooled value. Farmers are thus charged total costs on a per bushel basis [24]. Short term fluctuations in price are not transferred to farmers who may have delivered to the CWB in an extremely high or low price period but instead are averaged over the crop year.

Once the total cost associated with marketing wheat has been deducted from the pool accounts and a surplus remains, farmers are "paid out" based on the quantity and grade of production sold to the CWB. This is known as the final payment. The wheat pool accounts have run into deficit only four times in fifty years, forcing the CWB to call for federal government assistance. In all pool accounts the CWB has had to utilize the federal guarantee to cover a deficit just 15 times. These deficits represent less than one-tenth of one percent of the total value of wheat sales during the last four and one-half decades. The biggest deficit occurred most recently in 1985/86, the year during which world prices fell dramatically due to the introduction of the U.S. export subsidies under the Export Enhancement Program, created in response to the continuing EC export restitution program. The CWB has been successful at setting initial prices as evidenced by the fact it has incurred few deficits. The CWB has also achieved its original goal of the 1930s, preventing large fluctuations in grain supplied.

In 1988 the CWB was given the authority under Bill C-92 to create commercial paper with the backing of a government guarantee. This change allowed the CWB to generate financing

to make the initial payments before receipt of sales revenue [11]. The certitude of the government guarantee lowers the interest rate paid by the CWB. This is an indirect implicit subsidy equal to the difference between the market interest rate and the preferred interest rate. Less of the producer's money is lost to interest as a result. It follows then, that this benefits the producer, since the CWB's role as a non-profit organization dictates that all gains above administrative and operating costs be returned to Western wheat and barley producers.

TRADE FLOWS, EXPORT DESTINATION BY REGION AND COUNTRY

Canada sells wheat to approximately 90 countries throughout the world. The CWB has relied on Long Term Agreements (LTAs) with several countries since the 1960s to secure a portion of its market over time. LTAs stipulate only the quantity of grain to be provided during the period of the contract (up to 5 years). The conditions of the actual sales are later negotiated within the quantity guidelines, known as the Contract Of The Agreement. This is when prices, grades, loading ports to be used, and quantities in specific periods are established [23]. The CWB also has a number of informal understandings similar to LTAs with some countries (i.e. Japan).

The CWB assures that, "Prices do not vary between countries due to bilateral agreements but for supply and demand reasons, including requirements for certain quality characteristics, cleanliness, timing, consistency of quality from shipment to shipment, transportation costs, shipment positions, moisture levels, and credit terms." Historian William Morriss sees LTAs as the CWB's key weapon in its sales arsenal because of the reliability of supply guaranteed to the purchasing nation [22]. A list of some of the CWB's LTAs through 1987 appears in Table 4. The People's Republic of China and the USSR were two of the larger buyers of grains from

Canada using LTAs. Also important were Egypt, Iraq, Brazil, Bangladesh, and Japan.

There is great year-to-year variation in the reliance on LTAs, reflecting current market conditions, the rate of renewal of old LTAs, and the development of new ones. The details of LTAs were no longer made public after 1987. Grain price negotiations in general reflect "prevailing supply-demand conditions and price trends in world markets," but are often tailored to the needs of the buyer [11].

Price negotiations are not in the public domain but may include variables as minor as specifying the timing of delivery, or as major as giving a long-established customer special price concessions. A parallel has been drawn between the pricing policies of the CWB and those of the large grain-trading companies [6, Turner]. Yet one difference between them is that the CWB's sole objective is to maximize returns to producers while private traders aim to maximize returns to themselves. In effect, the CWB will not take advantage of the producer, while the private grain traders have few qualms about lowering price offered to the producer and raising consumer price in order to increase their profit margin. The CWB extracts monopoly rents from domestic consumers, reflected in higher domestic prices, but this is not expected to continue much longer in light of the CUSTA.

An important question to consider is whether CWB operations can significantly affect world wheat market prices and conditions. Canada does not exercise sufficient leverage to manipulate world wheat market price overall. Its ability to affect wheat prices is limited to specific country-by-country cases or where an importing country relies on Canada for all of its wheat. Even in such cases its impact is debatable because other suppliers could replace Canada at a lower price. Aside from wheat, say in the case of coarse grains, Canada's proportion of world coarse grain exports is relatively small

(5.3 mmt of 83.2 mmt total coarse grain exports in 1987/88, for 6.4 percent of world market share). This small market share dilutes any economic leverage that Canada may be able to exert over grain markets.

In general, Canada has supplied wheat to a fairly consistent group of countries in the 1980s. Tables 5 and 6 show quantity and value of Canadian wheat exports from 1980 to 1987 separated into 4 categories; large, intermediate, smaller, and a catch-all category of its small and intermittent markets. Canada's top three markets, China, USSR, and Japan, account for approximately 50 percent of total quantities exported (Table 5). Other strong markets exist in Asia (South Korea, Bangladesh), North Africa and the Middle East (Algeria, Iran, Iraq), Central and South America (Cuba, Venezuela, Brazil), the United States, and the European Community (United Kingdom, Italy). South Korea, Venezuela and Cuba are steadily growing markets, with the UK and Italy waning, a reflection of growing EC grain self-sufficiency. Sales to Iran are sporadic, fluctuating from 26 thousand metric tons in 1985 to 664 thousand metric tons in 1987. The most stable markets are the top three.

The price results in specific markets are proprietary information, however, some indications of average unit value can be drawn from U.N. trade data, derived from quantity and value of Canadian wheat exports. This unit value measure does not actually reflect prices or price comparisons because of different sales conditions and transactions, including transportation, timing of sales and different grain grades sold, however it does give a rough average unit value. Table 7 reflects unit values (\$US per metric ton) among the different export markets.

One or a combination of reasons can explain the difference in unit values in the largest three markets. The differences could simply reflect

the different grades of wheat purchased. If China consistently buys lower quality wheat and Japan buys premium grades, it is logical that their unit values differ. Alternatively, price discrimination could be occurring between markets. Assuming the grades of wheat purchased by each of these countries has remained the same over time, grade differences seem to be a plausible explanation for the difference in unit value, as it remained fairly constant throughout the 1980s. The differences in unit values are too large to be explained by differences in transportation costs.

RECENT POLICY DEVELOPMENTS

The Canadian Department of Agriculture (Agriculture Canada) recently completed a review of government programs and assessed changes that may be needed, inter alia, to improve Canadian competitiveness in world markets in the 1990s. This policy review looked primarily at issues of transportation, supply management, competitiveness in world markets, and producer stabilization programs.

At this writing the final results of this review were still undetermined, but one tenet of the review could affect grain producers participating in stabilization programs. The Grains and Oilseed Safety Net Committee was formed to look at such programs. In their first meeting in January 1990 and subsequent report (April 1990), it was recommended that the WGS and the ASA be completely revised in favor of improved 'safety net' policies aimed to better reflect regional divergence, encourage market responsiveness, and contribute to self-reliance and long term sustainability. To achieve this, the Committee suggested an improved system of income stabilization and safety net policy, national in scale, focussing on short and long term assistance. The following problems were addressed:

- 1.) Current programs have not provided adequate short term assistance to grains and oilseeds producers. As a result, ad hoc programs have had to be developed to meet the need;
- 2.) Different programs in Eastern and Western Canada have raised the issue of equity at both producer and government levels;
- 3.) The way farm-fed grain is handled under existing programs has led to producer dissatisfaction;
- 4.) Current programs do not target benefits or losses in an effective manner [2].

The inadequacy of present programs is evidenced in ad hoc programs such as special drought compensation programs (1984, 1988), flood compensation, and the Special Canadian Grains Program which responded to international export subsidies and trade wars in 1986 and 1987, all of which were left unaddressed by current programs [2].

The Committee recommended adopting a Gross Revenue Insurance Plan (GRIP) as the primary basis for a new grain and oilseed safety net program. It has been implemented for the 1991-1992 crop year. GRIP is intended to provide farmers with a form of revenue protection coupled with crop insurance. A producer could take part in one or both components of GRIP. GRIP will be based on target revenues and market revenues, paying out when market revenues fell below the target level. It could be calculated with either a commodity specific or basket approach, decided by the producer. The crop insurance component will be administered by provincial agencies and premiums will be shared by producers (50%), the federal government (25%), and provincial governments (25%). The premium rates are not likely to be the same among the provinces [25]. One estimate is that "GRIP could be expected to

pay out in the neighborhood of CDN \$ 2.7 billion for 1991-92." [4]. The sign up period to participate in GRIP ended in mid-May 1991.

In addition, a Net Income Stabilization Account (NISA) will be available, where farmers make voluntary contributions to individual accounts and are matched by producer and government levies (federal and some provincial) paid on a percentage of qualifying sales of agricultural commodities (e.g. net sales). Government will match up to 2 percent of net sales, however, farmers could contribute up to 20 percent of net sales to the account. A maximum of CDN \$250,000 for net sales is allowed for NISA. Payouts from the fund will result whenever the individual farm's gross margin falls below the previous five year average level of returns (after costs) or when taxable income falls below CDN \$10,000 [4]. The two programs are complementary and voluntary. They are to be jointly administered by producers and government; implementation is targeted for the 1991/92 crop year for GRIP; for NISA, the tax year 1990. Combined they are expected to provide an estimated \$3 billion in benefits to grains and oilseed producers in the 1991-1992 crop year [4]. Alberta has not agreed to NISA at this time.

Adopting the Committee's plan will certainly affect the level and mix of market support grain producers receive, but the overall impact on the Canadian grain trade will be difficult to predict until this new policy is in operation, and support price levels and other costs associated with the proposal are known. Possible effects on the CWB are unclear. In general, the GRIP indexed moving price coverage figure for wheat (\$146.98) is much higher than the Winnipeg commodity exchange cash price (\$111.06) [25, citing the Canadian Grain Commission and Agriculture Canada]. And CWB wheat initial prices are also lower. How this will affect planting decisions is unknown at this point.

Some doubt GRIP will be production neutral as originally planned [25].

The CWB recently conducted an internal review. During summer 1990 the review panel made recommendations to the Board on how the CWB can strengthen the viability of the grain industry in Western Canada throughout and beyond the 1990s, while maximizing returns to the Western producer. A major consideration of the review focussed on maintaining and improving competitiveness with the United States, particularly in light of the CUSTA. The recommendation included an increased CWB role in the domestic feed industry; continued control of export permit authority; a renewed focus on secondary processing cooperating with the malting and milling industries; adoption of a modern corporate structure; in financing, it was recommended that the CWB borrow directly from the producers (which would return to the producer, net of costs, a rate of interest comparable to the rate incurred by the Board from other sources); continued involvement in the allocation of rail cars; and possible participation in the U.S. futures market [13].

EVALUATION AND CONCLUSION

Throughout its 55 year existence the CWB accumulated deficits only a few times and maintained a fairly steady international market share subject to production variations. The final payment offered to producers is usually made and Canadian grain is considered to be of the highest quality in the world. The CWB performs its marketing, operating, and purchasing tasks on an average of \$Cdn 1.26 per metric ton cost to the producer in 1988. To evaluate fully the Canadian Wheat Board a distinction must be made between its domestic and international operations. On the domestic side the CWB is both a monopsonist buyer and a monopolist seller of Western Canadian grains for human consumption, while on the international stage, the CWB is only a monopsonist buyer of

Canadian wheat and barley (and currently controls grain entry into Canada using import permit controls). There are several factors on the horizon that may alter current CWB operations, or force the CWB to change its scope of operations.

Domestically, the most important change implemented by the CWB is to alter price setting from a weekly to a daily basis. Although domestic use comprises a small proportion of total CWB sales, this move will have an impact on CWB operations; daily price calculation will expose fully the domestic markets to international price fluctuations and thereby increase short term price variability. This move will also lessen the short term discrepancy between the domestic market price and the signals being flagged on the international market, and will reduce both the CWB's and the miller's short-term windfall gains or losses against the international market. The producer will still be insulated within the year from these accelerated market signals because of the pooling system; Western Canadian wheat and barley producers will still each receive the same initial payment, as well as the same final payments after the end of the crop year. This change is not expected to alter the CWB's domestic purchasing behavior nor create any new incentives for producers to deliver in periods of high price.

Change in the CWB will also result from the Canada-U.S. Free Trade Agreement (CUSTA) reached in 1988. Canada's role as a two-sided monopolist in domestic grains is now finished, due to a stipulation in the CUSTA concerning border controls between Canada and the United States. According to the agreement, once Canadian agricultural support levels become equal to or greater than U.S. agricultural support levels, certain import restrictions are to be removed. On May 3, 1991 the formula calculated level of support was 31 for Canada and 27 for the United States. With the removal

of import permits the CWB's ability to insulate domestic price is lost.

In addition, adopting a more competitive rail rate system for Western grain transport in lieu of the long-established, highly subsidized statutory grain rates structure would undoubtedly affect the Western grain network, the CWB in setting the initial price, and the grain industry overall. The removal of this major subsidy would force Western producers to share a larger cost in the transporting of grains. There is a great deal of disagreement as to what this would do to total grains produced or exported, but such a move would, besides raising the cost to producers, decrease the cost to the federal government and Canadian taxpayers.

Finally, one last factor on the horizon is implementation of the recommendations of the Grains and Oilseeds Safety Net Committee on stabilization policy. The WGS and ASA will be replaced with the GRIP and NISA options. The new plan attempts to incorporate agricultural issues covered in ad hoc legislation (such as crop disaster assistance) but currently left out of major federal laws, into an all-encompassing grain safety net policy. This change could possibly attract more resources into the grain industry and change current resource allocation. However the impact on CWB operations is unclear.

Internationally, the position of the CWB as a monopoly purchaser allows it to trigger Canadian wheat onto the market whenever conditions are favorable, and if not favorable, market control can theoretically be exercised to minimize losses. During the 1970s and 1980s the CWB generally sold each crop in the following season, apparently recognizing that as a small enough supplier in the international market, withholding stocks would not have an appreciable effect on world prices. It may be possible for the CWB to differentiate price among small country importers but this is difficult to discern. Where the CWB can exercise its monopsonistic control, in its role

as a grain purchaser, it doesn't choose to do so -- maximizing returns to producers remains its primary goal.

One advantage the CWB may have over private international grain traders is access to advantageous information systems. As a Canadian government body the CWB can be party to government consultations with other countries. This can provide the CWB with information not generally available. The CWB internal review panel recommends it work even harder to increase information access both domestically and internationally -- to the Canadian producer and the global village [13].

Currently all producers receive equal returns from the grain pool accounts and have equal access to the grain handling and transportation system. Without the Canadian Wheat Board, oligopolistic private grain traders would likely dominate the scene, and price instability potentially could increase. In addition, the distribution of revenues among producers would be much less egalitarian.

So far GATT restrictions on state trading activity that would affect the CWB seem much less imminent than the impacts of internal CWB changes (domestic pricing policy); reforms being considered by Agriculture Canada (increasing competitiveness); or bilateral agreements such as the Canada-U.S. Free Trade Agreement (removing border controls with the U.S.).

ENDNOTES

1. In 1987 Canada was the sixth largest grain producer in the world, producing 25.9 million tons of wheat. China was the top producer with 85.8 million tons, followed by the USSR (83.3), the EC-12 (71.6), the United States (57.3), and India (45.6) to complete the top five (1988/89 CWB Annual Report). China, the USSR, and Japan were the largest purchasers of Canadian wheat in 1987-88 (Table 5).
2. The radical drop in 1970 was due to a one year government program known as LIFT (Lower Inventories For Tomorrow), which provided producers with \$63 million to remove land from the cultivation of wheat. This action was an attempt to control burdensome stock levels that were at an all-time high, while minimizing the depressing effect on price received.
3. Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Hungary, Indonesia, Malaysia, the Philippines, New Zealand, Thailand, and Uruguay comprise the Cairns Group.
4. The second federal agricultural stabilization legislation, the Agricultural Stabilization Act (ASA) is targeted to stabilizing a number of product prices, including grain, outside the designated area of the CWB [2].
5. Marketing boards outside of the Designated Area of the CWB exist, such as the Ontario Wheat Producers Marketing Board. The Ontario Wheat Board can sell to Canadian millers as well.
6. Some grain handling companies are the United Grain Growers, Alberta Wheat Pool, Saskatchewan Wheat Pool, Manitoba Pool Elevators, Cargill. There are others.
7. Import permits on oats have been removed for the U.S.

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thousand hectares

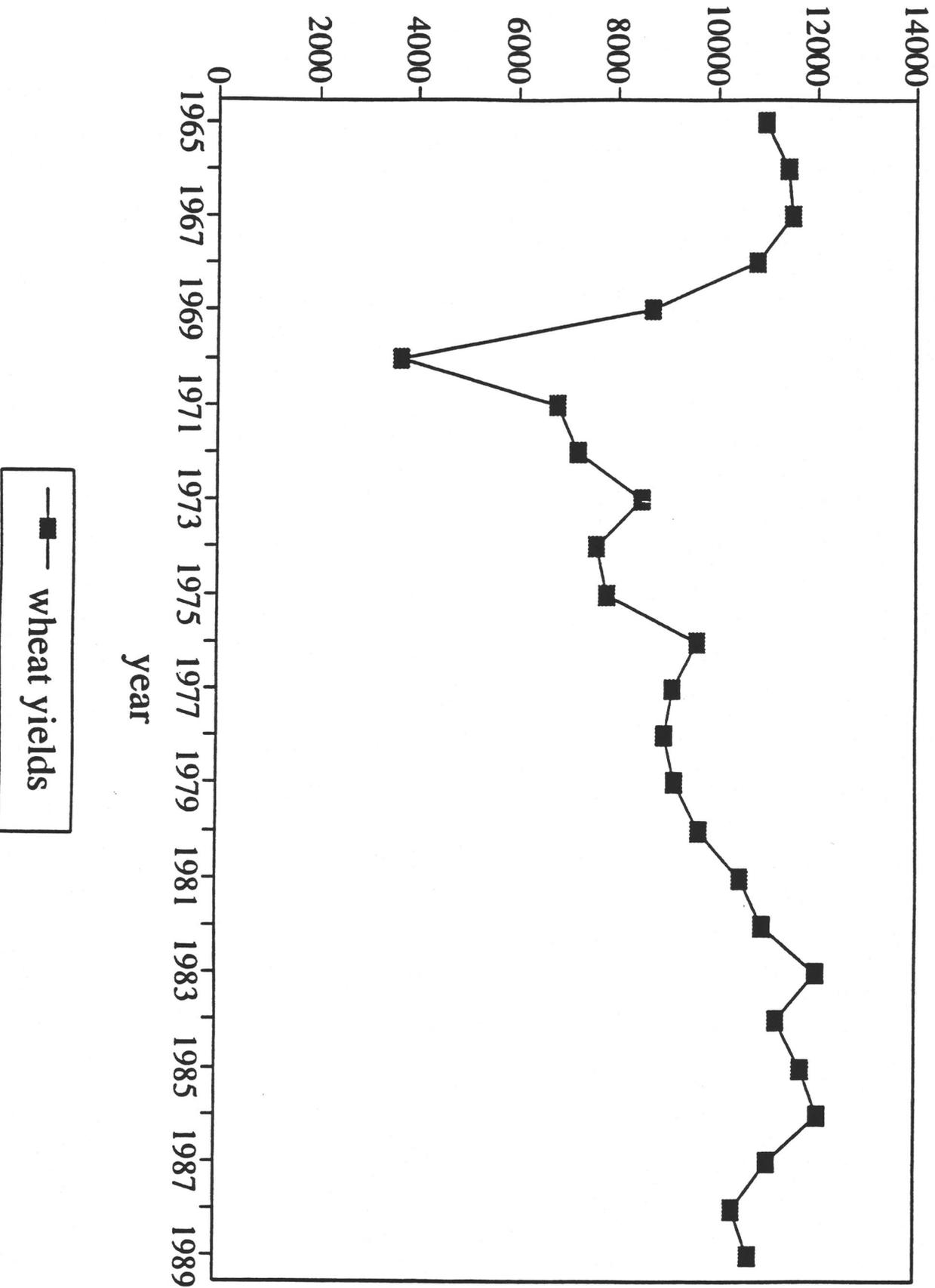
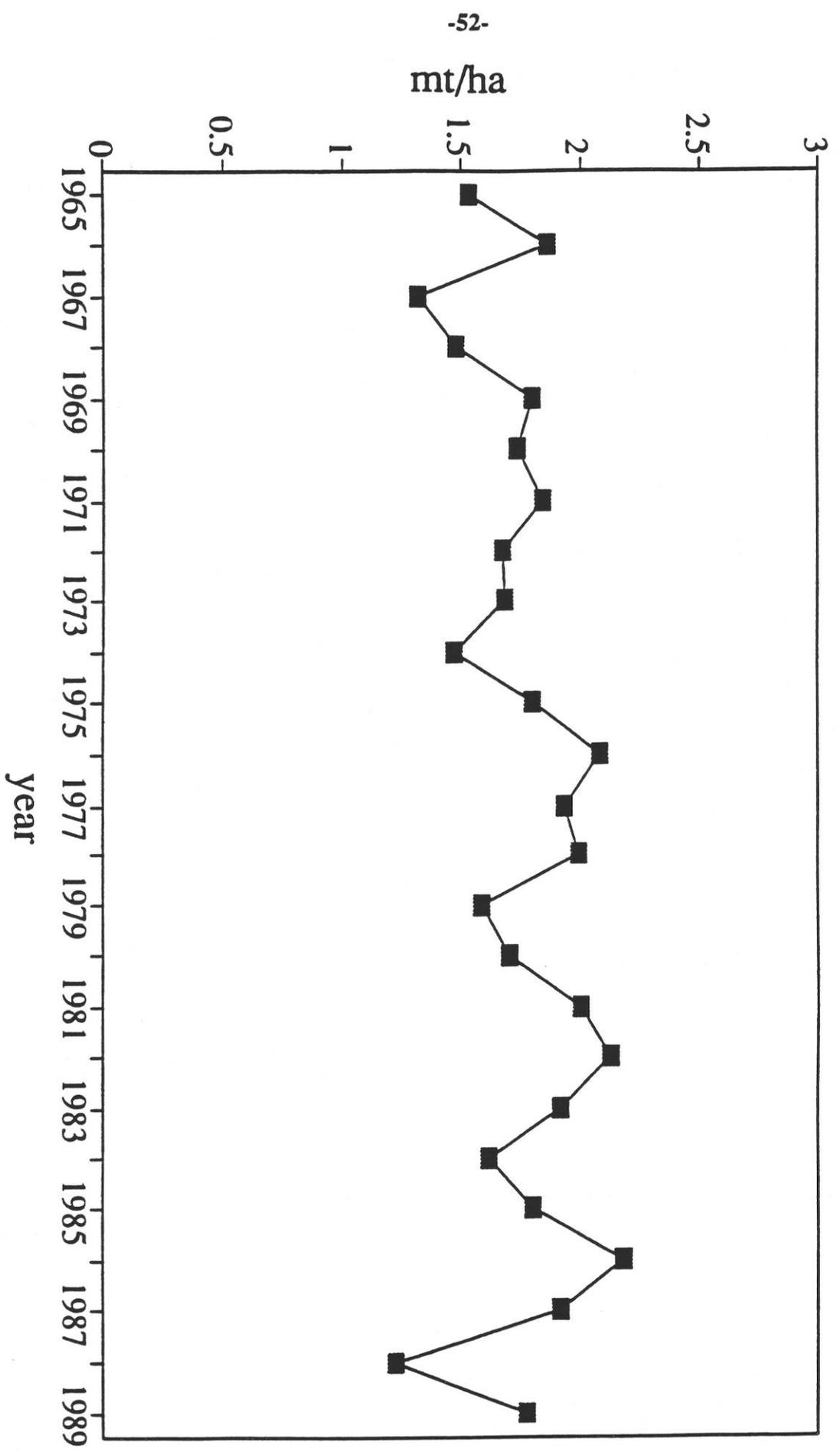


Fig 2: Area Planted to Canadian Wheat
1965 to 1989 (000 hectares)

Fig 3: Canadian Wheat Yields, 1965-1989
(metric tons/hectare)



—■— wheat yields

Fig 4: Canadian Wheat production, exports, and domestic use (mmt/ha)

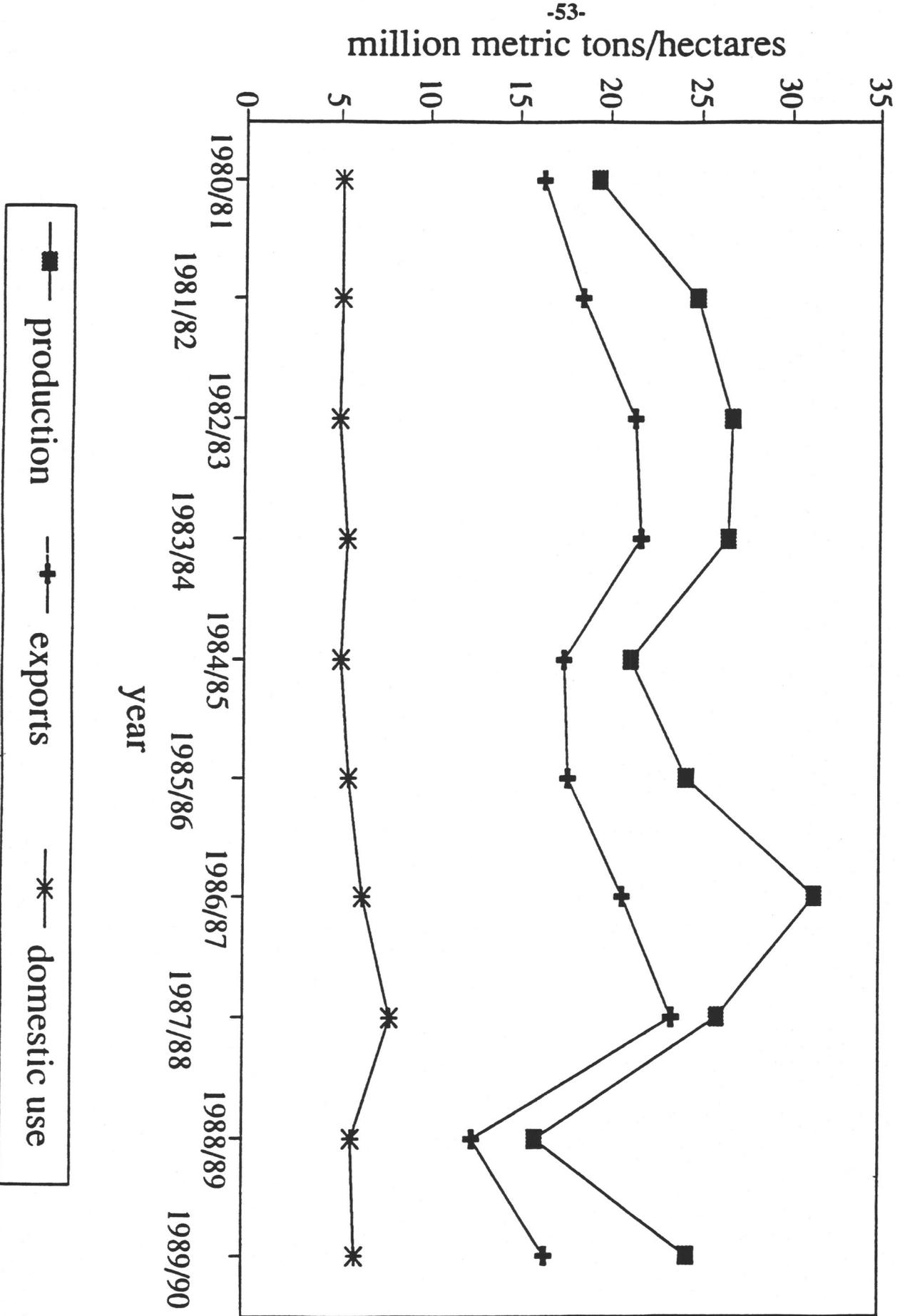


Table 1: Area of Principal Grains in the Western Canadian Provinces

Year	Wheat 000 ha's	Yields mt/ha
1965	10,972	1.54
1966	11,432	1.86
1967	11,489	1.32
1968	10,792	1.48
1969	8,665	1.80
1970	3,649	1.74
1971	6,772	1.84
1972	7,190	1.67
1973	8,450	1.69
1974	7,581	1.47
1975	7,778	1.80
1976	9,584	2.08
1977	9,102	1.94
1978	8,918	1.99
1979	9,144	1.59
1980	9,622	1.70
1981	10,471	2.00
1982	10,914	2.12
1983	12,012	1.91
1984	11,222	1.62
1985	11,712	1.80
1986	12,048	2.18
1987	11,028	1.91
1988	10,337	1.23
1989	10,661	1.78

Source: Economic Research Service, Trade Tapes, USDA.

**Table 2:
Grain, Oilseed and Products that Qualify for Statutory Freight Rates from Western Canada**

<u>Commodity</u>	<u>Commodity</u>
Alfalfa Meal, Pellets or Cubes dehydrated	Meal, Corn
Barley	Meal, Linseed
Barley, Crushed	Meal, Oat
Barley, Pearl	Meal, Rapeseed or Canola
Barley Sprouts	Meal, Oil Cake, Linseed
Beans (except soybeans) including faba beans, splits and screenings	Meal, Oil Cake, Rapeseed or Canola
Bean (except soybeans) derivatives (flour, protein, isolates, fibre)	Meal, Oil Cake, Sunflower Seed
Bran	Meal, Rye
Breakfast Foods or Cereals (uncooked) in bags, barrels or cases. Manufactured from commodities only as specified in this schedule.	Meal, Wheat
Buckwheat	Middlings
Canary Seed	Millfeed
Corn, Cracked	Mustard Seed
Corn (not popcorn)	Oats
Feed, Animal or Poultry (not medicated or condimental), containing not more than forty-five percent of ingredients other than commodities specified in this Schedule, in bags or barrels or in bulk	Oats, Crushed
Flour, made from grain or malt in bags or barrel, or bulk	Oats, Rolled
Grain, Feed, in sacks	Oil Cake, Linseed
Groats	Oil Cake, Rapeseed or Canola
Hulls, oat	Oil Cake, Sunflower Seed
Lentils, including splits and Screenings	Oil, Linseed
Malt (made from grain only)	Oil, Rapeseed or Canola
	Oil, Sunflower Seed
	Peas, including splits, and Screenings
	Pea derivatives
	Rapeseed or Canola
	Rye
	Screenings or Screenings Pellets
	Seed in Sacks
	Shorts
	Sunflower Seed
	Triticale
	Wheat
	Wheat Germ, Rolled Wheat

Table 3: Object and Powers of the Canadian Wheat Board

Object	5. The Board is incorporated with the object of marketing in an orderly manner, in interprovincial and export trade, grain grown in Canada, R.S.,c. C-12.s.4.
Powers	6. The Board possesses the following powers: <ul style="list-style-type: none">(a) to buy, take delivery of, store, transfer, sell, ship or otherwise dispose of grain;(b) to enter into contracts or agreements for the purchase, sale, handling, storage, transportation, disposition of insurance of grain;(c) subject to the approval of the Minister of Finance, to enter into commercial banking arrangements and to borrow money by any means, including the issuing, reissuing, selling and pledging of bonds, debentures, notes and other evidences of the Board;(c1) subject to the approval of the Minister of Finance, to invest moneys of the Board in bonds, debentures, notes or other evidences of indebtedness of or guaranteed by<ul style="list-style-type: none">(i) the Government of Canada or of any province of Canada,(ii) the government of a foreign country or of any province or state thereof, or(iii) a financial institution whether in or outside Canada;(d) to acquire, hold and dispose of real and personal property, by the Board shall not acquire or dispose of any real property without the approval of the Governor in Council;(e) to employ such technical, professional or other officers, clerks or employees as may be necessary for the conduct of its business;(f) to establish branches or employ agents in Canada or elsewhere;(g) to establish, utilize and employ such marketing agencies or facilities as it deems necessary for the purpose of its operations under this Act;(h) to operate elevators, either directly or by means of agents, commissions, storage and other charges, remuneration or compensation as may be agreed on with the approval of the Canadian Grain Commission;(i) to authorize any officer or employee of the Board or any other person to act on behalf of the Board in the conduct of its operations under this Act;(j) to act as agent for or on behalf of any minister or agent of Her Majesty in right of Canada in respect of any operations that it may be directed to carry out by the Governor in Council; and(k) generally to do all such acts and things as may be necessary or incidental to carrying on its operations under this Act. R.S.,c.C-12,s.4; 1970-71-72,c7,s.103; 1988, c.47.s.2.

Table 4: Long-term trade agreements involving wheat in force on June 30, 1987

<u>Exporters</u>	<u>Importers</u>	<u>Signed/ announced</u>	<u>Supply period</u>	<u>Quantity</u>
Argentina	Brazil	7/24/86	1987-91	1987--1.375 million tons of wheat 1988--1.450 million tons of wheat 1989--1.550 million tons of wheat 1990--1.700 million tons of wheat 1991--2.000 million tons of wheat
	Brazil	6/23/87	Extended to 1993	1992--2.0 million tons of wheat 1993--2.0 million tons of wheat
	Peru	2/27/85	1/86-12/89	700,000 tons of wheat annually
	Soviet Union	10/16/86	1/86-12/90	4.5 million tons of grain annually
Australia	Abu Dhabi	4/24/85	1/85-12/87	Minimum of 70,000 tons of wheat annually
	Egypt	10/15/84	1/85-12/89	Minimum of 10 million tons of grain, with minimum of 1.5 million tons of wheat in any year
	Iraq	11/30/85	1/86-12/90	6 million tons of wheat over 5 years; minimum of 0.8 million tons in any year
	Japan	3/19/87	1/87-12/87	900,000 tons of wheat
	Yemen	1/19/87	1/87-12/87	400,000-600,000 tons of wheat
	Canada	Bangladesh	7/1/85	1985-87
Brazil		1/28/86	1/86-12/88	4.5 million tons of wheat; 0.7-1.5 million tons annually
Canada	Egypt	4/23/85	1985-89	Minimum of 2.5 million tons of wheat over a 5-year period
	Egypt	1/15/86	1/86-12/88	Ontario Wheat Producers agreed to supply 0.75 million tons of wheat over 3 years
	Iraq	3/13/86	1/86-12/90	Minimum of 0.5-0.6 million tons of wheat or barley in 1986 and 0.7- 0.8 million tons in each of the 4 remaining years

continued...

Table 4: Long-term trade agreements involving wheat in force on June 30, 1987 (cont.)				
<u>Exporters</u>	<u>Importers</u>	<u>Signed/ announced</u>	<u>Supply period</u>	<u>Quantity</u>
	Japan	11/20/86	1/87-12/87	1.2 million tons of wheat and 850,000 tons of barley
	Soviet Union	10/2/86	8/86-7/91	Minimum of 25 million tons of wheat and feed grains over 5 years
Turkey	Soviet Union	3/12/85	1986-90	100,000 tons of grain in 1986, rising to 1.5 million tons by 1990
United States	Soviet Union	7/28/83	10/83-9/88	Annually, 8 million tons of wheat and corn in about equal quantities, plus 1 million tons of wheat or corn with option of 0.5 million tons of soybeans or soymeal equivalent to 1 million tons of grain. May purchase combined total of 3 million tons additional wheat or corn without prior notice
Uruguay	Taiwan	1/31/85	1985-90	420,000 tons of wheat, 70,000 tons annually (also contains corn, sorghum, and soybean provisions)

SOURCE: IWC, 1987b, pp. 46-47

Table 5: Quantity of Canadian Wheat Exports by Destination (Q in 000 metric tonnes)

<u>Market Type</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Large Markets								
China	2668.40	3105.40	3457.50	4687.30	3070.50	2268.90	2232.80	5868.20
USSR	4456.80	3876.30	6164.50	6389.70	8150.70	6082.70	4371.70	3810.70
Japan	1249.80	1307.90	1219.30	1460.70	1533.90	1170.40	1361.60	1464.20
Total	8375.00	8289.60	10841.30	12537.70	12755.10	9522.00	7966.10	11143.10
% of Total	49.97	53.58	56.45	57.49	60.48	56.07	49.92	50.33
Intermediate Markets								
Cuba								
S. Korea	726.60	695.20	565.30	965.60	669.70	712.70	1042.70	1105.50
Brazil	0.00	0.00	0.00	0.00	6.50	76.90	692.50	1487.70
Algeria	1768.80	1053.80	1215.30	1501.80	1543.70	847.30	846.70	831.10
Iran	770.10	620.00	716.00	541.20	699.40	577.70	342.50	669.10
Iraq	155.10	43.30	73.20	415.30	55.90	26.15	129.12	664.20
Total	455.40	167.80	383.10	409.50	492.20	231.00	519.80	745.50
% of Total	3876.00	2580.10	2952.90	3833.40	3467.40	2471.75	3573.32	5503.10
	23.13	16.68	15.38	17.58	16.44	14.55	22.39	24.86
Smaller Markets								
U.K.	1229.00	1387.10	1160.80	1024.80	720.10	746.60	486.70	442.90
Italy	629.20	639.60	656.50	661.40	428.20	243.30	558.60	521.70
Bangladesh	182.50	157.80	314.60	348.80	302.10	264.70	323.50	417.10
U.S.	3.00	0.90	64.00	57.90	111.30	295.20	250.60	447.30
Venezuela	0.10	0.28	77.30	0.02	116.30	478.40	118.20	350.80
Total	2043.80	2185.68	2273.20	2092.92	1678.00	2028.20	1737.60	2179.80
% of Total	12.19	14.13	11.84	9.60	7.96	11.94	10.89	9.85
Small & Intermittent Markets Total								
Markets Total	2464.90	2416.32	3137.10	3344.08	3190.80	2960.75	2679.98	3313.70
% of Total	14.71	15.62	16.34	15.33	15.13	17.43	16.80	14.97
WORLD TOTAL	16759.70	15471.70	19204.50	21808.10	21091.30	16982.70	15957.00	22139.70

SOURCE: U.N. Data Trade Tapes, 1989.

Table 6: Value of Canadian Wheat Exports by Destination (Value in 000 \$US)

<u>Market Type</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Large Markets								
China	451.00	573.60	596.80	743.90	464.80	326.30	254.40	509.70
USSR	878.40	793.90	1146.80	1189.70	1480.80	1068.40	545.00	479.20
Japan	259.20	296.10	235.40	275.50	289.80	206.50	223.00	207.80
Total	1588.60	1663.60	1979.00	2209.10	2235.40	1601.20	1022.40	1196.70
% of Total	48.94	53.48	56.9	58.59	61.31	57.87	50.09	49.19
Intermediate Markets								
Cuba	133.70	134.80	100.80	166.80	123.40	126.30	154.00	136.00
S. Korea	0.00	0.00	0.00	0.00	1.20	7.30	57.90	115.60
Brazil	345.30	202.50	209.90	263.80	261.00	137.90	104.10	101.70
Algeria	189.40	136.50	127.10	107.40	131.50	97.60	52.30	95.60
Iran	25.60	7.20	11.50	61.90	7.60	2.90	12.00	81.80
Iraq	96.00	35.50	72.50	72.60	85.90	35.90	66.70	78.70
Total	790.00	516.50	521.80	672.50	610.60	407.90	447.00	609.40
% of Total	24.34	16.61	15.03	17.83	16.75	14.74	21.90	25.05
Smaller Markets								
U.K.	243.40	294.90	218.40	192.10	134.80	133.00	82.30	61.60
Italy	129.10	128.00	118.40	110.90	73.90	37.90	66.30	58.30
Bangladesh	33.80	31.90	58.90	62.70	46.30	41.90	39.60	51.80
U.S.	0.71	0.19	7.00	6.30	16.30	40.70	24.80	44.30
Venezuela	0.03	0.14	13.70	0.01	19.70	70.80	16.20	43.40
Total	407.05	455.13	416.40	372.01	290.50	324.30	229.20	259.40
% of Total	12.54	14.63	11.99	9.87	7.97	11.72	11.23	10.66
Small & Intermittent Markets Total	460.36	475.27	555.50	517.09	509.70	433.30	342.40	367.50
	14.18	15.28	16.00	13.71	13.98	15.66	16.78	15.10
WORLD TOTAL	3246	3110.5	3472.7	3770.7	3646.2	2766.7	2041	2433

SOURCE: U.N. Data Trade Tapes, 1989.

Table 7: Unit Value of Canadian Wheat Exports by Destination (\$US/mt)

<u>Market Type</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Large Markets								
China	169.0	184.7	172.6	158.7	151.4	143.8	113.9	86.9
USSR	197.1	204.8	186.0	186.2	181.7	175.6	124.7	125.8
Japan	207.4	226.4	193.1	188.6	188.9	176.4	163.8	141.9
average of large	191.2	205.3	183.9	177.8	174.0	165.3	134.1	118.2
Intermediate Markets								
Cuba	184.0	193.9	178.3	172.7	184.3	177.2	147.7	123.0
S. Korea	0.0	0.0	0.0	0.0	184.6	94.9	83.6	77.7
Brazil	195.2	192.2	172.7	175.7	169.1	162.8	122.9	122.4
Algeria	245.9	220.2	177.5	198.4	188.0	168.9	152.7	142.9
Iran	165.1	166.3	157.1	149.0	136.0	110.9	92.9	123.2
Iraq	210.8	211.6	189.2	177.3	174.5	155.4	179.9	105.6
average of inter.	200.2	196.8	175.0	174.6	172.7	145.0	130.0	115.8
Smaller Markets								
U.K.	198.0	212.6	188.1	187.5	187.2	178.1	169.1	139.1
Italy	205.2	200.1	180.4	167.7	171.4	155.8	118.7	111.8
Bangladsh	185.2	202.2	187.2	179.8	153.3	158.3	122.4	124.2
U.S.	237.7	212.4	109.4	108.8	146.5	137.9	99.0	99.0
Venezuela*	310.7	505.4	177.2	333.3	169.4	148.0	137.1	123.7
average of smaller	206.5	206.8	166.3	160.9	164.6	157.5	127.3	118.5
Small & Intermittent Markets Total								
	186.8	196.7	177.1	154.6	159.7	146.3	127.8	110.9
WORLD AVERAGE	199.0	201.8	174.5	169.6	169.7	153.0	129.9	116.7

SOURCE: Simple average estimated from quantity and value by Calendar years, U.N. Trade Data System.

* There is an apparent error in the unit value measure for Venezuela that cannot be accounted for. It is not included in the calculation of world average and smaller market average unit value.

CHAPTER 5: The European Community

ABBREVIATIONS

CAP	Common Agricultural Policy
COPA	Committee of Professional Agricultural Organizations
DG-VI	Directorate General For Agriculture
EAGGF	European Agriculture Guidance And Guarantee Fund
EC	European Community
ECU	European Currency Unit
EEC	European Economic Community
ECOSOC	Economic And Social Committee
EEP	Export Enhancement Program
GATT	General Agreement On Tariffs And Trade
GDP	Gross Domestic Product
MCA	Monetary Compensatory Amount

THE EUROPEAN COMMUNITY

Fred A. Mangum, Jr.

INTRODUCTION

In its formative period in the late 1950s, the European Economic Community's (EC) agricultural policy was dominated by memories of food shortages during the recently passed war years, the economic well-being of a major population segment, and farm life that was closely interwoven into the social and cultural value system of the Continent. The major policy goals sought were a fair standard of living for the agricultural community, stabilized markets and an assured food supply for consumers.

In this setting it was easy for policy makers to obtain public agreement that relatively favorable price supports for farm commodities was a proper instrument with which to seek farm income support. And the system worked well as long as Europe was a food deficit region with import levies generating a large portion of needed revenues. But the response of European farmers to an environment of reduced risk and very favorable input/output price ratios was not foreseen and within a period of two decades, Europe changed from a food importer to a food exporter, albeit at prices that were not competitive on world markets. Now, rather than generating revenues, the Common Agricultural Policy (CAP) was running large deficits, highlighting the conflict between objectives that sought to attain both farmer and consumer interests.

The period between 1962 when the first common policies were implemented---for cereals in the original six countries---to the present when more than 90 percent of agricultural production from a Community now expanded to twelve countries is covered, provides useful insights into the role of policies in stimulating food production and the interaction of farm and trade policies in shaping economic and political relation-

ships among member countries and with third countries. The objectives of this chapter are to review these developments and to focus on the role of state trading in managing EC external agricultural trade.

THE EUROPEAN COMMUNITY AS A STATE TRADING INSTITUTION

Agricultural Situation And Development

In the late 1950s, 17.5 million farm workers (six countries) farmed 65 million hectares to feed 150 million people. By 1988, 5.2 million farm workers in the same six countries on approximately the same land area produced food for a population of 200 million plus sharply higher farm exports (In actuality, the expansion by 1988 to twelve member states has resulted in a work force of 8.3 million farming 129 million hectares producing for a population of 324.8 million). Despite the difficulty of making comparisons with the enlargement of the Community, it is evident that agricultural productivity increases in three decades under the CAP have been exceptional.

The point is illustrated in Appendix Table 1 showing changes in output of grains in the EC-12 from 1980 through 1988. Land area in grain production is little changed, decreasing by less than one percent per year. Yields however, have averaged a 2.5 percent increase each year responding to use of improved seed varieties, purchased inputs, improved management, and more intensive practices. The result is an increase of 13 percent in total cereals output over the eight-year period from a smaller land area. Wheat production exhibits a similar trend with yields rising an average 3.4 percent per year and surface area declining at about the same rate as

total cereals production. Other Community crops follow the same pattern.

Domestic consumption, especially of wheat, has not increased on a parallel with production (Appendix Table 2). Total grain use for human consumption has remained virtually static over the eight-year period. Human consumption of wheat, both common and durum, has declined on a per capita basis and in aggregate has remained about the same. It would appear that the CAP objective of meeting human consumption needs has been well achieved.

Total domestic use of wheat is up sharply as price relationships between wheat and other feedstuffs have encouraged increased use of wheat for livestock feeding. Although wheat used for animal feed increased 48 percent over the seven years, total cereals used as animal feed actually fell as the use of cereal substitutes has increased. Wheat for feed use peaked at 23.4 mmt in 1986/87 and declined to about 21 mmt by 1989/90. Maize has declined in use as a livestock feed in part because of larger quantities of imported corn gluten feed and tapioca.

Rapidly rising production combined with declining domestic use of cereals during the mid 1980s resulted in stock accumulation and larger exports. Both have been problems for the CAP; carrying stocks and export refunds have been large budget drains and have caused dissention among member states. Larger quantities of cereal exports and internal pressures to limit imports of grain substitutes have contributed to friction with third countries.

Intervention stocks of total cereals and wheat rose steadily until crop year 1985/86 (Appendix Table 3). Lower quality wheat was a special problem as stocks mounted and budget expenditures climbed. The seriousness of the budget issue forced effective changes in production incentives. Moreover, recent relatively high quality crops (more wheat met the intervention criteria for bread-making) along with increased exports have reduced stocks of feed wheat and

since 1985/86, halved intervention stocks of all cereals. Future stocks will be largely determined by the relative impact of measures to control production and the tendency of producers to substitute higher yielding cereals (maize and common wheat) for lower yielding oilseeds and protein crops.

The pattern of export trade also changed dramatically during the 1980s, (Appendix Table 4). Exports of common wheat from the EC-10 countries to external trading partners more than doubled in the two year period 1979-1981. External exports increased another 13 percent in the next two years and have remained around the 11 million metric ton level since. During the 1980s approximately 80 percent of external exports were concentrated in ten markets. The Soviet Union, Poland and North African countries have been the more consistent larger markets.

Background, Objectives and Functions

Agriculture has traditionally had a special place in much of western Europe, both in terms of its contributions to the economy and to the social structure. Because of this European agriculture has a long history of protectionism. Therefore, it was natural that when the original six member states began the unification of western Europe in 1957 with the signing of The Treaty of Rome, agricultural policy would occupy a central role.

Article 39 of The Treaty of Rome created the Common Agricultural Policy with five specific objectives: (1) to increase agricultural productivity by promoting technical progress and ensuring the rational development of agricultural production and the optimum utilization of the factors of production, (2) to insure a fair standard of living for the agricultural population, (3) to stabilize agricultural markets, (4) to guarantee regular supplies of food to consumers, and (5) to ensure reasonable prices of food to consumers.

The CAP is founded on three principals: (1) market unity, (2) community preference and (3) common financial responsibility. The "single market" means trade in agricultural products should encounter no more obstacles within the Community as a whole than it would within an individual member state. The aim is a single large internal market in which countries are prohibited from charging customs duties, raising other barriers to trade or granting subsidies which could distort competition. To be a single market requires central management by the Community with uniform rules applied at the Community's frontiers.

Community preference is the principal whereby priority is given to the sale of Community produce within the internal market. Since Community prices are higher than those on the world market, the CAP protects the internal market against imports through the application of the variable levy and tariffs on imports. To promote export competitiveness, the CAP grants export refunds on products exported from the Community.

Common financial responsibility has two elements: one, the costs of operating the CAP are shared among all member states and two, the revenue produced by the operation of the CAP becomes the Community's resources rather than reverting to the member states. The concept of financial solidarity gave rise to the European Agriculture Guidance and Guarantee Fund (EAGGF) with two parts: the "guarantee" section, which finances all CAP expenditures for market organization and price support, and the "guidance" section which finances structural changes. The key point is that the responsibility for funding the CAP operations is shared among all the member states.

The basic aim of the CAP is to provide efficient farmers with an income comparable with their industrial counterparts while ensuring that consumers receive adequate supplies of food at reasonable prices. However, at the 1958

Stresa Conference it was recognized that European agriculture had higher production costs than in other producing countries and if common prices were to provide adequate earnings, they must be above world prices. Thus, the origin of the CAP lies in the failure of the six original member states to accept a free trade system for agriculture parallel to that set up for other sectors.

Because of the concern about farm income support, the six member states agreed on the general application of common market participation and a series of special rules for agriculture. While Article 39 of the Treaty of Rome established the groundwork for free trade and competition within the six countries, these general rules on free trade were waived or altered by the application of Articles 38 through 47. These articles define the commodities to be covered by the common policy, set out the broad terms through which harmonization of national policies is to be achieved, and provide authority and justification for a common market support system. In theory the EC has a wide mandate to regulate trade within the Community or with third countries. In practice the Community is often constrained by differing political views among the member governments.

Once the objectives and basic principals of the CAP were defined, the necessary market structures were set up. These may be regarded as falling into four different categories, all involving a system of external protection but with different market support mechanisms. (1) External protection and price intervention applies to over 70 percent of agricultural production including cereals, sugar, milk, beef and veal, pig meat, certain fruits and vegetables, table wines, and fishery products. The aim is to prevent market prices in the Community from falling below minimum levels. (2) External protection without intervention covers about 25 percent of production including eggs and poultry, quality wines, flowers, and many types of fruits and vegetables. (3) Aid to complement prices for

products that must do without any external protection because of the Community's agreements within GATT. This covers producers of protein plants, oilseeds, tobacco, and olive oil. These receive higher prices than competing imports would permit because processing industries receive a subsidy if they use Community grown products. The objective is to bridge the gap between the Community price set by the Council and the price of competing imports. (4) Flat rate aids are paid by the hectare or quantity produced for highly specialized products. Growers of flax, hemp, hops, silkworms, seeds, and durum wheat (combined with other aids) include less than one percent of total Community production but are of great importance in some areas.

The market organization for wheat introduced in 1962, although revised over the years, serves to illustrate the functioning of the Community's system. The wheat market is based on the three main features common to most of the Community's market organizations: (1) prices fixed each year by the Council (target, threshold, and intervention prices); (2) external trade based on a protection mechanism whose major feature is a variable levy on imports and (3) internal market support based on buying in by intervention agencies. Prices are also supported by sales to third countries via the use of export refunds equal to the difference in prices inside the Community and prices prevailing on the external market. The key element is the target price (name varies for some commodities). This price is fixed at the beginning of the year and is the price farmers should receive so that adequate income can be provided through the market, plus transport cost from the most deficit grains producing region.

The intervention price is the market floor price at which intervention agencies must buy all wheat offered to them in a specific time period, provided it meets the required minimum quality standard. This price is lower than the target price by the cost of transport between the most

important surplus area (Ormes, France) and the Community zone most in deficit (Duisburg, Germany).

The threshold price is derived from the target price and is less by the cost of transporting cereals from the main port (Rotterdam) to Duisburg. It is fixed so that cereals imported from non-member countries cannot be offered in the major area of consumption at a price below the target price.

Imports from third countries are levied with a tax equal to the difference between the threshold price and the lowest import price (in Rotterdam) plus transport and handling costs. The levy is adjusted daily (weekly for some commodities) to insure that lower priced imports do not enter the Community at less than the threshold price.

To maintain the level of market prices within the Community, excess commodities may be sold into the world market with the aid of export refunds (or restitutions). Refunds are usually adjusted weekly and are equal to the difference between EC internal market prices and prices prevailing on world markets.

As mentioned above, the CAP has often been changed and updated to meet new conditions. The most important forces for change have been the expansion of member countries from the original six to the present twelve, the increased productivity of agriculture that has resulted in output beyond the requirements of domestic consumers, and the large budget pressures accompanying the above two events. Adding to these three existing forces is the expected change during 1992 when the enlarged Community is supposed to be free of internal trade restraints. The expansion in number of members has had the advantage of enlarging the consumer base and has permitted more specialization because of greater diversity in producing conditions. Both are important for a successful customs union. The disadvantage of adding new members has been the increased difficulty in reaching

agreement on budgets and appropriate policies. Differences between Mediterranean and northern countries in income levels, production efficiency, budgetary contributions, and commodity types have all heightened the contentiousness of debate.

The CAP has created conditions for agricultural expansion far greater than foreseen by its originators. For this and other reasons, attempts at reform go back at least to the Mansholt Plan of 1968. Most such attempts have been in response to rapidly rising budgetary outlays for agriculture. But only since 1984, beginning with milk quotas, has the Commission openly recognized the existence of surpluses and taken meaningful steps to restore market equilibrium.

A more restrictive price policy and production restraints have been instituted to reduce the rate of output expansion. For wheat, the Council lowered nominal prices in 1984/85 for the first time, and institutional prices remained frozen or slightly lowered for the next few years. Perhaps most important, a guarantee threshold was set for cereals, including wheat, that limited the quantity eligible for price support. The Council agreement of 1986/87 added a co-responsibility levy for cereals. The levy is a flat rate decided annually by the Council and applies to all grain sold. Other output restricting measures include voluntary land set-asides, more emphasis on quality by tightening standards, and greater budgetary discipline, especially on Guarantee Section expenditures now in place. All of these recently enacted measures serve to place more responsibility on the producer for over-production. These and other measures should at least slow the rate of expansion and reduce pressure on the Community's budget.

Organization and General Operating Characteristics

The EC is a partnership of twelve countries each with its own national government and

economic and political objectives. Because it is a partnership, the Community is not a federalized entity subordinating the member states. Rather, most legislative processes function through an elaborate committee structure involving several levels of decision making.

At the apex of the political structure is the European Parliament, composed of 518 members elected directly by voters in the member states. Through its fifteen committees the Parliament reviews and gives opinions on recommendations made by the Commission to the Council. The Parliament oversees the work of the Commission which is politically responsible to it. This body also has the final word in establishing the Community budget (other than for the Guidance and Guarantee Fund).

The Council of Ministers consists of representatives of the twelve national governments and is the most influential body for agricultural decision making. It makes decisions on proposals from the Commission after receiving the opinions of the Economic and Social Committee (ECOSOC) and the Parliament. The Presidency of the Council is rotated each six months among the member states. The Council has the final decision on new policy proposals and it is through this body that the member states exercise a degree of control over the running of the Community and its policies.

The Commission is made up of seventeen members each appointed for four years by mutual agreement among national governments. The members of the Commission perform their duties in complete independence, both of national governments and of the Council. The Commission is responsible for the day-to-day management of policies, including the CAP, and maintains a civil service staff for this purpose. It is assisted by the Management and Advisory Committees (sometimes called consultative committees).

The ECOSOC is composed of 156 members representing employers, trade unions, and independents. It has no direct power but, theoretically, no new legislation can be approved by the Council until it has been reviewed by this Committee.

The Court of Justice is the highest legal authority for resolving disputes concerning the interpretation of the treaties and legislation. The Court consists of ten judges assisted by four advocates-general. On the basis of complaints filed by the Commission, the Court examines whether member states are complying with treaty provisions. Member states and individuals may also apply to the court if they question a Commission or Council ruling.

The day-to-day management of the CAP is carried out by the Commission relying heavily upon the advice of management committees. These committees exist for all of the major commodities and usually meet weekly. The Cereals Management Committee is composed of a maximum of two representatives from each member state plus Commission members. The Management Committee for Cereals will fix the level of export refunds and aids as well as decide upon the technical details of Council decisions. In practice, the Management Committee never rejects a Commission recommendation. It does provide an early warning of the opinions of the member government representatives and strong adverse views may cause the Commission to revise a draft regulation. Import levies are fixed by the Commission.

Normally, policy proposals originate in the Commission although the instigation may be from a number of sources: the Council, the Management Committee, the Advisory Committee, or any of the trade and professional organizations in the member states. The Commission will do the research for the policy change and prepare a draft regulation. This document is submitted to the Management Committee for review and comment. Negotiations are simulta-

neously underway on a broad front: professional organizations (such as COPA) and processor, distributor and consumer groups are consulted, the opinion of the Economic and Social Committee is sought, member governments are consulted, informal discussions are held in the Council and increasingly, the European Court of Auditors has a voice because of the importance of budgetary impacts. For important commodities like wheat, the preparatory materials are circulated as high as the Director General's Office both to inform and to receive political input. None of these opinions are binding on the Commission but they are taken into account while maintaining complete freedom to make decisions. Importantly, however, at the point of completing the draft resolution a consensus has most often been reached and the formal decision making is automatic. Debate on annual proposals for setting target prices, intervention levels and so forth, tend to be more lengthy and involved, especially in recent years of budget restraint.

The key role of the Commission in this process is underscored by recognizing that the Council (except in a few cases) can act only on a proposal from the Commission. The Council cannot initiate policy so without a proposal from the Commission, its hands are tied. Moreover, the Council may reject a Commission proposal by majority decision. In practice, a Commission proposal is almost never rejected because of the consensus building process undergone.

When a Commission proposal reaches the Council, preparations are made for debate and compromise among the member states. The outcome of these discussions is most commonly a Council directive or regulation. A directive is a kind of framework law within which member states are expected to adapt their own legislation to conform with a Community objective. These instruments are usually associated with structural policy. Regulations override national law and are legally binding on every citizen of the Community. On completion of its negotiations the Council's position is forwarded to the Parlia-

ment. After this body's review and publication in the official journal, the measure becomes Community law.

Links to Farm and Trade Programs of the Member States

When EC grains policy was initiated in 1962 the objective was to have a common set of rules for the internal markets of the six countries within five years, as well as rules governing all external trade with third countries. Other than removing all national trade barriers between the six countries, and establishing the level of common prices, national farm and trade programs remained largely intact. However, the CAP has clearly assumed responsibility for all price supports and international trade measures.

National contributions as a share of total budget support for Community agriculture have always greatly exceeded the share provided by the Community (EAGGF-Guarantee and Guidance) [6]. However, national expenditures have been declining as a proportion of total aid.

In almost all member states contributions to social security schemes account for the majority of national farm spending. Other items of importance in national farm expenditures include structural improvement, processing and marketing, rural development, and research and advisory services. Member states also give farmers a variety of tax concessions related to agriculture.

The need for agricultural income support and political pressure on national governments to increase their efforts in this area has been a problem for the Community since its beginning. Income support aids are incompatible with provisions 92 to 94 of the Treaty of Rome and are prohibited. But some governments have responded to pressure and developed these initiatives anyway, leading to production distortions and hampered efforts to stabilize markets. As a result, the Commission proposed a "framework for national aids" that provides a strict

definition for permissible assistance to avoid inconsistencies between national schemes and Community objectives, particularly in restoring sound market conditions.

While these national aids have an impact on wheat production, they are more generally directed at overall agricultural improvement. Important for wheat, the national governments have the responsibility for all control and customs operations. In the same manner some of the newer reform measures aimed at reducing over supply such as the land set aside, early retirement of farmers and diversification of production programs are implemented by member government ministries using CAP funds.

Individual member states have less influence over trade policy than agricultural policy. A first result of the Treaty of Rome was to eliminate barriers among the member states. Now, other than occasional disputes between quarantine services or border inspectors that temporarily disrupt trade within the Community, there is little national effort that affects intra-EC trade. Member states do have some impact on trade with third countries that is often not consistent with the intent of common policy: (1) states may issue tenders in special circumstances where the producing area is far from a port, (2) some states, particularly France, in the recent past have signed long term grains agreements with importing countries although the Commission itself does not, (3) member states often have their own food aid programs recognized and often coordinated through the Commission, and (4) currency fluctuations distort competition among the states and may give one country an advantage over others in the tendering process.

The Community continues to make adjustments to move toward a stronger, more cohesive policy. Economic change and political pressure, however, continue to provide incentives for member states to act alone. Complete harmonization by the end of 1992 is expected to further reduce member states individual efforts.

Wheat Trade Flows

The increased productivity of western European agriculture has resulted in a dramatic change in agricultural trade within the Community since its inception. The Common Market has become larger by doubling the number of member countries and roughly doubling its population. As a result, trade in wheat within the Community has also doubled from 1980 to 1987. Even so, the Community has been able to shift from a net importer of wheat to a net exporter over the past two decades.

Exports of common wheat from the EC-10 grew from 5.9 million tons in 1979-80 to 11.5 million in 1987-88, an average increase of 13.5 percent per year, (Appendix Table 4). Most of this increase came in the early 1980s. Policy changes imposed by budget requirements and trade frictions with other countries combined to moderate the export expansion in recent years.

There have also been shifts in the direction of trade flows. In recent years the USSR and eastern European countries have become more important markets for the Community with more irregular shipments to Northern African countries. China has also become a frequent customer, as has Spain since its inclusion in the EC.

As wheat exports were rising, imports of common wheat into the EC-10 have continued a slow decline from 3.7 million metric tons in 1979 to a low of 1.8 million metric tons in 1988 [4].¹ The major wheat sources have been the United States and Canada, both supplying harder, bread-making quality wheats to the Community. More recently import sources have shifted away from these traditional suppliers to new sources dictated by trade arrangements. In particular, Spain since its accession to EC membership and Saudia Arabia, probably to settle oil import balances, have become new sources for wheat imports. In addition to substantial declines in

U.S. shipments, Australia and Argentina have been major losers in the EC market.

The combination of rising external exports and declining imports into the EC-10 resulted in a sharply higher wheat trade surplus over the decade of the 1980s (Appendix Table 6). The external trade surplus for common wheat rose from less than one million tons in 1979 to 9.6 million in 1983 and has remained around this level through 1988. The EC shifted from being a net importer of common wheat in the early 1970s to a net exporter position. Net exports rose fairly steadily through 1983 and have remained at this level even with policy changes to lower output and increase domestic feeding.

EC export prices vary among markets by transport cost, by EC country of origin, and the Community's export refund. In principle, the export refund is calculated to align the EC f.o.b. price to the f.o.b. price of the main competitor. The weekly tender system used by the Grains Management Committee to set the export refund attempts to cover the difference between the f.o.b. world price (usually defined as the U.S. price) and the EC f.o.b. price. The calculation has become more complicated recently because of quality differences, increased British wheat production, and the U.S. Export Enhancement Program subsidies that obfuscate the market established price. The tender by the wheat traders propose a quantity and the amount of refund. The Commission decides the maximum refund which corresponds to a certain quantity to be exported.

A private trader in the EC can offer wheat in the world market and fix a contract price on the basis of the refund fixed by the Commission. The unit values that result in selected specific markets are estimated from U.N. trade data and presented in Appendix Table 7. Some indication of the differences in prices in the largest markets can be noted in the table.

OPERATING CHARACTERISTICS OF THE EC

The EC in International Trade

The transition from an agricultural deficit region to a surplus position has forced the strategy and management of the CAP to become increasingly involved in external relations. Initially, the CAP was inward looking, seeking to protect domestic farm income by reducing the flow of lower priced farm products into the Community. Now most agricultural products are in surplus and export outlets are considered to be an essential requirement to balance markets and to guide production adjustments.

The Community is the major world exporter of dairy products and beef, the second largest exporter of cereals and sugar, and a leading exporter of wines and processed products. Until very recently, these exported products, except for sugar, enjoyed the same price and disposal guarantees as products sold on the internal market. Moreover, the price gap between internal and world markets and the export risk remain entirely a charge on the Community budget. Producers for the most part are isolated from world price movements even though a growing share of output is exported.

This makes external marketing an expensive process. The major cost is the export refund which for cereals and rice in 1986 totalled ECU 1.8 million (52 percent) of an overall EAGGF guarantee expenditure on cereals and 3.5 million on rice [2]. The Community is now beginning to reassess mechanisms used in the past to make producers more accountable and to develop an export policy rather than the simple disposal of surpluses. This policy would be aimed at responsibly increasing agricultural exports by making producers assume more of the market risks, fixing support prices nearer to those of other exporting countries, and setting limits on quantities receiving export aids [3].

The Commission has considerable discretion in its management of cereal export policy. Its objectives are to dispose of surplus farm production without undercutting world price levels, and in recent years to reduce production as a way of reducing budget outlays. The major considerations in seeking these objectives are the Community's supply situation, budget pressures, and a desire to minimize price fluctuations on the domestic market and the world market.

Through its export restitution system, the EC directly influences the terms of sale on transaction for wheat sold externally. It also determines the quantity available. What began as a relatively simple system has been forced in recent years to add a variety of complicating measures to counter competitor offers and to close loopholes that grain traders exploit to obtain excess profits. The primary instrument used to bridge the gap between the relatively higher price on the internal market and the lower world market price, is the export refund.² Licenses are required for both import and export. The Commission entertains tenders from exporters for moving wheat into the export market. It does not, however, enter into contracting arrangements, leaving operational details to commercial grain traders.

The Commission intervenes in the domestic market when internal prices drop to intervention levels. In recent years up to 10 percent of crop production has gone into intervention in a given year. The intervention system establishes rules for purchases of wheat which is offered into intervention at the wholesale level. The intervention price is the floor price at which intervention agencies must buy in all wheat offered to them during specified periods of time, provided it meets the minimum quality standards. The intervention price is set annually by the Council of Agricultural Ministers at a common ECU level for all member states and is converted into national currencies at the green rate of exchange.

Monthly price increments apply each month during the marketing season to compensate for storage and to assure an efficient market flow. In recent years, reflecting excess supplies, the Commission has imposed some conditions on the use of intervention, restricting the period during which sales could be made into intervention, increasing quality standards, and introducing a lower buying in price set at 94 percent of the basic July price before monthly increments are included. Other measures to impose more market discipline on producers are being considered, including an already enacted cereals co-responsibility levy.

The export refund is set weekly by the Cereals Management Committee with the general objective of exporting a certain amount of wheat. In principle, it is calculated to align the EC f.o.b. price on the f.o.b. price of the main competitor. The Committee offers a specific refund for a fixed quantity which is either accepted by the commercial exporters or not. For example, if the world price (U.S. f.o.b. Gulf price) of soft red winter wheat is \$115/ton and the EC f.o.b. price at Rouen is \$200 (expressed in ECU) the EC refund would be \$85 or slightly less if the EC has a freight advantage. Complicating factors are the quality disadvantage of EC wheat and the increasing production of U.K. wheat, which is sometimes of lower quality than the French standard.

Normally a single refund is fixed in the tender for export out of free stocks for all destinations, which normally gives the EC an advantage for close, and a handicap for far, destinations. Importing countries are divided into eight zones (some countries such as Switzerland are not included in a zone) with much of the variation in export refunds due to differences in freight rates. However, it is also possible that a higher refund could be provided to a market of special importance such as the USSR or to a market where competition is intense such as a North African market also receiving EEP assistance from the U.S. Government.

When issued, the export license specifies a quantity and the amount of the refund. It can be bought, sold or traded among the commercial exporters. The trader that receives the tender award has to export to one of the countries, indicated by zones, in the tender opening regulation. The Commission only enforces the security deposit to ensure the fixed quantity is actually exported.

The Commission itself does not conclude any grain contracts but operates through a tendering system that functions in several ways. Under the basic tender system, commercial grain exporters request an export refund for a specific quantity of wheat. The Commission could receive as many as 50 requests in a given tendering period and must decide on the quantity to accept. Its decision would be influenced by the amount of wheat that could be moved onto world markets without undercutting prevailing prices. For exports out of the free stocks there is a security (15 ECU for wheat) linked to the export certificate. If the certificate is not used, the trader loses the security. Wheat to be exported from free stocks is purchased on the open market for shipment within a given time period.

A different tendering procedure is used to sell EC owned wheat from intervention stocks. In this case the Commission fixes the selling price near the world market level and absorbs the loss from a higher buying-in price. The successful exporters are issued export licenses, and in the case of exports out of intervention stocks, must post a security equal to the difference between the tendered price (world market) and the intervention price to ensure that the grain is exported. The Commission also reimburses the exporter for transport costs between the silo and the port of shipment. Most intervention stock is sold between May and August.

Export refunds may also be paid independently from tenders, so called "standing refunds". In this case the Commission sets a flat rate refund. Flat rate refunds are fixed to export grain to

close destinations, such as Switzerland, at a level below the refund fixed in the tender. Flat rate refunds are also fixed for processed products such as flour, malt and durum-semolina. Commercial traders may apply for the refund as long as it is available.

Tenders may also be issued in special circumstances for export out of the market of a specific member state. This occurs when, for instance, the logistical infrastructure of the concerned member state is not competitive and the general export tender is not sufficient to prevent intervention buying. The Commission manages the transaction and makes payment of the export refund. These tenders are exceptional since they are not compatible with the single market principle.

Other than storage costs and export refunds, the Commission at present provides little export assistance for the commercial grain trade. Several changes are being considered in light of world grain markets, competitor programs, and its own growing output. One important proposal would restrict price and disposal guarantees granted to a specified quantity with producers bearing the responsibility for larger quantities at world prices. Several possibilities being studied are concerned with shifting a major portion of export refund outlays from the Commission budget to producers and a change in the method of calculating refunds or eliminating them altogether for some commodities. The Community may also begin diversifying the use of export policy instruments, including the use of export credits, credit insurance to reduce exchange risks, and interest subsidies. Eventual use of any or all of these measures reflects increasing competition in world markets and the rising budget cost of disposing of Community surpluses.

Organization And Decision Processes To Achieve Stated Objectives

The EC international wheat objectives are: (1) to get rid of surpluses, (2) to avoid undercutting world price levels in the process, and (3) in the longer term to reduce production as a means of reducing surpluses. As noted earlier, international export objectives were not a consideration when the basic aims were to support farm income and to insure food security. Now export policy has come to be regarded as an integral part of the CAP necessary to manage surplus production.

Almost all policy decisions fit into a framework of achieving these objectives, beginning on the domestic side with the annual price negotiations in the Council of Ministers. When these protracted negotiations conclude, two basic decisions have been made: (1) the level at which the EC grain market will be supported, that is, the intervention price and (2) the price at which third country grain can be imported into the Community, the threshold price.

The first of these decisions is to a large extent determined by a balance of political and financial factors accompanied by intense lobbying. The second decision on threshold prices and other price decisions turns largely on the decision on intervention prices.

Once these annual institutional prices are set, exports are largely determined by weekly decisions made by the Cereals Management Committee. Surveys are made to determine the level of domestic prices fluctuating around the fixed intervention price. Though intended as a floor price, prices received by farmers may fall below buying-in prices because of costs of transport from farm to intervention centers, quality adjustments, and the delay which is imposed on payment for grain sold into intervention.

A Community balance sheet combined with a perspective of the global wheat market determines planned export quantities at the beginning of the market year. Plans may be altered if domestic prices fall to a level that causes intervention stocks to rise above the quantities desired by the Cereals Management Committee. This is accomplished by a Commission decision to fix the export refunds at a level to be competitive on the world market or alternatively, by requesting open tenders with an associated refund and then deciding the quantity to accept. In making this decision international grain markets are monitored daily with the export refund fixed once a week. The international price criterion used is the U.S. f.o.b. Gulf price for wheat. The difference between the U.S. price and the grain traders purchase price bought either from the open market or from intervention stocks determines the export refund required.

Internal Linkages And Programs

Since its beginning, evolution of the EC has been marked by sharp differences of opinion between the member states regarding the direction of policies. As a general rule, the CAP takes precedence over national policies regarding price support and international trade and increasingly stronger control is being applied in other areas.

In particular, the Guidance section of the EAGGF is primarily co-financed between the Commission and member states but administration of most structural measures falls to the states. Equally important on the guarantee side, member states are responsible for all control and compliance work utilizing their customs offices and inspectors. The Grains Section in the Commission only totals about 25 including support staff so its involvement in hands-on grain movement is limited. FEOGA does have auditors to oversee national administration but compliance, at least by default, is a responsibility of individual governments and frequently gives rise to sharp debate on border flow of commodities.

There is also a joint working group of Commission and member governments to reduce fraud in administering programs.

Member state's policies remain the primary instruments in other areas. They have widely different agricultural property taxation, income tax systems that are not comparable, different energy policies, labor regulations, credit programs, and agricultural research capabilities. These differences plus politically significant farmer lobbying groups in each member state make a truly common agricultural policy difficult to achieve.

Even in the areas of price support and trade policy, member governments are pressured politically to "sweeten" CAP benefits. This is a particular problem from the Commission's perspective because it has no direct way to influence a country when it desires to add an additional grant element. Thus, as infrequently happens, when a member state adds an additional export subsidy, it may be able to export while another state cannot. In the same way one state's farmers may receive an additional production subsidy when others do not. The Commission has tried recently to more effectively harmonize policies, but the attempt was rejected by the member states. Some refuse to give up additional export assistance while others wish to give none at all. Individual state assistance, particularly internal direct aids, will likely be one of the most difficult political decisions in the more complete harmonization expected in 1992.

External Linkages and Programs

The Commission would much prefer to establish trading rules and then allow the grain trade to perform all the functions associated with marketing. Superficially, this is the procedure followed but there are a variety of exceptions.

For wheat exports a commercial trader receives the difference between the lower sale price and

the higher internal price in the form of an export refund. Acceptance by the Commission of the exporter's tender based on its offered restitution determines the quantity of wheat marketed in a given time period. The Commission monitors daily delivered prices at ports and conducts a survey of prices on representative internal markets. The price results are used to estimate quantities going into intervention stocks and hence, the need to increase export quantities to relieve pressures. Larger export requirements would mean acceptance of a greater number of tenders with a wider spread of refund offers.

The Commission officially has no long term grains agreements with other countries. The Commission does have a number of multi-lateral agreements primarily with third world countries that provide preferential access to the EC market but no practical concessions for wheat. There are instances in the case of large, important customers such as the USSR, which takes one-third of the Community's wheat exports, where price concessions are granted. There also exists the possibility that individual member states may agree to supply a long time customer with a minimum amount of grain or may agree on special price considerations. By the same token, there may be a requirement that wheat be shipped on a member state's vessel or other similar terms of sale. Many such member variations exist and are either ignored by the Commission or accepted as normal business arrangements.

The EC has a viable food aid program that provides a further outlet for grain exports. The Food Aid Convention of 1986 commits the EC to supply as aid 1.67 million tons of grain annually. Part of this total is exported through the bilateral aid program of individual member states with the remainder coming from the Community. In either case, all food aid is 100 percent grant.

The market process for food aid is similar to commercial sales. Tenders are submitted by

exporters for a specific quantity of grain with delivery terms and port of export. The Commission then makes a decision on how many tenders to accept. Food aid grain may come from either intervention stocks or open market purchases. If food aid is a member state bilateral program, the state receives a refund equal to the commercial refund.

There are no concessional sales as such. The Community does have a small program of food for work which is administered through its development division. There also are no provisions for export credits, although it was proposed and rejected by the Council.

Unique Operating Characteristics, Operational Impacts, and Implications of Change

In the operation of the total agricultural program in the Community, the Commission and the member states operate as a partnership. Trade and price supports are the responsibility of the Commission and most other farm programs are carried out by the government ministries some with funding from the EC.

Individual government programs do provide grounds for dispute, ranging from how much aid should be allowed by one country without it giving its producers unfair advantage, to the interpretation and application of health and sanitation regulations that may completely halt border trade in a particular commodity until the issue is resolved. The Commission's role in the short run is to serve as a mediator and in the longer term to attempt to harmonize the complete range of policies. Such disputes as do exist, largely impact intra-Community trade with differences minimized in most third country trade discussions.

In all aspects of its operations the CAP is under continual change, moving from an inward looking, protective organization in its earlier days to serving the needs of a major agricultural

exporter today. It now faces a period when complete economic integration among twelve member states is planned for 1992.

As a precursor to eventual full harmonization, a common currency (ECU) has already been introduced and partially adopted. The first steps toward eliminating monetary compensatory amounts (MCA's) that compensate member states with weaker currencies has been started. Some of the negative monetary gaps were reduced in January 1989 and the remainder is proposed to be completed in two stages by the end of 1992. The MCA's distort competition between the member states and complete elimination will prevent abnormalities in both production and consumption. For example, the U.K. has become a larger exporter and consumer of feed quality wheat because it is competitive at lower prices with monetary compensation. Removing the MCA's will result in a more competitive setting within the Community. But monetary issues continue to be a major political issue dependent on a number of other decisions and the rate of development in Spain and Portugal.

Complete integration in 1992 (or somewhat later) will make for a stronger Common Market economy. Agricultural production has been frozen in place by the intervention system. Weakening the buying in system after 1992 will allow farm production to flow to the most efficient areas. Obviously, such shifts will cause major adjustment problems for the higher cost agricultural regions and will only be allowed to take place very slowly. Production shifts will in turn require major marketing changes. Larger, multi-national processing and marketing firms may be expected to displace the smaller, national firms. Where these locate and the rules governing labor, distribution, and selling will be subjects for intense future discussion.

SUMMARY AND EVALUATION

Summary

The large imbalances in world grain markets in the mid 1980s, and the resulting budget cost for the Community has focused EC thinking on realistic reform of the CAP. While the objectives put forth in the Treaty of Rome remain intact, it is now widely recognized that the CAP must adjust to two principal constraints: external market conditions and the availability of public financial resources.

The market realities are a long term trend in the increase of EC agricultural production of 1.5 to 2.0 percent per year, while internal demand has increased only about 0.5 percent per year. The budget issue is underscored by the Community's growth in agricultural expenditure at an average seven percent per year in real terms over the last 10 years, whereas its GDP increased only 2 percent. A large element of this expenditure (89 percent of 1986 EAGGF expenditure) was for intervention storage and export restitutions to manage surpluses.

In recognition of these constraints, the Community has implemented a package of coordinated measures to reduce the rate of growth of both agricultural output and budget outlay. First, is a more restrictive pricing policy that involves a gradual scaling down of support prices for products in surplus. For example, the intervention price for grain was frozen for the crop year 1988/89 (in ECU) and again for 1989/90. Second, supporting more realistic prices, is the principle of co-responsibility, intended to shift a portion of the cost of surplus disposal from the Community budget to producers and in so doing, to impose some market discipline. If the guarantee threshold is exceeded, intervention prices are cut by three percent in the following marketing year. If production continues above the guarantee threshold, the price cuts become cumulative until production eventually declines. An additional

special levy of up to three percent of the intervention price may be imposed.[1]. Third is to place a limit of 160 million tons on the volume of all grains eligible for intervention price guarantees and together with more stringent quality standards, to force producers to tailor their output more closely to market requirements. A variety of other measures are being considered, including a change from complete reliance on price support to income support for small producers (which could negate some of the price reductions already implemented), and the use of production quotas. Intervention stocks of wheat have decreased from end of year 1985/86 level of 10.3 million tons to 2.9 million in 1988/89, as seen in Appendix Table 3. Some of the decrease was accounted for by production, a large part by increased livestock feeding, and some by maintaining large export volumes.

While the EC Commission is taking positive steps to address market and budget conditions it is not clear that all member governments and farmer organizations are equally responsible. Farm organizations can be expected to resist output controls and member governments are highly susceptible to farmer lobbying efforts. It remains to be seen how much member government assistance will be made available to offset declining Community aids. By the same token the Community's plan to increase spending on structural policy, especially to problem regions will to some degree offset the effects of lower guarantee expenditures.

Evaluation

The EC Commission is responsible for administering the CAP, including the surplus disposal and the variable levy system, which controls imports of agricultural products. By establishing the essential terms of export transactions, the EC Commission performs a state trading role as defined in Chapter II of this volume. How well it performs in this role has important consequences for both domestic and international wheat markets.

Evaluating its performance must begin with determining how well it has attained its original objectives related to the domestic economy. The second set of criteria used in the evaluation is the unintended effects on the domestic economy and consequent impacts on the world trading environment.

The CAP's original objectives were to improve living standards for farm families, to stabilize markets, and to provide an assured food supply to its consumers. With the possible exception of farm income it has abundantly succeeded in its intended objectives. Its objective of income parity with the non-farm sector has not been attained and is probably unrealistic. It is clear, however, that farm level prices and hence income would fall in the short run in the absence of the CAP. By this measure EC farm income is greater than otherwise would have been achieved. In the longer run, after adjustment of excess resources out of EC agriculture, farm level prices would likely rise given existing import protection. Food security is no longer an issue as the Community has become a major exporter of many farm commodities, including wheat.

While pursuing these original objectives, the EC has become much more involved with international markets than it first expected. By establishing and maintaining a real intervention price equal to or above member states existing policy support prices and much above world market clearing prices, domestic wheat production has been increased by drawing marginal land into production and through the use of more inputs on existing land. Higher prices have also contributed to reduced consumer purchases. One study estimates consumer prices to be 21 percent higher and consumption five percent less under the CAP [7]. The combined result has been a surplus of wheat on the EC market. This excess quantity has been stored, fed to livestock, and exported both to commercial customers and as food aid.

In addition to higher domestic wheat prices and expanded production, the CAP has also achieved the objective of market stability. The intervention price has provided an effective floor price and combined with the variable import levy has eliminated most of the normal price fluctuations faced by wheat producers. The import levy together with the threshold price has effectively separated the domestic and world markets and removed all of the international price variability from the EC domestic market. An additional effect has been the generation of revenues through the variable levy system to fund the CAP's operation although relatively little revenue is presently derived from wheat imports. The system has also provided flexibility in that domestic price support procedures are simpler than in some countries and support to farmers is less transparent than would be the case with direct payments.

While domestic targets have largely been achieved, much of the success has come at the expense of the international wheat market. Higher domestic prices that called forth larger supplies have meant larger surpluses to be sold on the world market. Three-year average EC-10 common wheat exports (including spelt and merlin) increased from 2.5 million tons in 1977-79 to 10.8 million in 1986-88, Appendix Table 6. Over the same time period, wheat imports into the Community decreased from 3.5 to 1.9 million tons. The Community's net trade position for wheat has therefore gone from a net deficit of 1.0 million tons in 1977-79 to an export surplus of 8.9 million tons in 1986-88. The inelastic world market demand for wheat has meant relatively greater declines in equilibrium prices from these added exports, other things equal thus, achieving domestic price stability appears to have exacerbated international price instability.

The EC has been successful in increasing its share in the international wheat market. The 1965-69 EC-10 share of world wheat exports averaged 14 percent. This percentage increased

steadily to register 27.3 percent for the three-year period, 1985-87. At the same time, wheat imports into the EC-12 declined from 18.6 percent of the world total to 13.3 percent. (While this paper focuses on wheat, the EC continues to be one of the largest net importers of agricultural products but is now a net exporter of temperate zone products). Whether intended or unintended, the success of the Community in managing its imports and exports has contributed to a major restructuring of world agricultural markets.

In sum, it is clear that EC wheat trade is linked to policy objectives for its domestic agriculture and is carried out through private trading firms. Yet state intervention to specify the terms for wheat export transactions places it firmly in the category of state trading. As such, the Community has enjoyed much success in improving the welfare of its domestic farmers at the expense of its consumers and the world trading environment. It has now begun the process of shifting the weighing of policy impacts toward a more realistic domestic balance. The remaining task is to join in multilateral negotiations aimed at designing a framework to encompass state trading to reduce conflict in the international arena.

ENDNOTES

1 . EEC import and export data exhibit a wide variation depending on source. These figures are reported by DG-6.

2 . The only exception to this was in the mid 1970s when world price was higher than the internal EC price.

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APPENDIX TABLE 1

AREA, YIELD AND PRODUCTION OF GRAINS, EEC-12, 1980-88.

Grain	1980			1988			
	Area (100ha)	Yield (100kg/h)	Prod (1000t)	Area (1000ha)	Yield (100kg/h)	Prod (1000t)	
Common Wheat		13,518	42	56,693	12,811	53	68,388
Durum Wheat		2,186	23	5,025	2,720	25	6,660
Rye & Meslin		1,172	29	3,384	954	30	2,865
Barley		13,474	37	50,323	12,219	42	50,737
Oats & Mixed Cereals		2,737	30	8,158	1,835	32	5,816
Maize		3,762	55	20,538	4,038	70	28,186
Other Cereals		149	42	627	295	40	1,187
Total Cereals (exc rice)		36,998	39	144,748	34,872	47	163,839

Source: Commission of the European Communities, "The Agricultural Situation in the Community, 1989 Report," Brussels, 1990, Tables 4.1.1.1. through 4.1.1.4.

APPENDIX TABLE 2

WHEAT SUPPLY-DEMAND BALANCES, EEC-10, CROP YEARS 1980/81-1987/88.

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
	(1,000 Tons)							
Useful Production	54,990	54,225	59,772	59,211	76,340	65,557	67,166	65,183
Imports-Extra EEC	11,146	12,258	10,538	10,920	13,181	16,259	14,249	16,368
Exports-Extra EEC	21,652	22,917	21,795	23,620	29,769	29,270	28,588	30,333
Change in Stocks	152	(-) 992	3,482	(-) 4312	7,117	(-) 693	(-)1903	(-) 415
Domestic Use	44,163	44,448	44,719	50,225	52,477	52,708	53,649	51,498
Animal Feed	13,185	13,539	14,933	20,161	21,304	21,258	22,029	19,558
Human Food	27,678	27,536	26,157	26,069	26,767	26,873	26,853	27,164
Self Sufficiency (%)	125	122	134	118	146	124	125	127

Source: Eurostat; Computer Printout, DG VI/A-2, 31 May, 1990.

APPENDIX TABLE 3

INTERVENTION STOCKS IN THE EEC AT END OF MARKETING YEAR

Grain	1983/84*	1984/85*	1985/86 (1,000 Tons)	1986/87	1987/88	1988/89
Common Wheat	3,318	10,256	10,312	7,319	4,567	2,906
Bread Quality	3,313	4,301	2,917	4,232	2,576	2,639
Feed Wheat	5	5,955	7,395	3,087	1,991	267
Durum Wheat	553	825	887	1,537	2,325	1,122
Rye	242	833	1,161	1,151	911	1,096
Barley	222	2,013	5,296	4,235	3,916	3,242
Maize			392	22	19	778
Total	4,335	13,927	18,502	14,271	11,748	9,146

Source: Commission of the European Communities, "The Agricultural Situation in the Community, 1989 Report," Brussels, 1990, Table 4.1.6.3.

*Eur-10

APPENDIX TABLE 4.

EEC-10 COMMON WHEAT EXPORTS, TOTAL AND TEN LARGEST MARKETS, 1979-88.*

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
	(1,000MT)									
Total Extra EEC	4,338	7,505	10,528	9,250	11,878	11,178	11,360	9,238	11,864	11,180
Soviet Union			856	1,573	3,822	4,937	4,312	4,977	5,170	3,477
Egypt	483	1,460			1,107	292			394	783
Bangladesh	197	156	193	322	237	220			684	681
Syria					265	430	183	403	271	399
Cuba				445		240				330
Poland	659	1,486	1,652	1,407	1,428	1,238	686	621	1,036	257
North Korea				319						232
Ivory Coast	189	183	232			216	226	218		230
Algeria	155	595	327	622	728	955	972	166		223
Morocco	984	1,098	1,617	793	480		1,570			159
Tunisia	159	232	376	297	294		401	481	328	
Pakistan										
Senegal										
Ethiopia						213	403	288		
Cameroon										
Switzerland	130	140	200							
Portugal	163								617	
Brazil	279									
Iran		166	232							
German D.R.		466			335	382				
Finland			242							
Romania				292						
China				705	869		321	129	288	
Spain							214	813	416	
South Korea								159	422	
Ten Markets	3,398	5,982	5,927	6,775	9,565	9,123	9,288	8,255	9,626	6,771
% of Total Wheat Exports	78	80	56	73	80	82	82	89	81	60

Source: Eurostat-Comext, Computer Printout, Exports by Partner and Time, 7/6/1990.

*Includes spelt and meslin, excludes seed.

APPENDIX TABLE 5.

EC-10 COMMON WHEAT IMPORTS AND LARGEST SUPPLIERS, 1979-88.

	1979	1980	1981	1982	1983 (1,000MT)	1984	1985	1986	1987	1988
Total to EC-10	3,718	3,172	3,540	2,999	2,262	2,943	2,505	2,267	2,239	1,788
Canada	1,560	1,508	1,749	1,406	1,173	1,112	1,195	832	988	896
U.S.A.	1,946	1,661	1,768	1,572	1,032	1,714	1,253	1,076	570	463
Argentina	145		7	14	45	115	8	5		
Australia	54	3	4			1	25	234		
Spain								92	478	133
Saudia Arabia								28	203	296
Others	13		12	7	12	1	24			

Source: Eurostat-Comext, Computer Printout, Imports by Partner and Time, 7/6/1990.

APPENDIX TABLE 6.

IMPORTS AND EXPORTS OF COMMON WHEAT, EC-10, 1979-1988.

	1977	1978	1979	1980	1981	1982	1983 (1,000MT)	1984	1985	1986	1987	1988
EC Imports	3,274	3,479	3,718	3,172	3,540	2,999	2,262	2,943	2,505	2,267	2,239	1,788
EC Exports	1,384	1,892	4,338	7,505	10,528	9,250	11,878	11,178	11,360	9,238	11,854	11,180
Net Trade	(1,890)	(1,587)	620	4,333	6,988	6,251	9,616	8,235	8,855	6,991	9,615	9,392

Source: Eurostat-Comext, Computer Printout, Exports and Imports by Partner and Time, 7/6/90.

APPENDIX 7.

EEC WHEAT EXPORT PRICES TO TEN LARGEST MARKETS, 1980-88.

Country	1980	1981	1982	1983 (U.S.	1984 \$/MT)	1985	1986	1987	1988
Soviet Union	193	177	137	131	142	129	118	77	90
Poland	183	172	144	131	141	-	-	-	-
Egypt	180	180	182	155	146	177	108	74	124
Syria	116	221	135	136	141	138	119	91	89
Algeria	182	171	156	161	141	131	128	69	-
Morocco	179	158	144	152	150	119	143	94	-
Tunisia	188	165	151	171	155	124	119	74	-
Ivory Coast	168	165	166	159	144	146	145	127	-
Bangladesh	243	194	192	170	163	160	209	111	160
China	144	170	147	121	159	106	97	-	-
Average	178	177	155	149	148	137	132	90	93

Source: Simple Average Estimated From Quantity and Value by Calendar Years Reported in U.N. Trade Data System, Reporter EC-12, Run Date: 90/05/08.

CHAPTER 6: Japan

JAPAN

Vernon L. Sorenson

INTRODUCTION

Important changes have occurred in the Japanese food and agricultural economy in recent decades. With rapid economic growth and increasing personal incomes, pressures have built to expand and improve diets. As a consequence, Japan has become the largest net importer of agricultural products and currently accounts for approximately 9 percent of world agricultural imports.

Changes in the Japanese food economy reflect increasing affluence by Japanese consumers and policies that create high cost foodstuffs in Japanese markets. Price supports for large numbers of small (mostly part-time) farmers have led to very high prices for domestically produced food. These domestic policies, in turn, have been supplemented by institutions and instruments that insulate domestic markets from international competition. These protective measures have contributed to escalating land prices and to the perpetuation of many small inefficient farm holdings.

Japan has used a wide range of border measures; among standard policy instruments, import quotas have played an important role. Health and quarantine regulations have also been an important element of Japanese food import policy. Other forms of border protection include tariffs, mixing regulations, and a variable levy for sugar. A central component of Japan's effort to isolate its domestic food and agricultural economy has been a series of state trading arrangements: the most important of these include, the Japan Tobacco Inc. (JTI), the Livestock Industry Promotion Corporation (LIPC), the Japan Raw

Silk and Sugar Price Stabilization Agency, and the Japanese Food Agency (JFA) [1]. These agencies are either governmental or quasi-governmental bodies and all are involved in control of imports and where relevant exports of commodities under their jurisdiction. Another important function in most cases is to administer domestic price and income support programs for producers. The principal products subject to state trading arrangements are tobacco, dairy, sugar, barley, rice, and wheat. International trade in these commodities is subject to complete monopoly control.

The stated objectives of these entities vary, including the need to ensure sound development of an industry, the need to ensure a steady supply of a product, to manage more effectively domestic programs, and to contribute to stabilizing consumption and market prices.

The government is authorized under the Food Control Law of 1942 to adjust demand, supply and prices of rice, wheat and barley in order to secure the nation's food supply, to stabilize the nation's economy, ultimately to secure their reproduction, and to stabilize the consumer's household budget [1]. Exports and imports of these commodities are entirely under government management, with the Japanese Food Agency as the implementing entity. The Agency seeks to ensure smooth operation of the Food Control Law through management of quantities traded. The Agency normally does not physically undertake the import and export of these commodities. Actual imports and exports are carried out, with government permission or as agents of the government, by

private traders who are certified by the government as traders of these products. Quantities traded and internal selling prices of these commodities are, however, completely controlled through the JFA.

The Japanese Food Agency represents a clear case of state trading as defined in Chapter II of this study. Government control of international transactions in the rice, wheat and barley markets is extensive. This control is used to help manage problems inherent in the Japanese food and agricultural system. These problems are reflected in three main characteristics of the system, namely; 1) consumption and production trends and patterns, 2) the structure of Japanese agriculture, and 3) domestic farm and food policy. In the ensuing pages, a brief discussion of each of these characteristics is presented to provide background necessary for evaluation of the functioning Japanese grain markets and the role of state trading in these markets.¹

CONSUMPTION AND PRODUCTION OF AGRICULTURAL PRODUCTS

During the last twenty years Japan established its role as a major world exporter of manufactured products and a major importer of food and of raw materials to feed its industrial plant. This has led to shifts in the role of agriculture, forestry and fisheries in the Japanese economy. The share of gross domestic product in these industries declined from 15.1 percent in 1960 to 2.8 percent in 1988. Despite substantial increases in food imports, these products as a percent of total imports declined from 42.3 percent in 1965 to 25.3 percent in 1988.

Food consumption in Japan, while still based on a historical pattern with heavy emphasis on rice and fish, has changed significantly in recent decades. During the decade 1975 to 1985 the daily energy intake in Japan increased by about 14 percent and consumption of fats

increased by just over 50 percent [2]. This change reflects reduced consumption of rice, nuts, and sugars and increased consumption primarily of meat, dairy products, and potatoes and starches. Consumption of wheat, pulses, vegetables, eggs, fish and shellfish, and edible oils remained relatively constant. While these changes are significant, Japan retains a heavy emphasis on rice and fish as its basic sources of food compared with the meat and bread grain diet prevalent in other industrial economies with comparable income levels.

Differences in Japanese consumption reflect food availability from domestic sources and a historical food culture developed over a long period of isolation from other developing industrial economies and in later years a public policy mandate for rice that has been guided by cultural as well as economic considerations. Rice is central both because of its historical importance in diets and because of its adaptability to cultivation in a semi-tropical environment and on small farms often operated on a part-time basis. As a result Japanese rice policy is crucial and as stated by one author, "the price of rice may be thought of as representing politics itself in Japan"[3]. Japan intervenes heavily in the rice market and rice policy is key to understanding the set of protectionist policies that limit access by exporting countries to Japanese agricultural markets.

Japanese agricultural production has also evolved significantly in recent years. Overall growth in output has been relatively slow. Growth, however, has not been evenly distributed (Table 1). Production of grains declined while production of vegetables, fruits and nuts, and livestock products all increased substantially. This led to an overall decline in self sufficiency from 90 percent in 1960 to around 70 percent in the late 1980s (Table 2). Among the grains, rice production moved from approximate self sufficiency in the earlier years following WW II to surplus production in the

late 1960s and 1970s, and with the aid of production adjustment programs has returned to self sufficiency. Rice production at 100 percent self sufficiency is a long held goal of Japanese agricultural policy. Sharp declines in self sufficiency levels have occurred for wheat, barley, and soy beans. Self sufficiency has been maintained at near 100 percent for vegetables and eggs and at a level of 85 to 90 percent for milk and dairy products, while self sufficiency has moved downward somewhat for fruits and beef to 67 and 58 percent, respectively, in 1988.

The changes shown in Tables 1 and 2 reflect a pattern that has led to a substantial increase in Japanese imports of agricultural products as well as some change in agricultural production in response to internal demand generated by economic growth and higher personal incomes. This adjustment is particularly reflected in the rapid expansion in production of all livestock products as well as fruits and vegetables.

STRUCTURAL CHARACTERISTICS OF JAPANESE AGRICULTURE

Two elements in the Japanese situation that have both constrained agricultural development and affected policy are the severe land limitations and the structure of agriculture itself. Total cultivated land in Japan in 1984 amounted to 5.39 million hectares and represented only about 14 percent of Japanese land area. This land was distributed among about 4.47 million farm households and hence represents only 1.2 hectares per household. As of 1984 the average land area under cultivation by full time farm households was 2.2 hectares. Almost 41 percent of all farms were 0.5 hectares or less in size and only 0.8 percent exceeded 6 hectares in size [10]. Little structural change has occurred since 1975. This fragmentation hinders the ability to earn an acceptable income from farming. It also has led to extensive development of part time farming (Table 3).

From 1965 to 1989 the number of farm households decreased from 4.9 million to 4.2 million. Of this number only 603 thousand or 14 percent are engaged full time in agricultural production and depend on agriculture for their entire income. The remainder (86 percent) are part time farmers and 72 percent of these farm households are primarily employed off the farm. The implications of this condition for agricultural efficiency are profound. As stated by Hillman and Rothenberg:

Because they depend little on agricultural income, 70 percent of the farms in Japan are less responsive to profitability at the margin, less innovative and more costly. If they were rural residences predominately, the efficiency of the whole sector would not be noticeably affected. Instead they occupy 44 percent of the cultivated land, use 40 percent of agricultural fixed capital and produce 30 percent of the gross farm output, including half of the rice.[6]

This fragmented structure in Japanese agriculture has important implications for agricultural policy. As in all other industrial countries Japanese farm policy has sought to deal with the problem of low farm incomes. With land resources of just over 1 hectare per farm on average, productive capacity simply is not adequate to provide a reasonable family income, without very high commodity prices even if resources are well utilized. These conditions in agriculture existed within a framework of unprecedented growth in industrial output and productivity and an increase in non-farm per capita earnings and income levels. Low agricultural incomes, in turn, created pressures to compensate through increased prices for farm commodities for differentials in rural-urban income growth due to relatively slower growth in agricultural productivity. Increasing non-farm incomes also created conditions where urban consumers -- and taxpayers -- have accepted government

action to support agriculture that both increased food costs and taxes. This is in sharp contrast to earlier conditions where low wage Japanese urban workers were highly sensitive to food prices and hence, more resistant to increases (7).

EVALUATION OF FARM AND FOOD POLICY

Post World War II Japanese farm policy can be divided into three phases (1) the period of food shortages from 1945 to 1955, (2) the period of rapid economic growth and industrialization from 1955 to 1970 and (3) the period of adjustment since 1970.

The major policy objectives of the 1945-55 period were (1) to secure adequate supplies of staple foods, and (2) to achieve land reform and provide employment for a large number of people who were idled following Japan's defeat in World War II [8]. Policy during this period involved direct government control of prices and markets including food distribution. Land reform was implemented in 1952 and resulted in the redistribution of 1.7 million hectares of land from large land holders to tenants of the land. Land ownership was granted to tenants who farmed more than 0.3 but less than 3 hectares. Ownership of land by non-residents was prohibited and resident land owners were prohibited from owning tenant land exceeding 1 hectare. The long term policy ramifications of this period clearly arose from the land reform. This action established the small scale farm structure that continues today. It also established restraints on land transfer that have contributed to the slow evolution of farm structure. This action appears to have improved the welfare of farmers at the time and administered pricing retained farm incomes comparable to non-farm levels. However, during and following the period 1955-70, when non-farm incomes increased rapidly, land controls prevented individual farmers from increasing incomes

through economies of scale and accumulating larger producing units. The burden of maintaining income parity for farm households became one of raising producer prices to increase income from farming and moving to part time farming with supplemental non-farm earnings.

The shift in Japanese policy from direct market control to price supports occurred with the Agricultural Basic Law of 1961 [8]. The basic objective of policy at this juncture was to correct the income differential that had developed between the agricultural and non-agricultural sectors. While some attention was paid to policy for structural change and policy to create selective expansion to meet changing demand, the basic thrust of policy was income protection through the implementation of domestic price supports along with border protection necessary to implement domestic programs. Protection in one form or another was established for a wide range of crops and livestock products but the central issue was rice policy. A number of reasons existed for this. First, rice historically had represented the core of Japanese efforts to provide an adequate basic food supply from limited land resources - along with products of the sea. Second, rice is produced by a large majority of Japanese farmers and is the sole output of many small and part-time farmers. Hence a program designed to improve income would have broad impact only if implemented through the price of rice. Third, both from the viewpoint of public awareness and of an electoral system that weights rural votes much higher than urban votes, political realities dictated an emphasis on rice policy.

Of the aims stated in the 1961 Act the one implemented most effectively was rice policy. As stated by Reich, Endo and Timmer:

Since the early 1960s, the Japanese government has responded to the problems of structural change with an extraordinarily

heavy reliance on rice policy to support Japanese farm incomes. The Basic Agricultural Law of 1961 established a direct link between hourly incomes earned from rice farming, and average urban wages, called the Production Cost and Income Formula. That law reflected the political power of Japanese farmers, but also the government's desire to create a rural market for Japan's manufactured goods. Any shortfall in rice earnings was made up by a subsequent increase in the government's purchase price for rice. This policy created the engine for rapid increases in rice prices. In 1960 the producer price was only slightly over the world price; by the late 1970s the producer price was three to four times the world price. In effect, Japan raised the domestic price of rice as a substitute for expanding farm size, as a way to deal with the decline in income per acre relative to non-farm incomes [9].

The unintended consequences of this policy were two-fold. First, it affected the balance between supply and demand for rice to the extent that burdensome surpluses developed. Second, it contributed to an increase in the price of farm land that acted as a barrier to restructuring agriculture into larger, lower cost producing units. Higher production costs, in turn, provided the basis for farm interests to exert pressure for even higher support prices.

The extent of overproduction of rice as indicated by inventory accumulation is shown in Table 4. This led to two initiatives in the 1970s. The Agricultural Land Law was revised in 1970 to facilitate concentration of farmland, and the Rice Cultivation Diversion Measure was initiated to cope with the overproduction problem in rice. As summarized by Reich, Endo and Timmer:

The goal was to encourage Japanese farmers to shift out of rice cultivation and into commodities where growth in demand was

more promising and where Japan remained a net importer. The list of commodities was long: wheat, soybeans, barley, fruits, vegetables, hay, poultry, pork and beef. All of these received some encouragement from the Ministry of Agriculture, Forestry and Fisheries [9].

The measures used included import restrictions to protect domestic prices, incentive payments to farmers to convert rice land to other products, and later in the 1970s price policy was changed. During the 1960s and through much of the 1970s increases in the producer price of rice exceeded price increases for other agricultural commodities. The resulting disparity in prices contributed to continued growth in rice production and the declining production of some other crops. In 1977 there was a major price correction. The producer prices of wheat, barley, soybeans and rapeseed were increased by 44, 48, 42 and 34 percent respectively. Real prices jumped significantly for each commodity. Beginning with these price shifts a reversal occurred and acreage devoted to these crops, after a long period of decline, began to increase [10].

These increases, though modest in total, reflect two phenomena: (1) Some conversion of rice land to other crops and, (2) the expansion of winter production usually through rental by larger farmers on rice land that had here-to-fore been left idle between crops of rice -- especially by part time farmers. Some diversification was achieved but at a high budget cost. These high costs were justified in part with the assertion that the diversification adds to the level of self sufficiency achieved by Japanese agriculture and reduces production of surplus rice.

The 1980s ushered in a new concern in Japanese agricultural policy. Government deficits have been substantial and the pressures of tight budgets has made it increasingly difficult to expand funds for crop subsidies.

This is reflected in the slowing rate of increase and in some cases a reduction in the government purchase prices for commodities. There also has been a reversal in the relation between the government's purchase and selling price for rice.

The preceding overview indicates that post WW II Japanese agricultural policy has largely resulted from internal conditions and forces. These included the initial post war effort to provide an adequate basic food supply and create employment in agriculture. This was followed by an emphasis on maintaining incomes from farming comparable to those in a rapidly growing urban and industrial sector. By 1970 distortions had developed that led to efforts at adjustment in output composition to more closely fit demand conditions. More recently large Japanese budget deficits have begun to impose constraints on expenditures for commodity programs. The rate of increase in commodity price support levels has slowed.

GRAIN MARKETS AND STATE TRADING

Rice is Japan's principal agricultural product, accounting for about 30 percent of total value of farm output. The cultural significance of rice has led to policies over time that have encouraged production and made rice the most profitable crop to grow. Because rice is the most important dietary item consumers attach great importance to the availability and price of rice. This led to a policy of high producer prices, low consumer prices and massive government subsidies. Over time this policy has been applied under varying conditions of supply and demand and more recently has been adapted to shifts in dietary patterns. Despite these shifts it remains true that attitudes toward rice underlie principles governing agricultural policies.

Other grains fit into the Japanese food economy in several ways with some change

over time. Historically Japan produced sizeable quantities of wheat and barley. Barley was used extensively as food by rural and urban low income people. However, during the earlier post WW II years production of both grains declined sharply until some reversal occurred in the 1970s as a result of shifts in price policy. These production shifts were not sufficient to offset increasing demand and at present Japan is only 17 percent self sufficient in wheat (Table 2) and substantially less in barley.

Japanese wheat imports have been relatively static since the early 1970s (Table 5). The greatest increase in Japanese grain imports over the past 2 decades has been in coarse grains to support expanding livestock industries. These imports, primarily corn, barley and sorghum, along with protein concentrates, largely imported soybeans, provide the foundation for pig, poultry, beef, and dairy production. Because these feeds do not compete with domestic production they are imported without significant border restraints and are not subject to domestic price and income support. This does not mean that no government control exists. In the case of feed grains the MAFF controls expansion of manufacturing capacity through licensing and administrative guidance [11] thereby limiting the quantity of imports.

Wheat which is domestically produced, is enmeshed in control of domestic markets and of imports. This control - both domestically and on imports - is exercised through the Japanese Food Agency, a component of the Ministry of Agriculture, Food, and Fisheries.

The Marketing of Rice

Immediately following WW II all domestic rice was marketed by the government. A change in 1969 established a voluntary marketing system. This dual structure exists today. Rice is collected at the primary and secondary levels by cooperatives and/or rice

merchants. From there, most rice is purchased either directly by the government (government rice) or by members of two bodies - the National Federation of Agricultural Cooperative Associations (Zen-Noh) or the National Federation of Stable Food Collections Cooperative Association (Zenshuren). The Japanese Food Agency is the buyer and seller of government rice. Government sales are made to wholesalers. About 60 percent is purchased by the JFA and 40 percent passes through the cooperatives.

A portion of the crop - estimated at as high as 30 to 40 percent - is not marketed through either of these channels [2]. These amounts reach consumers either through unauthorized private channels, through gifts, or is used on the farm where produced.

Each year the government, through the JFA, establishes the purchase and selling price for rice after consulting with the Rice Price Advisory Board. Over time a number of pricing plans have been used but the results are similar [2]. The government selling price was below the purchasing price until 1987 (Table 6). This, in addition to government administrative costs and dealers' margins, resulted in a substantial loss to the government. Since 1987 the consumer price of rice has been higher than producer prices. Also as indicated by the world indicator price in Table 6, the Japanese producer price is much higher than world prices. The range is from about 1.6 times in 1974 to almost 9.0 times in 1987. The annual world indicator price is the price for Thai white rice, 5 percent broken, taken from the Thai Board of Trade; consisting of an average of monthly prices in a April-March marketing year. Possibly the outstanding fact to be noted about Table 6 is that there seems to be little relationship between world price and the buying or selling price of domestic Japanese rice; a clear indication that the Japanese market is largely isolated from international competition.

Voluntary marketed rice is subject to less government control but benefits from equal isolation from international competition. Voluntary marketing differs in that the government does not fix the purchase price of this rice. "Because the purchase price is not fixed, most of the voluntary marketed rice is of higher quality than that delivered to the government, allowing it to fetch a premium over government marketed rice of about 25 percent at the wholesale level and about 35 percent at the retail level" [2]. A price floor is established through the government purchase program. The government also provides support to encourage this marketing system by:

- providing part of the marketing finance;
- granting a subsidy equivalent to the interest and handling charges incurred from the time of assembly to the time of sale to the designated collection agencies of rice;
- subsidizing the establishment of marketing facilities; and
- providing subsidies to farmers to improve the quality of rice, thereby increasing demand for rice. The extent of these subsidies for 1969-89 are shown in (Table 7).

As previously noted, trade in rice is strictly controlled by the JFA. Both exports and imports can be undertaken only with permission of the Agency and all imports must be sold to the Agency upon arrival at the port of entry.

The Marketing of Wheat and Barley

The distribution system for wheat and barley in Japan is somewhat less complicated than for rice. Since 1952 producers have been free to market privately if they wish but the JFA

stands ready to buy all of both products offered (in reality virtually all of each commodity) for sale to the government. As with rice, cooperatives provide facilities for the receipt, storage, and handling of these grains sold to the Japanese Food Agency.

Also, as with rice, the Government through the JFA sets prices to both producers and users. The government selling price for wheat historically has been approximately one-third its purchase price (Table 8). This creates a significant direct government cost. The government selling price, in turn, has been approximately twice a world indicator price of U.S. No. 2 hard red winter wheat (Gulf) average of monthly prices, in (July-June) year.

Beginning in 1988 the government moved from a producer price based on a parity calculation plus an added subsidy to prices based on production costs of core farmers. This change was expected to lower producer prices but at this writing no data is available to determine if this in fact has occurred.

Since Japan imports a major portion of its wheat and barley, the most important function of the JFA is control of and pricing of imports. The implementation of imports for wheat is described by Kalmbach, Sharp and Walker (p. 48) as follows:

The quantity of wheat (or quota) that the government decides to purchase and import each year is determined by a process of developing an annual supply-demand program for the coming year. This program is developed by wheat types and varieties. In the course of determining the quantities of each wheat variety to be imported, various factors are taken into consideration. These factors include estimates of demand by wheat type (these estimates are determined by the historical uses of the wheat), availability of wheat by type in various supplier countries, the supply and

demand conditions for rice, warehousing conditions, and bi-lateral agreements with exporting countries.

When imported wheat is to be purchased, the Food Agency informs registered importers of the conditions set forth for the purchase at the beginning of each term of the purchase. The conditions include items such as source of wheat, producing year, variety or class, grades, terms governing purchase of wheat at reduced prices, penalties, insurance, and default of shipping period.

This notification is given not later than 2 days before the accepted date of the sales application which is usually every Wednesday between 2:00 and 2:30 p.m. The importers then submit to the Food Agency a sales application for imported wheat based on the Food Agency specifications. The Food Agency selects the seller whose offering price meets the target purchase price range and is among the lowest tender prices. The Food Agency is not required by law to take the lowest tender and uses some discretion in the selection. The Food Agency then enters into a sales contract with the seller or importer within 10 days following the tender. This contract explicitly stipulates all terms of sale. [11]

The JFA has no direct relation with international trading firms. It carries out its importing function by granting import permission to Japanese trading companies. These companies, in turn, must sell all imported grains to the JFA. The reason for this arrangement is to improve efficiency by making use of the traders know-how and expertise in international grain markets [12]. The JFA fixes the necessary import quantities by month based on annual demand and supply estimates. Quantities imported are sold by the JFA to millers based on past quantities bought

and each millers' estimate of expected current needs.

The JFA enters into no bilateral price specific agreements with exporters but does relate to exporters through non-compulsory agreements with foreign wheat or barley exporting boards on an annual basis and may have periodic meetings to exchange information with government officials of exporting countries [12].

The government purchase and selling prices for imported wheat are shown in Table 9. Unlike domestic wheat where a significant government cost is incurred, imported wheat creates a substantial return to government due to a purchase price significantly below the JFA selling price. This gain provides a source of funds to offset the costs of domestic support programs.

SUMMARY AND CONCLUSIONS

Japanese farm and food policy has been guided by a unique economic, political, resource, and sociological environment. A long history of intermittent food shortages in conjunction with limited land resources created an enduring concern with food security. Rice has long held a dominant position in the Japanese food system. Policy has been guided by concern with food security as well as protecting farm income and stabilizing farm and food markets.

The first priority of food policy continues to be maintaining self-sufficiency in rice. This policy has become interwoven with both domestic and trade policy for other farm products. At times when surplus rice production has occurred, efforts have been made to divert land to other products. But this diversion has never been pursued to the point that Japan has imported significant quantities of rice. Japan has also achieved self-

sufficiency in a variety of other high value fruit, vegetable and livestock products.

Japanese policy has become interwoven with its non-farm economy in two ways. One of these stems from the fact that a very high percentage of Japanese farmers are part-time and depend on non-farm employment for part or most of their income. Growth in non-farm incomes both for urban and rural people has led to strong pressures for government income support to families that are entirely or primarily dependent on agriculture. With very small farms this has led to high price supports and insulation of Japanese markets from the competitive pressures of world markets.

The second link to the non-farm economy is through food demand. Until recently consumer prices of rice have been lower than prices paid to producers. Consumer prices on some other items, particularly livestock products have been very high (Table 10). This helps to maintain a diet in Japan that is considerably different from other industrial countries with comparable per capita income levels (Table 11). The basic Japanese diet is centered around rice and fish as contrasted with the western livestock product, bread, and cereal diet.

It cannot be assumed that even with complete exposure to world markets Japanese food consumption would fully emulate western diets though significant change likely would occur. The long development of rice-based diets in Japan and the cultural significance attached to rice would prevent a rapid shift in dietary patterns. Also, if Japanese farm prices moved to world price levels, rice likely would continue to have a comparative production advantage (albeit on much lower priced land) and be the most economical food source for consumers. Market changes would tend to maintain both production and consumption of rice. How this would work out in maintaining fish consumption in preference to livestock products is less apparent. If a major shift

occurred this would require expanded imports of coarse grain or livestock products.

In summary, Japanese policy is predicated on the objectives of food security and seeks to achieve this by influencing both consumption and production. This in turn requires various market controls and isolation from world markets. As a part of this food control system the export and import of rice, wheat and barley are controlled by the government through the Japanese Food Agency.

Of these grains, wheat is the most important traded item. Rice has been exported in some years (Table 4) but Japan has no continuous overseas markets and maintains a policy of self sufficiency without exportable surplus. Wheat imports are exclusively from three sources, Australia, Canada, and the United States (Table 12). The data on import prices have one striking characteristic, namely, that Canada sells to the JFA at a consistently higher price than wheat from Australia and the U.S. Over time, however, prices move up or down similarly for each country and the ratios of quantities provided by each country does not show major changes. The JFA maintains stable proportions purchased from each seller just as it does sales to millers in Japan to whom it transmits supplies for processing.

The principal impact of the JFA on world markets, thus, arises from its complete control of aggregate quantities purchased, along with the complete subjugation of international market participation to domestic policy goals, programs and institutions. The impact that this has on world markets cannot easily be quantified. Several kinds of impacts, however, can be identified.

1. Consumer food costs in Japan are higher than would be the case with world market prices.

2. Significant income transfers from non-farm sectors to Japanese farmers occur, both through higher farm prices and taxation.
3. Consumption and production patterns are changed relative to that which would occur under a free market world price regime.
4. Lower cost producers in exporting countries are deprived of sales in the Japanese market that would occur if markets were opened to international competition.
5. Structural adjustment within Japan to achieve more appropriate adaptation to comparative advantage is inhibited.

These conditions lead to policy induced income transfers both within Japan and among trading nations. These maladjustments generate economic loss within Japan and for exporting nations. In consequence the restrictive internal policies and the state trading regime used to implement these policies are an appropriate concern for other nations to put forward bilaterally and for negotiation within the GATT.

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1. This discussion is adapted from [10]pp 411-419.

TABLE 1: INDEX NUMBERS OF PRODUCTION

Group	1975	1980	1985	1986	1987	1988
Agriculture, total	91.8	90.6	100.0	100.3	98.0	94.7
Field crops, total	101.4	90.0	100.0	100.6	97.1	92.4
Rice	110.0	83.0	100.0	99.9	91.2	85.2
Wheat and barley	36.0	76.2	100.0	97.6	96.7	112.1
Pulses	88.8	74.0	100.0	99.2	108.8	103.0
Potatoes and sweet potatoes	81.2	85.9	100.0	107.9	103.6	96.8
Vegetables	92.8	98.7	100.0	102.3	103.1	99.5
Fruits and nuts	104.9	103.5	100.0	99.7	104.1	97.4
Flowers	71.6	88.3	100.0	104.1	110.0	117.1
Crops for industrial use	107.5	106.8	100.0	98.6	95.8	86.7
Sericulture, total	191.8	154.1	100.0	87.8	73.5	62.5
Livestock, total	71.7	90.0	100.0	99.8	100.9	101.5
Dairy cattle	87.9	101.8	100.0	97.9	97.0	97.7
Beef cattle	74.1	79.6	100.0	91.5	88.2	87.2
Pigs	68.2	95.8	100.0	101.6	103.9	102.2
Layers	83.0	86.3	100.0	104.7	105.4	105.5
Broilers	62.2	86.1	100.0	100.4	102.8	102.6
Hen eggs	83.5	93.2	100.0	103.8	110.7	111.9
Cow milk	67.2	87.7	100.0	100.7	99.0	103.0

SOURCE: Abstract of Statistics: Japan, p. 76.

TABLE 2: SELF-SUFFICIENCY RATE OF FOOD BY COMMODITIES, PERCENT

Item	1975	1980	1985	1986	1987	1988 ¹⁾
Total food	77	75	74	73	71	70
Cereals (Including cereals for feed)	40	33	31	31	30	30
Cereals for the principal food	69	69	69	69	68	68
Rice	110	100	107	108	100	100
Wheat	4	10	14	14	14	17
Pulses	9	7	8	8	9	8
Soybeans	4	4	5	5	6	6
Vegetables	99	97	95	95	94	91
Fruits and nuts	84	81	77	74	74	67
Meat	77	81	81	78	76	73
Beef	81	72	72	69	64	58
Pork	86	87	86	82	80	77
Hen eggs	97	98	98	97	99	98
Milk and milk products	81	82	85	82	78	76
Seaweeds	102	104	96	101	97	76
Sugar	15	27	33	34	34	34

1) Preliminary

SOURCE: Abstract of Statistics: Japan, p. 81.

**TABLE 3: Japanese Farm Households, Full-Time and Part-Time
Calendar Years 1970-1989
(Thousands)**

Year	Full-time		Part-time				Total
			Primarily Engaged in Farming		Primarily Engaged in Off Farm		
1970	845	16%	1,814	34%	2,743	51%	5,402
1980	623	13%	1,002	21%	3,036	65%	4,661
1987	631	15%	632	15%	3,021	71%	4,284
1988	614	15%	604	14%	3,022	71%	4,240
1989	603	14%	574	14%	3,016	72%	4,194

Source: Ministry of Agriculture, Forestry and Fisheries. Data provided by Agriculture Affairs Office American Embassy, Tokyo.

TABLE 4: Japan: Rice Statistics 1965-89

Year	H Area 1000 ha	Yield mt/ha	Production 1000m/t	Imports 1000 Ut	Exports ¹ 1000 Yt	Consumpt. 1000Mt	End Stks 1,000 Mt
1965	3255	3.47	11292	893	0	11880	1349
1970	2923	3.95	11547	10	910	11690	6057
1975	2764	4.33	11980	20	0	10700	3076
1976	2779	3.85	10713	21	0	10466	3344
1977	2757	4.32	11916	64	91	10026	5207
1978	2584	4.43	11456	18	467	10299	5915
1979	2497	4.36	10882	14	648	10102	6061
1980	2377	3.73	8873	75	909	10100	4000
1981	2278	4.10	9337	66	304	10642	2457
1982	2257	4.14	9346	14	223	10774	820
1983	2273	4.15	9433	152	230	10175	0
1984	2315	4.67	10890	19	0	10200	628
1985	2342	4.53	10612	20	0	10150	1110
1986	2303	4.60	10599	17	0	9706	2020
1987	2146	4.51	9671	16	0	9805	1902
1988	2132	4.24	9041	16	0	9509	1450
1989	2097	4.49	9416	17	0	9447	1436

Source: ERS, USDA Time Series Data Tapes.

¹ Exports of rice are mainly in the form of international aid to developing countries as a disposal method in times of large surpluses.

TABLE 5: Japan: Wheat Statistics 1965-89

Year	H Area 1000 ha	Yield mt/ha	Production 1000 m/t	Imports 1000 ut	Exports 1000 ut	Consumpt. 1000 mt	End Stks 1000 mt
1965	476	2.70	1287	3526	134	4704	975
1970	229	2.07	474	4834	35	5183	950
1975	90	2.68	241	5923	36	5778	1500
1976	89	2.49	222	5521	26	5737	1470
1977	86	2.75	236	5682	30	5761	n.a.
1978	112	3.27	366	5744	88	6066	1561
1979	149	3.63	541	5599	111	6090	1500
1980	191	3.05	583	5840	138	6095	1690
1981	224	2.62	587	5577	160	6069	1625
1982	228	3.25	742	5795	254	6092	1816
1983	229	3.03	695	5857	305	6210	1853
1984	232	3.19	741	5603	269	6267	1661
1985	234	3.74	874	5532	281	6192	1594
1986	246	3.56	876	5781	391	6300	1560
1987	271	3.19	864	5653	362	6155	1560
1988	282	3.62	1021	5405	370	6116	1500
1989	284	3.47	985	5400	400	6070	1415

Source: Ministry of Agriculture, Forestry and Fisheries, Japan.

TABLE 6: Purchase and selling prices of government marketed rice in Japan

Year	Government purchase price ¥/t	Government selling price ^a ¥/t	World indicator price ^b ¥/t	Government administrative cost ¥/t	Domestic rice dealer's margin ¥/t	Government's profit (loss) ¥/t
1960	69 367	72 517	na	7 483	5 283	14.5
1965	108 967	101 783	50 376	9 983	8 533	(67.0)
1970	137 873	124 033	49 308	23 150	12 917	(195.9)
1971	142 033	122 950	42 930	20 083	14 000	(139.6)
1972	149 233	130 767	48 435	19 800	15 300	(137.3)
1973	171 683	130 100	na	23 133	16 200	(275.2)
1974	227 083	170 933	145 301	25 217	22 633	(364.0)
1975	259 500	203 417	98 853	39 983	26 567	(388.1)
1976	276 200	224 183	74 182	46 450	29 022	(366.7)
1977	287 200	246 183	76 422	56 967	31 550	(354.3)
1978	287 517	246 183	72 242	64 817	33 617	(260.6)
1979	287 983	256 517	83 816	74 550	35 367	(262.7)
1980	294 567	264 850	98 510	69 283	35 367	(96.1)
1981	294 567	273 183	101 088	61 283	37 433	(66.2)
1982	299 183	283 883	69 415	57 250	39 400	(81.6)
1983	304 433	283 883	64 377	48 300	41 900	(99.5)
1984	311 133	294 550	59 222	52 183	43 283	(104.7)
1985	311 133	305 450	48 126	62 033	44 567	(69.9)
1986	311 133	309 967	32 743	60 683	44 567	(74.6)
1987	292 616	309 967	32 849	na	na	(48.9)

^a Government purchase and selling prices are based on the average of first to second grade and first to fifth class, non-glutinous brown rice.

^b Price for Thai white rice 5 per cent broken, taken from the Thai Board of Trade; average of monthly prices in April-March year, commencing in year shown.

na Not available.

SOURCE: ABARE, 1988, p. 108.

TABLE 7: Purchases of voluntary marketed rice and subsidies paid to its producers in Japan

Year	Planned purchases kt	Realised purchases kt	Farmer subsidies ¥b
1969	1 700	859	0.3
1970	1 700	1 692	2.8
1971	1 800	1 962	5.1
1972	2 150	1 960	21.6
1973	2 350	2 561	75.9
1974	2 400	2 704	113.6
1975	2 500	2 464	102.0
1976	2 500	2 391	114.2
1977	2 500	2 534	121.0
1978	2 550	2 878	154.5
1979	2 550	2 638	127.1
1980	2 650	2 860	136.0
1981	2 800	3 214	133.0
1982	2 900	3 483	121.8
1983	3 100	3 545	109.8
1984	3950	3 623	115.4
1985	3500	3 307	109.1
1986	3450	3495	98.3
1987	3600	3568	94.9
1988	4150	3955	96.8
1989	4300	4596	127.5

SOURCE: ABARE, 1988, p. 111, and MAFF(JFA).

TABLE 8: Japanese government purchase prices and selling prices for domestic wheat

Year	Parity price ¥/t	Subsidy ¥/t	Government purchase price ^a ¥/t	Government selling price ^a ¥/t	World indicator price ^b ¥/t	Cost of government control ¥/t	Government's loss ¥/t
1975	102 150	33 333	102 150 ^c	49 233	45 720	12 233	65 150
1976	109 567	38 333	109 567 ^c	54 533	32 389	13 100	68 133
1977	117 233	41 017	158 250	54 533	28 175	16 300	120 017
1978	119 667	41 867	161 534	54 133	28 207	19 450	126 850
1979	122 517	42 867	165 384	60 367	40 489	22 750	127 767
1980	135 533	42 867	178 400	60 367	40 489	22 750	127 767
1981	142 150	41 967	184 117	63 533	39 925	21 550	139 583
1982	143 517	40 600	184 117	68 733	39 461	25 750	141 133
1983	144 750	40 117	184 867	68 917	36 063	22 800	138 750
1984	145 867	39 000	184 867	68 917	36 801	26 750 ^d	142 700
1985	147 050	37 967	184 867	68 917	25 798	25 283 ^e	141 233
1986	146 750	35 967	182 717	68 917	16 784	na	na
1987	195 000	28 750	173 750	60 433	14 307	na	na
1988	--	--	165 750	57 200	na	23 498	132 048
1989	--	--	159 950	54 300	21 046	na	126 696

^a Government purchase and selling prices are base prices. Between 1975 and 1982 the prices are for 2nd sort 2nd class; since 1983 the prices are for 1st grade wheat excluding packing charge.

^b Price for US no. 2 hard red winter wheat (Gulf); average of monthly prices in July-June year commencing in year shown.

^c As explained in the text, the government purchase price does not include the subsidy.

^d Estimated.

^e Forecast.

na Not available.

SOURCE: ABARE, 1988, p. 125, and MAFF (JFA), 1990

TABLE 9: Japanese government purchase prices and selling prices for imported wheat

Year	Government purchase price ¥/t	Government selling price ¥/t	Cost of government control ¥/t	Government's profit (loss) ¥/t
1975	61 506	47 109	4 551	(18 948)
1976	53 955	60 987	4 936	2 096
1977	38 190	64 150	4 500	21 460
1978	35 320	64 067	4 711	24 036
1979	46 468	65 466	6 030	13 968
1980	54 032	73 209	6 488	12 689
1981	51 931	77 443	6 548	18 964
1982	51 609	78 459	6 579	20 271
1983	49 056	84 189	6 915	28 218
1984	47 690	84 255	6 293	30 272
1985	45 471	84 465	5 761	32 963
1986	28 770	83 808	5 380	49 658
1987	24 320	79 754	5 823	49 611
1988	28 320	75 794	6 606	40 868
1989	33 305	71 121	7 801	30 015
1990	36 269	68 478	7 953	24 256

f Forecasts at the time of drawing up the 1985 budget.

SOURCE: ABARE, 1988, p. 126, and MAFF, 1990.

TABLE 10: FOOD PRICES IN TOKYO ¹⁾

(CURRENT PRICES IN DOLLARS)

Commodity	Unit	Dollars
Steak, sirloin, boneless	KG	45.66
Pork, roast, boneless	KG	12.08
Broilers, whole	KG	5.03
Eggs, large	DZ	1.14
Butter	KG	9.12
Cheese, cheddar	KG	6.74
Milk, whole	LTR	1.19
Oil, cooking	LTR	1.97
Potatoes	KG	2.14
Apples	KG	3.60
Oranges	KG	3.57
Flour	KG	1.18
Rice	KG	2.27
Sugar	KG	1.55
Coffee	KG	20.08

¹⁾ Survey was conducted by the Agricultural Affairs Office, American Affairs Office, Tokyo, in May, 1990. Prices are averages from sampled supermarkets. Exchange rate: 159 yen = \$1.

**TABLE 11: ANNUAL PER CAPITA CONSUMPTION OF
SELECTED FOODS
IN JAPAN AND THE UNITED STATES**

(RETAIL WEIGHT IN POUNDS)

Commodity	JAPAN ¹⁾			U.S.
	1970	1980	1988 ²⁾	1988 ²⁾
Beef and Veal	5	8	12	69
Pork	12	21	25	45
Poultry	8	17	23	57
Eggs	32	32	36	31
Dairy Products	110	137	178	289
Fish	70	77	82	15
Rice	210	174	157	14
Potatoes	35	38	43	80
Wheat Flour	68	71	69	128
Fats and Oils	21	30	31	63
Sugar (Refined)	59	51	47	62
Fruit (Fresh)	84	85	85	93
Vegetables (Fresh)	252	243	242	90

¹⁾ JFY Basis.

²⁾ Preliminary.

SOURCES:

Japan - "Food Balance Sheets, JFY 1988," Ministry of Agriculture, Forestry and Fisheries.

U.S. - "Agricultural Statistics, 1989," U.S. Department of Agriculture.

Information provided by: Agricultural Affairs Office, American Embassy, Tokyo.

TABLE 12: JAPANESE WHEAT IMPORTS BY SOURCE

SOURCE	1980	1981	1982	1983	1984	1985	1986	1987	1988
Quantity, metric tons									
Australia	990,151	881,820	987,350	982,812	1,060,694	1,043,672	1,001,501	1,000,498	999,015
Canada	1,339,773	1,351,309	1,308,694	1,485,708	1,484,726	1,234,201	1,376,860	1,372,587	1,430,375
U.S.	3,352,376	3,394,374	3,417,255	3,347,809	3,432,904	3,231,741	3,241,279	3,102,960	3,294,313
Other	---	5,152	---	---	---	---	---	---	---
Total	5,682,300	5,632,655	5,713,299	5,816,329	5,978,324	5,509,614	5,619,640	5,476,045	5,723,703
Value in thousands of U.S. dollars									
Australia	205,218	192,177	184,676	181,826	185,955	172,552	143,233	132,642	169,752
Canada	322,777	348,522	285,360	309,364	314,291	249,177	253,337	227,287	297,153
U.S.	701,323	731,501	650,350	635,127	613,641	522,059	488,959	424,832	566,769
Other	---	1,007	---	---	---	---	---	---	---
Total	1,229,318	1,273,207	1,120,385	1,126,316	1,113,888	973,787	885,529	784,761	1,033,674
Unit value U.S. dollars/ton									
Australia	207.25	217.93	187.04	185.00	175.31	165.33	143.30	132.57	169.92
Canada	240.91	257.91	218.05	208.22	211.68	201.89	183.99	165.59	207.74
U.S.	209.20	215.50	184.46	189.71	178.75	161.54	150.85	136.91	172.04
Other	---	195.46	---	---	---	---	---	---	---
Total	216.34	226.04	196.10	193.64	186.32	176.74	157.76	143.30	180.59

SOURCE: U.N. Trade Data System

CHAPTER 7: The United States

THE UNITED STATES

Suchada V. Langley

INTRODUCTION

Modern agricultural policy in the United States began in the 1930s, and since 1933 more than 40 pieces of agricultural legislation have been enacted. Portions of many of these statutes have become a part of permanent legislation that includes the Agricultural Adjustment Act of 1938 (as amended), the Agricultural Act of 1949 (as amended), the Commodity Credit Corporation Charter Act of 1948 (as amended), and the Agricultural Trade, Development, and Assistance Act of 1954 (as amended). Agricultural programs in the 1980s were operated under the authority of permanent legislation, the Agriculture and Food Act of 1981 (as amended) and the Food Security Act of 1985 (as amended). Objectives of farm policy in the 1980s were to maintain and enhance farm income, conserve and protect cropland, and to be competitive in global markets. The Food, Agriculture, Conservation, and Trade Act of 1990, which is in effect from 1991 to 1995, continues these objectives.

The purpose of this chapter is to determine whether the trade-related activities of the Commodity Credit Corporation (CCC) may be characterized as state trading. The wheat market is selected as the focal point. As defined in Chapter II of this publication, state trading occurs when a government, an agency of government or an institution granted exclusive right by government controls or materially affects the conditions of trade on a transaction by transaction basis. This is distinct from trade conducted by private enterprise without direct involvement by government in individual transactions.

This chapter includes a discussion of domestic wheat programs, market trends, trade flows, CCC's export programs, long-term bilateral grain agreements, operating characteristics of the CCC, and a summary and evaluation.

The CCC is Government-owned and operated. The CCC was created in 1933 to help "stabilize and support farm prices and income, and to help maintain balanced supplies and the orderly distribution of agricultural commodities." The CCC is the government's financing arm for domestic and international farm programs [19]. CCC operations include commodity support activities, inventory and disposal operations, domestic programs, and export programs.

The commodity support operations include loan, purchase, and payment programs. Programs are offered for wheat, corn, sorghum, barley, oats, cotton, rice, soybeans, tobacco, wool and mohair, rye, peanuts, honey and sugar, milk, and milk products. Loan rates are set to keep commodities competitive; and target prices, where applicable, are set by law. Commodity and farm storage facility loans and the Farmer-Owned Reserve are operated to encourage farmers to store designated commodities when supplies are in excess.

CCC acquires inventory either through forfeiture or purchase. Commodities pledged as collateral for support loans are taken over by the CCC if the commodities are not redeemed by loan repayment. Loans to producers are nonrecourse in that the government has no option but to accept the collateral as full repayment for

the loans if producers do not repay them. Prices of some commodities are supported through purchases of the commodities from producers. The CCC is authorized to sell, donate, or transfer commodities out of its inventory. Sales by the CCC are made either at fixed prices or through competitive bids. Generally, sales are required to be at levels above the loan rate plus reasonable carrying charges. CCC pricing policy is established to protect CCC's investment in the commodity, to stabilize prices, and to prevent any interference with commercial trade. The CCC is authorized to donate food commodities through various domestic and foreign programs. CCC inventories are also used for various certificate and export programs.

WHEAT PROGRAMS, TRENDS, AND TRADE FLOWS

The extent of the CCC's involvement in U.S. agriculture and particularly in U.S. trade depends on mandates from the U.S. Congress through farm legislation and the discretion of the Secretary of Agriculture. In addition to the omnibus farm legislation every four or five years, Congress often amends farm legislation to accommodate the changing conditions in the farm sector. For example, the Food Security Act of 1985 emphasized farm credit and market orientation in light of U.S. export and farm financial conditions during the first half of the 1980s. The Omnibus Trade and Competitiveness Act of 1988 was enacted to enhance the competitiveness of U.S. industries. The 1990 farm legislation authorizes commodity programs from 1991 to 1995. Maintaining market orientation and competitiveness are major objectives of the new farm bill.

Evolution of U.S. Agricultural Policy in the 1980s

Agricultural policies and programs in the 1980s responded to the surplus of commodities in the beginning of the 1980s, the farm financial crisis, the loss of international market share, and major

drought in 1988. The major U.S. farm programs include price and income support policies, supply control programs, stock management, and export assistance programs. Policy makers have struggled over the years to establish and specify a formula for price support levels or loan rates. High costs of production in the late 1970s led policy makers to set loan rates at levels above world market prices under the 1981 Act. As a result, high loan rates encouraged production and priced the United States out of the world markets. The United States also lost international market share as U.S. commodity prices were higher than those of its competitors. To regain market share, the 1985 Act lowered loan rates, linking the price support levels to market prices. The formula for establishing loan rates in the 1985 Act was 75 to 85 percent of moving average of market prices. The intent was that the loan rate would no longer act as a price floor, but rather allow commodity prices to fall to world market levels. The 1990 Act continues to link loan rates to market prices.

The target price program, which was enacted in the 1973 Act, is a policy instrument for direct income support through deficiency payments. The commodity shortages of the early 1970s were a primary reason for the government to provide additional support to encourage production. Target prices continue as the cornerstone of the U.S. income support programs. Setting target price levels remains an issue for policy makers.

To prevent oversupply, the United States implements acreage limitation programs for farmers who enroll in government programs. A more flexible planting program, allowing farmers to choose what to plant according to market returns, is implemented under the 1990 Act. A supply management mechanism was implemented through the use of generic certificates in the second half of the 1980s. The objective of certificates is to increase market access to government stocks when needed. Generic commodity certificates may be exchanged for CCC-owned commodities or used

to redeem loans. The generic certificate program augments producers' ability to plan their operations and to strengthen producers' marketing position. It reduces the risk of defaults on grain loans, and provides program participants a chance to make use of arbitrage. Generic certificates also reduce CCC stocks and make more commodities available for export. The Government issued generic certificates as bonuses to U.S. exporters under the Export Enhancement Program (EEP). Both CCC inventory sales and commodity exchanges for certificates during fiscal years 1988 and 1989 were about \$8.2 billion [6].

The declining U.S. market share of world agricultural trade in the early 1980s prompted legislation to increase exports and, hence, increase the CCC involvement in trade. To promote export activities, USDA extends credit guarantees to banks financing U.S. exports by agricultural exporters. Under these export credit guarantee programs, U.S. exporters or their lenders receive payments if buyers fail to pay. The programs reduce the financial risk that exporters and their banks face. Two export credit guarantee programs provide short-term guarantees and medium-term guarantees.

USDA announced the Export Enhancement Program (EEP) on May 15, 1985, and the program was authorized under the 1985 Act. The program was designed to counter the export subsidies of other countries and to reinforce the need for negotiation on agricultural trade problems. The 1985 Act made the EEP mandatory through fiscal year 1988 with \$1-1.5 billion financial support annually. The Omnibus Trade and Competitiveness Act of 1988 increased the funding level to \$2.5 billion and extended the program through 1990. The 1990 Farm Bill extends the EEP through 1995.

Domestic Wheat Programs and Changes Under the 1990 Farm Bill

Because of excess capacity in U.S. agriculture, production control programs such as the Acreage Reduction Program (ARP) and Paid Land Diversion program have been implemented and likely will continue to be used in the United States. Under the 1985 Act, U.S. wheat producers could also participate in an acreage diversion program such as 50/92 or 0/92 when offered¹. Under 50/92, producers could plant between 50 and 92 percent of their permitted acres and receive deficiency payments on 92 percent if the remaining acres were devoted to conserving use. Under the 0/92 program, participating producers could plant nothing and receive 92 percent of payments, and again they were required to devote the remaining acreage to conserving use. Under the 1990 Farm Bill and the Budget Reconciliation Act, if wheat, feed grain, rice and cotton farmers choose to participate in the government farm programs, they have to comply with the acreage reduction requirements. In addition, it is mandatory that 15 percent of their crop acreage base be planted to any crop except fruits and vegetables without receiving deficiency payments. The producer has the option of planting an additional 10 percent of their crop base to an alternative crop, but must forgo deficiency payments on those acres planted to an alternative crop. Table 1 shows levels of policy instrument variables such as loan rates, target prices, ARP percentages, and total program payments for wheat during the crop years 1980-90.

The 1985 Act tied basic loan rates to an average of past market prices. The Secretary of Agriculture had the authority to reduce loan rates (Findley option) further. Wheat loan rates dropped from \$3.30 to \$2.40 per bushel from 1985/86 to 1986/87, the first year that the 1985 Act was in effect. Wheat loan rates could have been reduced up to 5 percent per year from the 1986 level. Because of the dramatic decline in loan rates, the gap between target prices and loan

rates remained wide under the life of the 1985 Act. Because of higher wheat market prices since 1988, wheat deficiency payment rates have declined from the 1986-87 levels (Table 1).

The 1990 Farm Act will continue the basic price and income support programs for food and feed grains with some modifications. Price support under the 1990 Farm Bill for wheat and feed grains are set at 85 percent of a five-year moving average of market prices, excluding the high and low years, with Secretarial discretion to drop the loan rate by up to 20 percent based on the stock to use ratio. Target prices under the 1990 Farm bill are frozen at 1990 levels for 1991 through 1995 crops. Payment yields are frozen at 1990 payment levels.

U.S. Wheat Markets in the 1980s

History will mark the 1980s as a turbulent decade for U.S. agriculture. What happened in the U.S. wheat market mirrored the agricultural sector as a whole. The economic trauma that faced agriculture in the first half of the 1980s was rooted in previous decades [10]. Farmers' expectations in the first half of the 1980s were driven by the commodity price boom and high land prices evidenced in the 1970s, purchases by the Soviet Union and other centrally planned economies, the switch from fixed to flexible exchange rates, the OPEC oil embargo in the early 1970s, and higher demand for U.S. agricultural products. U.S. macroeconomic policies in the 1970s reinforced the effects of those events on agriculture. With easy monetary policies and relatively low real interest rates, many farmers borrowed heavily to invest in farmland. Because of higher commodity prices and higher farmland demand, average farm values increased by over 350 percent during the decade of the 1970s.

Debt-financed land expansion, which was financially rewarding in the 1970s, turned out to be a burden in the first half of the 1980s when world commodity prices sagged over 20 percent

because of global recession and weak international demand. Rigid U.S. loan rates under the 1981 Act prevented U.S. commodity prices from adjusting to lower world market prices. With the high value of the dollar, a global glut of commodities, strong competition from other countries, and the Latin-American debt crisis, the United States lost market share--from 44 percent in 1981 to 27 percent in 1986 in the wheat market and from 54 percent to 48 percent in coarse grains during the same period. As a result, the CCC became a residual buyer of U.S. commodities and accumulated a high volume of stocks of all major commodities including wheat (Tables 2 and 11). The U.S. Government also tried to increase export sales by providing attractive credit packages. As a result, Government exports under the Export Credit Guarantee Program (GSM-102 and GSM-103) for all commodities including wheat increased significantly (Figure 1 and Table 3). Other domestic measures such as the 1983 Payment-In-Kind Programs (PIK) were also implemented to eliminate excess stocks.

Wheat Market Trends

Wheat planted and harvested area increased during the 1970s and during the first half of the 1980s. Wheat harvested area in the Great Plains² was about 70 percent of the total during the 1970s, with a slight decline in the late 1980s. Because of a change to double-cropping, harvested area in the South³ has been increasing during the 1980s. Wheat yields have also been increasing since the 1970s. Historically, wheat yields have been increasing at about 3 percent per year, mainly as a result of plant breeding [7]. Average wheat yields in the United States have ranged from 34-39 bushels per acre in the 1980s. About 60 percent of wheat is used for food, the rest is for feed, seed, and some industrial purposes. Wheat flour consumption increased to 128 pounds per person during 1980-88 from 117 pounds in the previous decade.

In response to international and domestic pressures and the need to meet international competitiveness, the 1985 Act (as amended) reduced loan rates, subsidized exports through the Export Enhancement Programs (EEP) and export credit guarantees programs, and implemented generic certificates to cope with excess stocks. With export assistance programs, lower loan rates, strong demand, and a favorable exchange value of the dollar, wheat exports in the second half of the 1980s rebounded over 12 percent a year. From 1986 to 1987, wheat exports increased almost 35 percent. The U.S. wheat market share averaged over 36 percent during 1986-89. With major drought conditions and increased wheat exports, wheat stocks declined to 318 million bushels (8.6 million metric tons) in the 1989/90 marketing year (Table 2).

Wheat Trade Flow

Major U.S. wheat importers in the 1980s were the Soviet Union, China, Japan, South Korea, Egypt, Brazil, Morocco, Nigeria, India, Algeria, Bangladesh, the Philippines, and Venezuela. Most of these countries continued as U.S. markets in the second half of the 1980s. South Korea, Egypt, Morocco, and Algeria are recipients of export credits under the GSM programs (Table 4 and 7). China and the Soviet Union imports fall under bilateral trade agreements. Bangladesh, Brazil, India, Indonesia, and Nigeria declined as markets during the 1986-88 period.

U.S. Agricultural Trade Policy

The CCC Charter Act of 1948 (as amended), the Agricultural Trade Development and Assistance Act of 1948 (as amended), the 1985 Food Security Act (as amended), the Omnibus Trade and Competitiveness Act of 1988, and the 1990 Food, Agriculture, Conservation and Trade Act, provide authority for the executive branch to manage and operate the nation's trade policy. Import protection for commodities, such as sugar

and dairy, is authorized by Section 22 of the Agricultural Adjustment Act of 1933, as amended in 1935. The CCC Charter Act provides USDA with authority to establish and administer trade programs. Export credit guarantee programs are authorized by the CCC Charter Act, as amended by the Food For Peace Act of 1966, the 1985 Act and the 1990 Act. The 1985 and the 1990 Act provide USDA the authority to run the EEP and Targeted Export Assistance Program (TEA program is renamed the Market Promotion Program under the 1990 Farm Bill). The Omnibus Trade Act of 1988 provides the President with the authority to negotiate trade reform under the General Agreement on Tariffs and Trade (GATT).

As mentioned earlier, maintaining farm income, conserving and protecting cropland, and being competitive in world markets are major goals of U.S. farm programs. U.S. agricultural trade policies in the past three decades have mirrored Government intervention in domestic markets. Although some domestic supply controls such as acreage reduction programs are carried out, they may not be sufficient to offset the production inducing effects of commodity support programs. When commodity supplies are abundant and stocks accumulate, export subsidies are implemented. Credits are provided to enhance commodity sales. In recent years, credit guarantees have been provided whether stocks were large or not. In past decades direct credit was offered rather than guaranteed. Examples of export subsidy programs in the 1980s were the EEP and the Export Credit Guarantee Programs under GSM-102 and GSM-103. Skully [18] demonstrated that the CCC export policy is endogenous resulting from domestic price and income support programs that result in higher CCC stocks.

The objective of Title IV, Agricultural Trade, of the Omnibus Trade and Competitiveness Act of 1988 is to (1) "increase the effectiveness of the Department of Agriculture in agricultural trade policy formation and implementation and in

assisting U.S. agricultural producers to participate in international agricultural trade by strengthening the operations of the Department, and (2) to improve the competitiveness of U.S. agricultural commodities and products in the world market." The Trade Act of 1988 contains a provision which triggers marketing loans for wheat, feed grains, and soybeans, and export enhancement programs. The marketing loans could be implemented if significant progress on the GATT negotiations has not been made. The Act emphasizes that a specified allocation of credit guarantees under the export credit guarantee program should be made on a country-only basis. Priorities for sales under the Export Enhancement Program would be based on countries that have traditionally purchased U.S. agricultural commodities and products.

The United States has carried out some import-related programs such as sugar and meat import quota programs. These programs aim at limiting access to U.S. markets to protect domestic producers through the use of quotas. Details of U.S. export programs under the CCC are in the next section of this chapter.

CCC PROGRAMS IN INTERNATIONAL MARKETS

The involvement of the U.S. Government in international trade depends on economic and political conditions at home and abroad. Government objectives and the levels of involvement change over time as these conditions change. The objectives in the 1940s, 1950s, and 1960s were to dispose of surplus commodities, provide food aid to meet humanitarian concerns, and promote long-term market development. In the 1980s, the objectives of these programs and initiatives were to increase market share, seek new markets, provide food needs, and increase U.S. negotiators' leverage in trade negotiations at the GATT. The U.S. Government encourages export expansion through various programs and initiatives. Export assistance programs include

U.S. food aid and the Government's sales to other governments and private organizations.

U.S. Government export assistance before the 1960s originated from agricultural surpluses at home. To increase sales and provide outlets of surplus commodities, the Government subsidized prices and provided short and long-term credit guarantees and grant donations of commodities to needy nations. After World War II, U.S. export programs were viewed as a means to ease food shortages in other nations. Those exports were financed by grants and loans from the United States. The CCC was also authorized to donate excess commodities under Section 416 of the Agricultural Act of 1949.

During this time, barter authority also was authorized to exchange CCC stocks for strategic products. Other programs eliminating surplus commodities were sales abroad for foreign currencies. Export subsidies were implemented under Section 32 to help U.S. exporters compete in world markets. Wheat export subsidy programs were implemented during 1948-54. Export subsidies were essential because U.S. commodity prices were above world prices. Other Government programs were concessional sales and donations under the Agricultural Trade Development and Assistance Act of 1954, PL480. PL480 was enacted to dispose of surplus commodities from the CCC and to develop new markets for U.S. products [17]. To combat high domestic stock levels and aggressive foreign competitors, the 1985 Act enacted three main export programs, the EEP, the GSM-103 program, and the Targeted Export Assistance Program (TEA) [1 and 13]. These programs were designed to meet price competition and to meet importers' need for credit.

U.S. Food Aid Programs

Food aid is operated through PL480, the Food for Peace Program, and through section 416(b) of the Agricultural Act of 1949, as amended. PL480, passed in 1954, brought all the operating

export programs under an umbrella program. Still, PL480 was viewed as a surplus disposal program. A major change came in 1966 when the Food for Peace Act was passed. Title I of PL480 was the original core of the program, authorizing sales of surplus commodities for foreign currency to market economy countries. Under Title I, the United States provides long-term and low interest rates with grace periods for the purchase of U.S. agricultural commodities. Foreign currencies which were generated from the sale were allocated to economic development aid to recipient countries for increasing production, improving storage, transportation, and other facilities related to farm production.

To help developing countries cope with the lack of hard currency, sales for foreign currency were made under Title I. These foreign currency sales were later replaced by credit sales (Table 7-7, page 271, Cochrane and Ryan). Long-term credit sales and government-to-government sales were authorized in 1959 and broadened in 1962 to authorize sales between the United States and private traders in the U.S. or friendly nations. The agreements specified delivery schedules, repayment terms, and how the importing countries or private trade entities would use the revenues generated by the local sales of the commodities. Long-term credit sales substituted for foreign currency sales, and long term credit sales were 68 percent of PL480 sales in fiscal year 1973 while foreign currency sales and Title II and III donations made up the rest (Figure 1 and Table 5).

The United States is the world's largest food aid donor. Since 1980, the United States has shipped over \$13 billion of agricultural commodities through concessional sales (Table 5). In 1985, the United States accounted for 61.5 percent of world grain aid while Canada and the EC accounted for 10.4 and 6.8 percent, respectively [17].

Foreign donations were authorized under Title II of PL480 and Section 416 (b). Title II

provided food to governments and grants for emergency relief to multilateral organizations such as UNICEF. Donations are also made to needy nations through voluntary agencies under the Food for Development Program.

Roughly 80 percent of U.S. food donations have gone to developing countries. Countries in Asia and Latin America were prime recipients during the 1950s and 1960s. Sub-Saharan Africa was a major recipient during the 1970s and 1980s. Some of the leading recipients since the start of the donation program are India, Morocco, Pakistan, South Korea, Egypt, and Bangladesh. Wheat and wheat products make up about half of U.S. food donations. Other commodities are vegetable oils, and feed grains and products. About three-fifths of U.S. food donations are made through nonprofit and voluntary U.S. agencies such as CARE, Catholic Relief Services, Church World Services, American Joint Distribution Committee, Seventh Day Adventist World Services, and the Cooperative League for the United States of America.

Section 416(b) provides for overseas donations of CCC surplus commodities. In 1982, Section 416 (b) was amended to allow overseas donations of CCC-owned dairy products. About 1.4 million tons of wheat and wheat products were authorized under Section 416 (b) in fiscal year 1988. Because of drought, no wheat was provided in 1989.

Under the Food Security Act of 1985, PL480 was amended to allow countries to repay long-term loans under Title I with local foreign currencies. The U.S. Government extends loans of foreign currencies to financial intermediaries which in turn lend the funds to private enterprises in the recipient countries. Commodities sold for foreign currencies or donated must be shipped on U.S. flag vessels.

Impacts of Food Aid Programs on Domestic Markets

The impacts of food aid programs on domestic markets depend on additionality, or the ability to avoid displacing commercial exports. Effects of food aid on U.S. domestic price also depend not only on the shifts in the excess supply curve for the U.S. and the excess demand curve, but on whether market equilibrium prices are initially at the loan rate. When the equilibrium price is at the loan rate, food aid has no effect on domestic commodity prices. If the equilibrium price is above the loan rate, food aid will have direct price effects. Food aid has direct effects on exports and CCC inventory levels regardless of whether the market price is at or above the loan rate. Therefore, food donation occurring when there is an excess supply of commodities will have minimum effects on domestic commodity prices regardless of the degree of additionality. Empirical evidence indicates that Food Aid expanded U.S. wheat exports by 7 to 15 percent and increased domestic wheat prices by 2 to 8 percent during 1986 to 1988 marketing years [14].

CCC Credit Sales

The U.S. Government has used credit guarantees to help U.S. exporters meet foreign competition and to help importing countries purchase U.S. commercial exports. The CCC Export Credit Sales Program was first implemented in 1956 to finance commercial exports from private stocks. The terms of credit ranged from one to three years. Interest rates were set below market rates. The General Sales Manager (GSM) programs make guarantees to commercial banks that the U.S. Government will pay 98 percent of principal and interest if borrowers default on loans. The loan rates under the GSM programs are about 15-25 basis points above the London Inter-Bank Offered Rate (LIBOR) [18]. Because most of GSM recipients are poor credit risks, credits provided under the programs are basically subsidized.

Currently, the Foreign Agricultural Service of the Department of Agriculture operates two credit guarantee programs for the CCC through the Office of the General Sales Manager. The Export Credit Guarantee Programs (GSM-102 and GSM-103) allow foreign buyers to purchase U.S. agricultural commodities from U.S. exporters with loans from commercial banks. The CCC Export Credit Guarantee Program (GSM-102), in operation since 1981, guarantees repayment of credit extended for up to three years. The Food Security Act of 1985 authorizes the Intermediate Export Guarantee Program (GSM-103) which guarantees repayment of private credit extended for 3-10 years. The CCC guarantees risk of loan default. Without such guarantees, private banks may be reluctant to finance purchases. Both GSM-102 and GSM-103 are designed to help targeted countries repay loans for agricultural commodities.

Total wheat exports under the credit programs have increased tremendously since 1983 when competition in world markets was keen. Table 6 shows the quantity of wheat exports under credit programs since fiscal year 1960. The percentage of wheat exports under credit programs to total wheat exports in the 1980s has ranged from about 8 percent in 1981 and 1982 to about 31 percent in 1986 and down to 23 percent in 1989. The average since 1986 was about 27 percent. Wheat exports under the credit programs increased over 130 percent in 1983 from fiscal year 1982 and 33 percent in 1984 from the previous year. The annual increase from fiscal 1983 to 1988 was 94 percent. Major recipients since 1980 have been Brazil, South Korea, Morocco, Egypt, Iraq, and Algeria. All, except Brazil, have also been significant recipients since 1986 (Table 7). In certain years, some of these countries were also targeted under the EEP. South Korea was never targeted under EEP. Egypt, Morocco, Iraq, and Algeria have been active importers under the EEP. Iraq is no longer a program participant. Brazil purchased wheat under the EEP in 1987/88 and is a current participant. USDA is authorized to provide \$5

billion a year under GSM-102 in 1989 and 1990.

Impacts of CCC Credit Sales on Domestic Markets

CCC credit sales directly affect the levels of exports and commercial stocks. The CCC export guarantees are credit subsidy programs that promote U.S. agricultural exports. Except in 1971 and 1973, wheat exports under the credit programs before 1981 were less than 10 percent of total wheat exports. Wheat exports under the credit programs in the 1980s were about a fourth of the total (Table 6).

The effects of export credit programs were simulated using an econometric model, the Food and Agricultural Policy Simulator (FAPSIM).⁴ The results illustrated that if there were no export credit programs in 1986 to 1989, more wheat would have remained in inventories--Farmer-Owned Reserve (FOR) or CCC stocks -- CCC would have had higher outlays (higher deficiency payments) because of lower wheat prices. In a "no export credit program scenario", the model shows that wheat prices would have declined 5 to 13 percent between fiscal years 1987 and 1989. Because wheat market price was below the loan rate in 1986 fiscal year (1985 crop year), there was no price effect. Deficiency payments under the "no export credit program scenario" increased about 42 percent during the same period. Because of lower wheat prices under the "no export credit program" scenario, some farmers would have forfeited their commodities to the CCC. Hence, total government costs might have been higher.

Higher wheat prices as a result of the export credit programs have benefitted U.S. wheat producers at the expense of U.S. wheat consumers. Foreign consumers too have benefitted from the program through gaining more access to U.S. wheat at affordable prices. Because the programs subsidize credits, foreign wheat producers would lose their competitive

edge if their selling prices were higher than the U.S. prices.

Export Enhancement Program

Under the EEP, exporters are awarded export bonuses in generic certificates which can be redeemed for CCC-owned surplus commodities. The bonuses awarded make U.S. exporters more competitive in targeted foreign countries. The bonuses cover the difference between the sale price of wheat in the targeted markets and the price paid in the U.S. market.

The Cabinet-level Economic Policy Council established guidelines for targeted countries under the EEP. The 1985 Act provided \$2 billion worth of surplus commodities for the program. The 1986 Act reduced EEP funding to \$1-\$1.5 billion. In July 1987, USDA announced that the program would continue under the CCC if the authorized funds had been exhausted. The Omnibus Trade and Competitiveness Act of 1988 provided an additional \$1 billion for the program and extended it through fiscal year 1990. During fiscal year 1990, the U.S. Congress limited funding to \$566 million. As of May 10, 1990, total sales value of all commodities were \$10.3 billion, \$2.7 billion of which accounted for the market value of awards. Average wheat bonuses were 20, 25, 47, 29, and 13 percent of the sale price over 1985 to 1989 (Table 8). Cargill Inc., Continental Grain Co., and Louis Dreyfus Corp. ranked first to third, accounting for 33 percent of the total in terms of bonus value received, as of February 1989 [5].

Targeted countries for wheat under the EEP were Algeria, China, Egypt, India, Iraq, Mexico, Morocco, the Soviet Union, and Tunisia. By December 31, 1990, about 76 million metric tons of wheat and wheat flour were shipped to North Africa (27 percent)⁵, the Middle East (6.4 percent), eastern Europe (4.1 percent), the Soviet Union (28 percent), China (21.5 percent), Asia (8.8 percent), and Latin America (2.8 percent).

Wheat accounted for 78 percent of the total commodities sold under the EEP.

In 1985, the first year that EEP was offered, Egypt purchased 500 thousand metric tons at an average bonus of \$22.15 per ton. North African and Middle East countries such as Algeria, Egypt, Morocco, Tunisia, and Turkey were primary buyers in fiscal year 1986 with an average bonus ranging from \$23.41 to \$ 34.18 per ton. The big push in EEP sales came in fiscal years 1987 and 1988 when EEP was offered to the Soviet Union and China. The average bonus reached a peak of \$38.35 in fiscal year 1987 and total wheat sales accumulated to 26 million metric tons in fiscal year 1988 with an average bonus of \$30.89 per tons. Average EEP bonus from 1985 to 1990 was \$26.5 per ton.

The EEP has affected the level of the EC restitutions [8]. The EC spent \$365 million in restitutions in calendar year 1985 and the subsidies were increased to \$1.8 billion in 1988. In addition to EEP, lower U.S. loan rates and the lower exchange values of the U.S. dollar contributed to the increase in EC export subsidies.

How EEP Works

An announcement of an EEP initiative begins with the development of a proposal within USDA. Upon receiving proposals for targeted countries and commodities from members of the U.S. agricultural community, USDA program experts, or U.S. Government officials, or the Foreign Agricultural Service (FAS) forwards the proposals with comments and recommendations to Agriculture's Under Secretary for International Affairs and Commodity Programs. The proposal is presented to the Trade Policy Review Group which consists of representatives from the Department of Agriculture, U.S. Trade Representative (chair), Department of State, Office of Management and Budget, Department of Treasury, Department of Commerce, National

Security Council, and the Council of Economic Advisors. If approved, USDA announces the initiative. FAS establishes a minimum acceptable price⁶ that is competitive with U.S. competitors in each targeted market. Maximum bonuses for commodities sold are calculated from the difference between U.S. domestic prices (plus freight and handling) and competitor's delivered prices.

U.S. exporters compete for sales through an FAS-administered bidding process. U.S. exporters negotiate sales prices with an importer and then submit the bid to FAS. FAS accepts the bid if the bidding price is greater than FAS's minimum price and the exporter's bonus is less than FAS's maximum bonus. Contracts are awarded to all acceptable bids in ascending order of bonus bidders until the approved quantity is filled.

Impacts of the EEP on the Wheat Market

Because a few countries dominate the world wheat market, a change in wheat policy of any one country will have an effect on others. A major objective of the 1985 Act was to restore U.S. competitiveness. The Export Enhancement Program (EEP) was designed to counteract the European Community (EC) export subsidies by providing export bonuses for various commodities including wheat. U.S. wheat exports have increased significantly. Over 61 percent of total wheat exports were under EEP in fiscal year 1988. The growth of U.S. agricultural exports from 1985 to 1988 was influenced by many factors--lower loan rates, favorable exchange values of the dollar, expanded trade with the Soviet Union and China, U.S. export programs, and higher world demand. A number of studies have shown that EEP increased U.S. wheat exports, prices, and export revenues. The magnitude of the increase varies from year to year depending on market conditions and assumptions made in the studies [11]. During 1986 to 1988, wheat exports volume increased ranging from 7 to 30 percent.

Because releasing EEP bonus commodities from Government storage depressed domestic wheat prices, overall wheat price rose only slightly as a result of EEP during 1985 to 1987. As a result, export revenues increased slightly. It has been estimated that lower loan rates contributed just over 24 percent of the growth during the period and that trade agreements with the Soviet Union and China accounted for about 36 percent [3]. Another study showed that the EEP program increased exports by 55 to 189 million bushels and raised U.S. wheat prices by as much as \$0.28 per bushel, but lowered world prices by \$0.17 to \$0.48 per bushel [16].

LONG-TERM BILATERAL GRAIN AGREEMENTS (LBGA)

The United States has engaged in Long-term Bilateral Grain Agreements with the Soviet Union (USSR) and the People's Republic of China (PRC). The U.S. Government Accounting Office (GAO) reported that during the 1980s the minimum purchase volumes specified in bilateral agreements represented a little over 20 percent of wheat and coarse grain traded on the world market [4]. Argentina, Australia, and Canada have used long-term bilateral grain agreements⁷ more extensively than the United States. Since 1983, minimum wheat and coarse grain export volumes accounted for 40 percent of their total grain exports compared to a 14 percent average for minimum wheat and corn exports under U.S. bilateral grain agreements. Because of the oversupply of grain in the world market, trade volume under long-term bilateral grain agreements have declined since 1985. GAO reported that global economic recession in 1981, debt problems in grain trading partners, slow economic growth, and food self-sufficiency policies contributed to alternative trading practices such as LBGAs and countertrade in international grain trade. From January 1983 to August 1986, the United States signed 3 LBGAs, compared with 16 for Australia, 16 for Canada, and 13 for Argentina.

The objectives of U.S. long-term bilateral grain agreements with the USSR and the PRC were:

- to establish a mechanism for close communication with these two countries;
- to minimize the unexpected occurrence of large sales;
- to stabilize U.S. domestic prices; and
- to expand agricultural export markets.

U.S.-USSR Long-term Grain Agreements

The first Long-term Bilateral Grain Agreement (LBGA) with the USSR was signed in 1976. The Soviet Union committed to purchase annually at least 6 million metric tons of wheat and corn at prevailing world market prices for a 5 year period. The sales were made from private sources. Table 9 shows that actual purchases exceeded the minimum requirement.

The second LBGA was signed in 1983 with a 9 million metric tons annual purchase quantity of wheat and corn. Minimum purchases in the agreement were specified as no less than 4 million metric tons for wheat and 4 million metric tons for corn. Actual purchases in 1983/84 and 1984/85 significantly exceeded the amount specified in the contract. Wheat purchased in 1985/86 was below the minimum quantity because the Soviet Union bought wheat from lower priced foreign suppliers. Actual purchases by the USSR from 1987 to 1990 averaged nearly 21 percent of total U.S. wheat and corn exports.

U.S.-PRC Long-term Grain Agreement

A U.S.-PRC grain agreement began in January 1981 with annual grain purchases between 6 million metric tons of wheat and 8 million metric tons of corn. Transactions were made at prevailing market prices. The amount of wheat

and corn purchased in the period 1981 and 1984 in relation to the required limit is shown in (Table 10).

GENERAL OPERATING CHARACTERISTICS OF THE CCC

Commodities traded through the CCC export assistance programs come from both CCC-owned and commercial stocks. Major objectives of U.S. stock management programs are to assure adequate supplies and to reduce market price and income variability. Domestic farm programs such as land retirement, acreage control programs, and target prices are used to support prices and farm income. In spite of production control provisions, these programs have encouraged farmers to produce more than demanded. As a result, there have been large accumulations of stocks owned by the CCC. Table 11 shows CCC inventory for wheat during the 1960-89 period. The CCC is authorized to reduce its stocks by selling, donating, and subsidizing commodities through domestic and international programs. Other means for disposal of surplus commodities are direct loan guarantees, Payment-In-Kind, and Government aid. Legislation prohibits domestic bargain sales of CCC-owned commodities. The minimum domestic sales price was 115 percent of the current national average loan rate plus carrying costs for 1974-77 crops, 150 percent of the loan rates for 1978-80 crops, and 110 percent of the FOR release price for 1981-85 crops.

The CCC is operated by an eight-member Board of Directors headed by the Secretary of Agriculture and appointed by the President. All members of the board, along with 16 officers, are officials of the Department of Agriculture. The CCC programs are carried out by the Agricultural Stabilization and Conservation Service (ASCS) and the Foreign Agricultural Service (FAS). The Corporation's officers also work with other government agencies and private organizations to dispose of surplus commodities. CCC also uses private commercial banks,

growers' organizations, cooperatives, warehouses, and exporters to carry out its operations.

The Corporation finances its operations by borrowing from the U.S. Treasury. Up to \$30 billion is authorized to the CCC. The CCC pays interest rates to the Treasury on the amount borrowed and sets interest rates on its loans to producers based on what it is charged by the Treasury. Total net CCC outlays for CCC programs in 1989 were \$10.5 billion. Most of these outlays were for domestic related programs. Commodity inventories were valued at \$3.8 billion in the same year. Based on these figures, one could say that the CCC is one of the largest and most active government-owned enterprises in the world.

SUMMARY AND EVALUATION

As one of the biggest commodity trading enterprises, CCC directly markets through commodity support and inventory operations, domestic certificates, and export programs. The CCC's main activities are to manage government stocks to stabilize commodity prices. Farmers who enroll in government programs can obtain loans from the CCC at prevailing loan rates. They have the option to either pay back their loans with interest and sell the commodities at higher market prices or forfeit commodities to the CCC if market prices are lower than the loan rates. To channel government-owned commodities to the market, the CCC makes use of commodity certificates (or generic certificates) for direct income payments or the payment of EEP bonuses. Those who receive the certificates can exchange them for CCC-owned commodities or can redeem them for cash if they are the first handler of the certificates. Export assistance programs at one time were viewed as a way to eliminate CCC stocks. However, in the 1980s the objectives of the export assistance programs changed to expand U.S. markets and to counteract unfair competition.

Although the CCC does not engage in physical export activities, its export assistance programs affect exports, private inventories, and the terms of international transactions including prices and quantities. Operational details are carried out by commercial exporters.

The role of the CCC in U.S. agriculture in the 1980s was extensive. High net outlays of its programs reflect the extent of its involvement--\$25.8, \$22.4, \$12.5, and \$10.5 billion, respectively, in the fiscal years 1986 through 1989. Most of these expenditures related to entitlement domestic price and income support and domestic food assistance programs. CCC's involvement in exporting commodities is most active when there are high volumes of commodities in its stocks and in the market. In the case of wheat, its export programs do have an impact on domestic and international markets and much of its trading activity clearly affects the terms of individual transactions.

ENDNOTES

1. The 50/92 program was in effect for the 1986-87 wheat crops while the 0/92 program was in effect for the 1988-90 crops.
2. Colorado, Kansas, Montana, Nebraska, Oklahoma, South Dakota, Texas, and Wyoming.
3. Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.
4. FAPSIM is an annual econometric model of the agricultural sector designed, primarily, to analyze U.S. domestic agricultural policies and programs [15]. FAPSIM can also be used to analyze exogenous shifts in supply and demand relationships. To measure the effects of the CCC export credit programs, the model is simulated to generate a baseline set of prices and quantities of all existing policies and programs. An exogenous shift downward in export demand is imposed to the model for "no export credit program" scenario. The model with the shifted export demand is, then, simulated to obtain prices and quantities of the "no export credit program" scenario. An increase or decrease due to export credit programs is examined by comparing prices and quantities under the two simulations. This is the first order effects of the programs.
5. Numbers in parentheses represent percent of total wheat shipment under the program.
6. FAS establishes minimum prices and maximum bonuses for commodities sold. Minimum acceptable prices are competitive with other competitors. Maximum bonuses are the difference between the minimum prices plus freight and handling and the competitors' delivered prices.
7. A Long-Term Bilateral Grain Agreement (LBGA) is a contract between two countries specifying the quantity of a commodity to be traded over a certain period of time, usually for a period of 3 to 5 years. The agreements normally specify the minimum quantity to be purchased and the maximum quantity to be supplied.

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Year	Loan rates, \$/bu.	Target prices, \$/bu.	Deficiency payments, \$/bu.	ARPs' levels, %	Diversion payment rates, \$/bu.	Program participation, %	Total payments, mil. dol.
1980	3.00/3.30 ¹	3.63/3.08 ²	0.00	na	na	na ³	313.20
1981	3.20/3.50	3.81	0.15	na	na	na	786.00
1982	3.55/4.00	4.05	0.50	15	na	48	778.20
1983	3.65/3.65	4.30	0.65	15/5+ ⁴	2.70/95 ⁵	78	1224.70
1984	3.30	4.38	1.00	20/10+	2.70/85	60	1730.30
1985	3.30	4.38	1.08	20/10	2.70	73	2355.30
1986	2.40	4.38	1.98 ⁶	22.5/2.50+	1.10/2.00	85	3861.00
1987	2.28	4.38	1.81	27.50	na	88	3436.50
1988	2.21	4.23	0.69	27.50	na	86	1723.00
1989	2.05	4.10	0.32	10	na	78	1065.007 ⁷
1990	1.95	4.00	0.90	5 ⁸	na	na	⁹

- 1 The first entry is the regular loan rates; the second entry is the Farmer-Owned Reserve loan rate.
- 2 The first entry is the target price applicable to those producers who planted within the farm National Commodity Acreage (NCA); the second entry is for those who planted is in excess of the farm NCA.
- 3 All producers are eligible for program benefits.
- 4 The first entry is the set-aside or ARP percentage, the second entry is ARP percentage combined with ARP, and the third entry is optiona PLD. Plus sign indicates optional diversion program.
- 5 The first entry indicates the diversion payment rate and the second entry indicates PIK payment percentage.
- 6 Maximum level.
- 7 Estimate.
- 8 Wheat modified programs which participants could plant up to 105 percent of their base have been offered.
- 9 Not yet available.

Source: Agricultural Stabilization and Conservation Service (ASCS), USDA.

Table 2 -- U.S. Wheat Supply and Disappearance, 1980-1989/90.

Year Beginning June 1	Beginning stocks	Production	Imports*	Total supply	Domestic use	Exports*	Ending	
							Government owned	Privately owned
		--- million	bushels ---					
1980/81	902.0	2,380.9	2.5	3,285.4	782.5	1,513.8	199.7	789.4
1981/82	989.1	2,785.4	2.8	3,777.3	847.2	1,770.7	190.3	969.1
1982/83	1,159.4	2,765.0	7.6	3,932.0	908.2	1,508.7	192.0	1,323.1
1983/84	1,515.1	2,419.8	3.8	3,938.7	1,113.7	1,426.4	188.0	1,210.6
1984/85	1,398.6	2,594.8	9.4	4,002.8	1,156.2	1,421.4	377.6	1,047.6
1985/86	1,425.2	2,424.1	16.3	3,865.6	1,051.6	909.1	601.7	1,303.3
1986/87	1,905.0	2,090.6	21.3	4,016.9	1,197.3	998.5	830.1	990.8
1987/88	1,820.9	2,107.7	16.1	3,944.7	1,186.0	1,597.8	283.0	977.8
1988/89	1,260.8	1,812.2	22.6	3,095.6	974.8	1,419.2	190.5	511.1
1989/90	701.6	2,035.8	21.0	2,758.4	1,015.4	1,300.0	125.0	318.0

* Imports and Exports include flour and other products expressed in wheat equivalent. Source:[16].

Table 3--U.S. Wheat Exports: By Selected Programs

Fiscal Year	PL480	Section 416	Aid 1/	Total Concessional	CCC export credit 2/	Export enhancement program 3/	Total U.S. wheat exports	Share to total 4/
				----- 1,000 metric tons -----				----- percent -----
1978/79	3,234	0	7	3,241	2,684	0	31,340	19
1979/80	2,785	0	44	2,829	1,945	0	36,066	13
1980/81	2,537	0	4	2,541	3,261	0	42,246	14
1981/82	2,978	0	0	2,978	3,725	0	44,607	15
1982/83	3,340	0	123	3,463	8,597	0	36,701	33
1983/84	3,442	0	0	3,442	11,406	0	41,699	36
1984/85	4,392	0	74	4,466	8,221	0	28,524	44
1985/86	4,685	76	513	5,274	7,740	4,800	24,626	70
1986/87	3,927	406	1	4,334	8,125	12,350	28,204	87
1987/88	3,321	1,186	292	4,799	9,273	25,100	40,423	93
1988/89 ⁵	3,700	0	789	4,489	8,897	17,948	37,702	81

1/ Shipment mostly under the Commodity Import Program, financed with foreign aid funds.

2/ Source: FAS/USDA.

3/ Unofficial estimates of shipments compiled from EEP press release.

4/ Adjusted for overlap between CCC export and EEP shipments.

5/ Preliminary.

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TABLE 4. U.S. Wheat Exports

	Unit million metric tons	1980	1981	1982	1983	1984	1985	1986	1987	1988	Total 1986-88	Total 1980-88
Algeria	"	0.24	0.64	0.40	0.62	0.47	0.75	1.57	1.82	1.44	4.83	7.96
Bangladesh	"	1.14	0.25	0.71	0.45	1.07	0.56	0.65	0.80	0.48	1.93	6.11
Brazil	"	1.91	2.85	2.42	2.50	2.43	1.94	0.58	0.10	0.00	0.68	14.73
China	"	5.80	7.07	6.49	2.34	3.82	0.71	0.00	1.82	6.26	8.09	34.31
Columbia	"	0.50	0.48	0.54	0.54	0.53	0.57	0.40	0.26	0.34	0.99	4.15
Dominican Republic	"	0.14	0.17	0.15	0.19	0.16	0.21	0.19	0.24	0.21	0.64	1.67
Ecuador	"	0.30	0.31	0.30	0.28	0.39	0.33	0.35	0.34	0.36	1.06	2.97
Egypt	"	1.15	1.84	1.72	1.83	1.26	1.43	1.89	2.31	2.62	6.82	16.07
India	"	0.02	1.32	1.49	3.33	0.27	0.02	0.00	0.00	1.75	1.75	8.19
Indonesia	"	0.73	0.69	0.92	0.91	0.78	0.38	0.45	0.20	0.16	0.80	5.21
Iraq	"	0.30	0.09	0.17	1.08	1.06	0.51	0.55	0.81	0.85	2.21	5.42
Israel	"	0.37	0.36	0.49	0.37	0.54	0.42	0.50	0.51	0.36	1.38	3.93
Italy	"	0.46	0.79	0.57	0.37	0.46	0.42	0.41	0.35	0.31	1.07	4.13
Japan	"	3.16	3.20	3.18	3.29	3.21	2.96	3.04	2.84	2.77	8.66	27.67
Jordan	"	0.07	0.10	0.22	0.29	0.34	0.18	0.20	0.27	0.04	0.51	1.70
Korea, South	"	1.85	1.93	1.78	1.79	1.88	1.80	1.84	1.81	1.94	5.59	16.61
Mexico	"	0.64	0.99	0.37	0.00	0.02	0.00	0.00	0.11	0.80	0.91	2.93
Morocco	"	0.47	0.66	0.71	1.12	2.35	0.39	1.21	1.92	1.24	4.38	10.08
Nigeria	"	0.94	1.14	1.22	1.24	1.46	1.40	0.88	0.00	0.00	0.88	8.28
Not Specified	"	1.87	1.76	1.19	0.67	1.06	0.52	0.25	0.12	0.34	0.71	7.77
Pakistan	"	0.15	0.17	0.25	0.24	0.21	0.57	0.57	0.18	0.73	1.48	3.07
Peru	"	0.63	0.87	0.90	0.76	0.56	0.15	0.25	0.23	0.39	0.88	4.76
Philippines	"	0.71	0.79	0.87	0.80	0.68	0.67	0.76	0.83	0.93	2.51	7.03
Poland	"	0.31	0.09	0.00	0.04	0.06	0.06	0.05	0.83	0.99	1.87	2.42
Portugal	"	0.59	0.61	0.54	0.57	0.67	0.59	0.23	0.11	0.03	0.37	3.94

TABLE 4. U.S. Wheat Exports (continued)

	Unit million metric tons	1980	1981	1982	1983	1984	1985	1986	1987	1988	Total 1986-88	Total 1980-88
Saudi Arabia	"	0.07	0.29	0.32	0.17	0.12	0.05	0.10	0.11	0.13	0.34	1.35
Soviet Union	"	1.68	3.88	4.08	4.60	7.26	1.01	0.00	4.57	7.60	12.17	34.68
Sri Lanka (Ceylon)	"	0.13	0.32	0.26	0.15	0.29	0.21	0.28	0.31	0.49	1.07	2.45
Sudan	"	0.20	0.22	0.32	0.24	0.23	0.39	0.30	0.36	0.19	0.85	2.43
Taiwan	"	0.52	0.60	0.61	0.59	0.62	0.61	0.67	0.79	0.79	2.24	5.79
Tunisia	"	0.27	0.13	0.27	0.34	0.67	0.06	0.38	0.31	0.58	1.26	3.00
Turkey	"	0.00	0.42	0.27	0.00	0.90	0.10	0.52	0.23	0.00	0.76	2.45
Venezuela	"	0.65	0.85	0.68	0.84	0.74	0.55	0.80	0.51	0.43	1.73	6.05
Yemen (Sana)	"	0.00	0.00	0.00	0.33	0.10	0.03	0.11	0.12	0.17	0.40	0.86
Yugoslavia	"	0.78	0.12	0.22	0.28	0.00	0.00	0.35	0.41	0.00	0.76	2.16
Zaire	"	0.14	0.13	0.12	0.08	0.07	0.11	0.13	0.16	0.15	0.44	1.09
US to others	"	5.06	5.60	4.02	3.30	3.39	2.90	2.82	2.41	2.60	7.83	32.10
Total US Exports	"	33.97	41.72	38.75	36.55	40.13	23.57	23.28	29.10	38.47	90.85	305.53
Total Canada Exports	"	16.76	15.47	19.20	21.81	21.09	16.98	15.96	22.14	0.00	38.10	149.41
Total Australia Exports	"	12.42	9.05	12.41	6.50	15.28	13.85	16.58	15.22	0.00	31.80	101.29
Total Argentina Exports	"	4.49	3.77	3.80	10.18	7.24	9.58	4.02	4.19	3.64	11.86	50.93
Total EC Exports	"	13.65	16.80	15.55	17.71	20.05	22.22	21.67	22.67	4.31	48.65	154.63
World total	"	81.29	86.81	89.71	92.74	103.80	86.20	81.51	93.32	46.42 ⁵	221.25	761.8

⁵Excluding Canada and Australia

NOTE: Data are in Calendar Year.

SOURCE: United National Trade data.

Table 5--Value of U.S. Commercial and Government Program Sales

Fiscal Year	Commercial Exports	Government Program Sales					Total Government Sales	Total
		PL480	GSM	EEP	Direct Sales	Barter		
--- Million Dollars ---								
1960	3,402	967	1	0	0	149	1,117	4,519
1961	3,612	1,172	18	0	0	144	1,334	4,946
1962	3,615	1,297	33	0	0	198	1,528	5,143
1963	3,546	1,409	77	0	0	47	1,533	5,079
1964	4,532	1,375	118	0	0	43	1,536	6,068
1965	4,432	1,539	94	0	0	32	1,665	6,097
1966	5,191	1,314	210	0	0	32	1,556	6,747
1967	5,121	1,349	339	0	0	22	1,710	6,831
1968	4,811	1,373	141	0	0	6	1,520	6,331
1969	4,596	1,038	116	0	0	1	1,155	5,751
1970	5,691	1,056	211	0	0	0	1,267	6,958
1971	6,541	1,023	391	0	0	0	1,414	7,955
1972	6,811	1,059	372	0	0	0	1,431	8,242
1973	13,000	955	1,029	0	0	0	1,984	14,984
1974	20,393	868	298	0	0	0	1,166	21,559
1975	20,467	1,101	249	0	0	0	1,350	21,817
1976	20,444	1,341	957	0	0	0	2,298	22,742
1977	22,111	1,108	755	0	0	0	1,863	23,974
1978	24,613	1,076	1,583	0	17	0	2,676	27,289
1979	29,184	1,186	1,591	0	18	0	2,795	31,979
1980	37,733	1,273	1,434	0	41	0	2,748	40,481
1981	40,381	1,376	1,863	0	160	0	3,399	43,780
1982	36,636	1,043	1,387	0	17	13	2,460	39,096
1983	29,368	1,208	4,119	0	81	0	5,408	34,776
1984	32,841	1,277	3,800	0	81	34	5,192	38,033
1985	26,622	1,761	2,724	0	96	0	4,581	31,203
1986	22,439	1,260	2,030	805	189	0	3,897	26,336
1987	23,052	1,316	2,204	1,697	188	0	4,825	27,877
1988	27,964	1,318	3,558	3,170	109	0	7,372	35,336
1989	31,276	1,459	4,657	2,919	135	0	8,382	39,658

Source: FAS, USDA.

Table 6 -- Wheat Exports Under Credit Programs, 1960-89.

Programs							
Year	GSM-5	GSM-101	GSM-102	GSM-103	Blended Credit	Total Exports under Credit	% of Total Wheat Exports
	Thousand	Metric Tons					
1960	8					8	*
1961	129					129	*
1962	140					140	*
1963	260					260	*
1964	398					398	*
1965	94					94	*
1966	533					533	*
1967	1,529					1,529	7
1968	846					846	*
1969	324					324	*
1970	802					802	*
1971	2,113					2,113	12.8
1972	1,966					1,966	6.4
1973	8,749					8,749	26.4
1974	1,483					1,483	5.3
1975	155					155	*
1976	1,019					1,019	*
1977	2,252					2,252	7.4
1978	3,813					3,813	11.7
1979	2,417	267				2,684	7.2
1980	1,322	623				1,945	*
1981		423	2,826			3,261	7.7
1982			3,725			3,725	8.3
1983			5,990		2,607	8,597	23.4
1984	172		8,108		3,126	11,406	27.3
1985	153		7,723		345	8,221	28.8
1986			7,740			7,740	31.4
1987			6,832	1,293		8,125	28.8
1988			7,811	1,462		9,273	22.9
1989			7,554	1,343		8,897	23.5

SOURCE: FAS.
* Less than 5 percent.

Table 7--U.S. Exports Under Credit Programs By Countries

Country	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87	FY88	Total	%
Thousand Metric Tons											
World	1945	3261	3704.6	8597	11406.4	8222	7740	8125	9272.6	62273.6	100
Algeria	0	0	0	0	0	0	411	1352.6	1798.6	3562.2	5.72
Bangladesh	0	0	0	317	274.9	339	0	169.4	146.5	1246.8	2.00
Brazil	186	1151.8	1628.9	2074	2556	2876	450	326.8	69.1	11318.6	18.18
Chile	0	0	0	495	792.4	264	251	101	35.1	1938.5	3.11
Colombia	0	0	0	0	384	557	305	108.7	179.2	1533.9	2.46
Ecuador	0	0	0	188	366	290	305	307.6	361.7	1818.3	2.92
Egypt	0	0	0	390	397	246	1541	1014.6	1974.4	5563	8.93
Irag	0	0	0	1187	1155	590	703	902.7	791.7	5329.4	8.56
S. Korea	446	569.2	779.5	758	903	735	1221	1368.8	1305.7	8086.2	12.98
Mexico	0	0	0	0	0	0	0	10.9	762.1	773	1.24
Morocco	0	364.6	499.8	820	1806	485	883	1368	1174.7	7401.1	11.88
Portugal	55	134.4	409.8	549	655	570	395	0	0	2768.2	4.45
Tunisia	0	0	0	141	522	197	68	431.3	397.1	1756.4	2.82
Turkey	0	0	0	0	260	321	508	245	0	1334	2.14
Yemen San	0	0	0	240	860	0	55	151.3	124.2	1430.5	2.30
Yugoslavia	357	127	0	288	0	0	0	0	0	772	1.24
Rest-of- World	901	914	386.6	1150	475.1	752	644	266.3	152.5	5641.5	9.06

Source: FAS, *GSM Annual Reports Note*; Contact Ann Fleming, ERS/CED.

Table 8--Wheat Exports under EEP, fiscal Year 1985-Feb. 1989¹

Fiscal Year	Commodity	Number of countries	Number of Contracts	Exports	Sale Value	Bonus value
1985	Wheat	1	15	18.2	55.0	10.8
	Wheat flour	1	14	3.9	31.5	12.0
1986	Wheat	12	193	179.1	502.8	126.1
	Wheat flour	5	57	15.3	112.4	57.3
1987	Wheat	21	456	525.7	1,153.8	546.8
	Wheat flour	5	58	15.2	92.0	71.5
1988	Wheat	22	794	981.1	2,829.0	822
	Wheat flour	4	25	7.6	58.6	33.4
1989	Wheat	14	191	228.8	971.1	124.6
	Wheat flour	3	4	0.7	8.9	2.1

¹ Wheat is in million bushels, wheat flour is in million cwt. Sales and bonuses are million dollars.
Source: [5].

Table 9--U.S.-USSR Grain Agreements

Agreement year	Wheat	Corn	Total Grain Purchased	Percent of Total U.S. corn and wheat Exports
First Agreement				
---- thousand metric tons ----				
1976/77	3,064	3,052	6,116	9.0
1977/78	3,453	11,132	14,585	18.5
1978/79	3,971	11,530	15,501	17.9
1979/80	2,171	5,768	7,939	8.0
1980/81	3,780	5,738	9,518	9.3
1981/82	6,097	7,772	13,869	14.0
1982/83	2,999	3,208	6,207	7.1
Second Agreement				
1983/84	7,593	6,476	14,485	16.7
1984/85	2,887	15,750	18,637	21.7
1985/86	153	6,539	8,211	14.9
1986/87 ^P	4,100	4,100	8,200	12.6
1987/88 ^P	9,000	5,500	14,500	16.6
1988/89 ^P	5,400	16,300	21,700	24.1
1989/90 ^P	4,000	16,500	20,500	21.9
<hr/> Preliminary.				
Source: USDA and [4].				

Table 10 -- U.S.-PRC Grain Agreement

Agreement Year	Total Wheat Purchased	Total Corn Purchased	Total Grain Purchased	Percent of Total U.S. Grain Exports
	--	- thousand metric tons	---	
1981	7,855	529	8,384	8.5
1982	7,026	1,631	8,657	10.0
1983	2,447	1,381	3,828	4.4
1984	4,119	0	4,119	4.8

SOURCE: GAO

Table 11--U.S. Wheat Ending Stocks, 1960-89

Crop Year ^{1/}	Total	Government	Free	Farmer-Owned
		--- Million Metric Tons	---	
1960	40.91	33.83	7.08	0.00
1961	38.68	29.86	8.82	0.00
1962	34.57	29.45	5.12	0.00
1963	27.05	22.56	4.49	0.00
1964	25.07	17.58	7.49	0.00
1965	17.99	11.43	6.56	0.00
1966	13.96	3.73	10.23	0.00
1967	17.15	2.83	14.32	0.00
1968	24.60	3.89	20.71	0.00
1969	26.75	7.89	18.86	0.00
1970	22.40	9.77	12.63	0.00
1971	26.75	9.96	16.79	0.00
1972	16.25	5.79	10.46	0.00
1973	9.25	3.62	5.63	0.00
1974	11.84	0.33	11.51	0.00
1975	18.13	0.00	18.13	0.00
1976	30.29	0.00	30.29	0.00
1977	32.06	1.31	21.44	9.31
1978	25.15	1.39	12.79	10.97
1979	24.55	5.12	12.35	7.08
1980	26.92	5.44	11.68	9.80
1981	31.54	5.17	11.13	15.24
1982	41.23	5.23	7.12	28.88
1983	38.08	5.12	16.33	16.63
1984	38.79	10.29	10.62	17.88
1985	51.85	16.38	19.25	16.22
1986	49.56	22.59	9.77	17.20
1987	34.32	7.70	13.91	12.71
1988 ^{3/}	19.11	5.20	6.12	7.79
1989 ^{4/}	12.30	3.18	5.20	3.92

^{1/} Crop year beginning June 1.

^{2/} Less than 5,000 metric tons.

^{3/} Preliminary.

^{4/} Projected.

^{5/} Source: ASCS, and Wheat Situation and Outlook CED-ERS.

CHAPTER 8: The Soviet Union

This chapter was written before the breakup of the Soviet Union. It does, however, reflect the direction of changes currently taking place in the Exportkhleb.

THE SOVIET UNION

Alexander A. Ivashchenko and Oleg A. Klimov

INTRODUCTION

The amount of land and resources dedicated to grain production in the USSR gives it the potential to be a major grain exporter. However, there are structural deficiencies in the USSR agricultural system that hinder the USSR from reaching its full potential. Instead it is the second largest importer of grains in the world, surpassed only by the People's Republic of China. The USSR stopped exporting a significant amount of grains in 1978 (Figures 1 and 2). The USSR is currently addressing the problems of its agricultural economy and its economy as a whole, implementing major reforms toward a free market system -- for the first time since the revolution of 1917 established a centrally planned economic system.

Exportkhleb, the state trading agency that purchases and sells grains in the USSR, is likewise undergoing major changes, including a move to corporate status with the authority to purchase and sell a wider range of commodities and increased autonomy from the government in financing and sales. This chapter describes the state of grain production in the USSR, the general agricultural framework, the functions of Exportkhleb, and the major changes in its operations in light of federal reforms.

Trends in Production, 1980-89

Over the last ten years the agricultural economy of the USSR developed at a slow and declining pace. Basically this was a result of USSR agriculture's extensive nature, an insufficiency of labor and land resources and deterioration of their quality, and a complicated

ecological situation. Other determining influences on agriculture's development were weather and other natural factors, changes in domestic agricultural policy, and macrostructural shifts in the economy.

The Soviet Union is one of the largest world producers of grain (excluding rice) behind the USA and shares the leadership with China in wheat. The high gross output is achieved mainly due to the Soviet Union allocating the largest area in the world to grain production, on average about 115 million hectares during 1986-1989. In the same period, yields were low, slightly under 1.9 tons per hectare on average. Grain yields are subject to considerable annual fluctuation because the biggest portion of the land is situated in regions of high risk agriculture. Weather conditions are delicate causing much variability in production. An upward trend in yields is difficult to sustain.

The dynamics of grain crop production expressed in five-year averages is characterized in Table 1. Similar dynamics were demonstrated in yields with the exception of winter wheat. Average yields for cereals, spring wheat, and winter wheat are displayed in Table 1 as well.

Under the centralized system of management, an important indicator of grain supplies from domestic sources is the level of state purchases. State purchases form the state food fund and provide raw materials for the feedstuff industry. In the period under review for grains, especially for wheat, not only the share of state purchases in total production went down, but also the level

of purchases declined. State purchases from the decade of the 1970s to the decade of the 1980s show a decrease on average in grains of 7.2 percent; and for wheat state purchases decreased by 22 percent. Production of cereals for the market from the 1970s to the first half of the 1980s fell an average of 37-38 percent and to the second half of the 1980s fell 33 percent. There are a number of reasons for such a low level of production for market, inter alia, poor quality of grains, particularly of wheat because of the reduction of the share of spring wheat; huge losses during harvesting, transportation and storage (estimated at more than 30 million metric tons); low state purchasing prices; and in more recent years - difficulties in acquiring goods for the amount of money received for state sold grains; and a trend of increased barter deals inside the USSR.

Domestic Use and Consumption, 1980-89

Despite the stagnation of cereal production in the USSR cereal utilization tends to grow. Food consumption of cereals (bread, flour, cereals, macaroni, noodles, and so forth) is relatively stable, ranging from 54-56 million metric tons. The slight decline in per capita consumption in the 1980s, from 138 kg in 1980 to 130 kg in 1989 (in flour equivalent), is compensated by an increasing population. Domestic supplies of food grains produced for the market lag significantly behind food consumption because of low volumes of state purchases of the primary food grains (wheat, rye, rice and buckwheat), as well as the utilization of some of these grains in the manufacturing of feed. The deficit of food grains constantly exceeds 10 million metric tons. One should note, however, that the shortage of wheat is of a relative nature mainly due to quality of grain and the outdated technology of bread production requiring exclusively hard wheat.

While the food consumption of cereals is stable, the overall increase in cereal utilization is

accounted for by increases in feed consumption. According to Soviet statistics, utilization in animal husbandry of concentrated feed-stuffs, the cereal component of which is estimated at 85 percent, has increased from 143.9 million metric tons in 1980 to 147.4 million metric tons in 1985 and 154.9 million metric tons in 1988. The high cereal component in feedstuffs, comprising up to 40 million metric tons of wheat, is one of the major reasons explaining the deficit in the Soviet grain economy. The low content of protein and vitamins in feedstuffs leads to low feeding efficiency, excess usage of feeds, and low output of meat and milk per unit of feed. Therefore, the task at hand is to use grain efficiently for feeding by balancing the protein and vitamin contents in feeds and by increasing the usage of feeds other than grains.

Export and Import of Grains

The shortage of domestic food and feed grains necessitated imports to meet demand. As is well known, the USSR became a net grain importer in 1972. The volume of imports reached its high in the 1980s. Fluctuations in imports from year-to-year are determined by many factors, including the size of the USSR crop, the quality of harvested grains, the availability of hard currency and the capacity of ports. The main suppliers of grain to the Soviet Union are the leading world exporters: the USA, Canada, France, Argentina, Australia, and in the last few years, the U.K. and West Germany. The amount of cereals purchased from individual countries varies from year-to-year depending on domestic policy conditions governing imports, commercial terms of transactions, availability of supplies in exporting countries of required types of grains, quality of merchandise, transport terms, and so forth.

Exports of cereals from the Soviet Union are insignificant. They consist mainly of reexports to such countries as Cuba. Small quantities of Soviet grains are delivered as aid to some

countries. In the last couple of years with the decentralization of foreign trade there have been small commercial exports.

When payments in hard currency were introduced in 1989 for grains produced above planned targets, the so called internal imports started (it is called so because imports are reduced by the sums spent on such purchases). However, the volume of such internal imports in the first year of this program turned out to be small, in particular for wheat at just 223 thousand tons. This is partly because the policy was introduced late in the crop season and delays occurred due to shortages of hard currency. In 1990/91 this figure may be considerably higher.

FEATURES OF RECENT AGRICULTURAL LEGISLATION

Evolution of Farm Prices and Incomes.

Farm (state purchasing) prices are one of the tools used to encourage production in the USSR. However, unlike in market economy countries, the state purchasing prices in the USSR are not the minimum at which the farmers can sell their produce but an obligatory maximum price. In recent years farm prices for grains increased but the rate of increase was considerably lower than price increases for agricultural machinery, lorries, chemicals, and salaries. Up to 1990 a complicated system of state purchasing prices was in place. Apart from price differentiation related to grades and regions, different premiums were established for grains produced on individual weak state or collective farms. The premium was paid to farms performing poorly. Such premiums actually encouraged weak collective and state farms to work inefficiently and further, reduced incentives for good performance on strong farms.

In May 1990 the USSR Council of Ministers adopted a decree: "Measures to Stimulate State Purchases of Grain in 1990". The decree

provides for an increase in purchasing prices by an average of more than 1.5 times the actual payments in place before, and applies to all types of premiums. For example, the price of 1st class soft wheat including all premiums amounted to 260 roubles per ton (before the decree, 1988 to April 1990). The new price increased to 500 roubles per ton. For soft wheat class two it went up from 205 to 400 roubles per ton and for soft wheat class three - from 181 to 300 roubles per ton. Please refer to Table 2 for a complete list of the new prices for the different grain types. The increase was even higher for food grains produced without pesticides and grains destined for the manufacture of dietetic food and food for children. It was intended that the new prices would be the same for the whole Soviet Union but with the growing independence of Republics presently, it is possible that even higher prices will be introduced in certain regions and certain Republics. For example, within the Russian Federation four different prices exist in four different regions, with higher prices in regions with relatively poor growing conditions.

Target Prices, Income Policies, and Production Incentives

It is necessary to mention that the increased level of the purchasing price itself and even its comparison with the prices for production inputs does not truly reflect the effectiveness of price and income policies in the present situation. Because of shortages in the economy and flight from money it is difficult for collective and state farms and for individual farmers to acquire the required goods with their incomes. In the past the state, through a system of state material and technical procurement, managed to satisfy most of the demands of agriculture. With transition to a free market system the volume of centralized supplies will be considerably diminished. The state still allocates certain quantities of cars, lorries, tractors and other agricultural machinery based on sales of products produced above the

plan but these obligations are underfulfilled. Targets are set above availabilities.

Individual Republics apply their own measures to stimulate food production. For instance, at the end of July 1990 the government of the Russian Federation introduced a special "village" currency in the form of special "Crop-90" cheques, for the sum of 10 billion roubles. These cheques are not documents for payment but give the right to acquire goods in high demand. Instead of the existing practice of barter, the cheques can be transferred to suppliers of goods and services for agriculture. It was recommended to allocate not less than 60 percent of such cheques to laborers working in the state and collective farms, as well as to free farmers (eg, farmers who lease land on their own). Aside from the stimulation by the cheques, the price of excess agricultural produce remaining after the fulfillment of contracts and 30 percent of the crops which constitute the state order (plan) can be established in the market.

As an extra incentive for increased production, a system of limited sales above the plan for hard currency has been in place since 1989. Under this system farms exceeding average figures of production and sales to the state over a set number of years are provided the right to sell wheat produced above the plan to Exportkhleb for hard currency. These purchases are counted in the fulfillment of the import plan. They are made at the average price of 60 roubles per ton and differentiated by grades. However, the late acquaintance of farms with the procedure of receiving and spending currency, the complexity of this procedure, difficulties in receiving and spending the money, along with other factors led to a weak response to this innovation.

The transition to convertibility of the rouble will probably have a strong influence upon effectiveness of price and income policy. On August 4, 1990 the Council of Ministers of the USSR adopted a decree on measures to

reorganize the currency market. From January 1, 1991 onward, all enterprises and organizations which are legal entities according to Soviet law, i.e. collective and state farms, cooperatives, joint ventures, joint stock companies, and so forth, but not individuals, are able to sell and buy foreign currency for roubles at the market rate based on supply and demand for currency on the USSR territory in interbank transactions, operations on currency exchanges, auctions and in other transactions allowed by the law. These measures should be facilitated by the organization of an all-union currency exchange in Moscow as well as Republic and regional currency exchanges. It is certain that the rate of exchange of the rouble at these markets will be significantly lower than the existing official rate. This should lead to a greater interest of farmers in selling grain for hard currency, increased sales on the free market, higher prices on this market and correspondingly higher grain producer incomes.

Major Reforms in Agriculture, 1989

Modern agricultural policy and legislation adopted in 1990 are aimed at increasing the role of incentives and the development of a free market agricultural economy. The laws on leasing, and ownership of land contribute fundamentally new elements into the agricultural economy of the USSR. They envisage: the transfer of property rights in land to Councils instead of the central government; the introduction of a multitude of forms of ownership with equal rights, in particular, state, cooperative and individual ownership; the right of peasants (farmers) to possess land for life and to inherit the right to possess land although the land remains state property; the right to lease and to let the land and means of production (sublease); the right of the farmer to freely dispose of his produce; to receive payment of rent for land; the prohibition of state and government interference in the use of land given to farmers; and some other rights necessary for the development of a free agricultural market.

Greater rights to develop and implement agrarian policies were delegated to Republics. In fact, land legislation in many Republics is now more radical than the All-Union legislation. For example, in the Baltic Republics land can become private property of farmers.

Due to the opportunities provided by the new laws, individual farms have appeared; the land and property in many collective and state farms has been leased to farmers; associations of leased-cooperative farms and peasant farms in place of some state farms have been created; unions of farmers, leaseholders, and cooperators have formed; preparations are under way to organize grain exchanges.

ORGANIZATION OF STATE TRADING AND ITS CHARACTERISTICS

For more than 60 years the only organization involved in exports and imports of grain in the USSR was Exportkhleb. At present Exportkhleb is a state all-union foreign economic association (Russian abbreviation is VVO) directly subordinated to the Ministry for Foreign Economic Affairs of the USSR (MFEA). Exportkhleb acts in accordance with the plan and the decisions of the USSR government.

The main customer of goods purchased by Exportkhleb is the State Commission of the Council of Ministers of the USSR on food and purchases (earlier the client was the now abolished Ministry of Bread Products). In its day-to-day work Exportkhleb contacts different organizations of the Ministry of the Sea Fleet, including commercial organizations similar to Exportkhleb, the Ministry of the Rail Roads, the Ministry of Finance, and the Bank for Foreign Economic Relations.

Structurally Exportkhleb comprises three commercial firms ("Zerno", i.e. Grains; "Prodsytje", i.e. Raw Food Products; and "Sovzerno", i.e. Grains from the USSR) and

auxiliary units such as the Department of Market Analyses and Prices, the Department of Currency and Finance, the Transportation Department, the Accounting Department, and so forth. Exportkhleb is administratively managed and headed by a chairman.

Exportkhleb acts on the principal of limited self financing. The State is not responsible for its operations and it has freedom in deciding the exact time of delivery and the quantities and types of grains delivered within the framework of the plan and in line with decrees of the government. Exportkhleb has its own bank accounts and property, complete reign over its operations within the framework of the plan and the delivery guidelines set by the government, and freedom to decide the quantities and types of grains handled.

The task of Exportkhleb is to purchase grains, soybean meal, soybeans, rice and other goods on a government commission basis and at the expense of the government, as well as the purchase and sale of different agricultural goods for clients other than the government at the expense of the client.

Exportkhleb fulfills the functions of a trading firm working on a commission basis. It negotiates purchases/sales of goods, concludes contracts and organizes execution of those contracts. Exportkhleb's obligations regarding imports vis-a-vis internal clients are completed with the delivery of the goods on Soviet territory and the dispatch of the goods in railroad cars to receivers of the goods. Regarding exports, its obligations are completed with the shipment of the goods and receipt of payment from the foreign buyer.

The functions and ministerial supervision over Exportkhleb have changed slightly in the past several years. In particular, until 1988 Exportkhleb was supervised by the now defunct Ministry of Foreign Trade. Since 1978 its

independence in spending the money it earns has slightly increased. Recently strict limitations on the range of traded goods were lifted, and now Exportkhleb can in principal export and import any goods. Since 1989 operations related to "internal imports" have been added, i.e. purchases for currency of grains produced above the plan. At the end of 1990 and beginning of 1991, the legal status of Exportkhleb will change to a joint stock company. The operations will depend to an even greater extent on orders of the customers for whom Exportkhleb will act as a commission agent. As a result of this, competition for orders is expected to increase.

The relationship of Exportkhleb to foreign companies such as Cargill, Continental, and Dreyfus are based on the usual partnership existing between a buyer and a seller. They don't influence any of the functions of Exportkhleb.

Commercial Trade, Long Term Agreements and Exportkhleb

Trade is conducted on the basis of standard contract forms at fixed prices. At the time of purchase competition between sellers is used. The cheapest offers for the physical commodity are accepted, subject to the equality of all other terms and conditions, i.e. taking into account quality, cost of transportation, and so forth. Long-term trade agreements as a factor influencing the choice of trading partners by country of origin do not play an important role. Such trade agreements are concluded by the MFEA on behalf of the government of the USSR, while Exportkhleb acts as a trade firm. In practice the volume of purchases counted into trade agreements amounts to one-half of total purchases of Exportkhleb grain, soybean meal and soybeans. The volume of purchases from individual countries, the terms of purchases regarding price level and terms of payment, are fixed during commercial negotiations by Exportkhleb.

The main conditions of long-term trade agreements, concluded by the USSR in the 1980s were well reported in the press. Such agreements were concluded with Argentina in 1980 and 1986, and Canada in 1981 and 1985. In 1983 the second Soviet-U.S. long-term agreement on grain supplies was concluded. It envisaged annual deliveries of 9 million metric tons of wheat or corn, as well as the option of choosing to buy soybeans or soybean meal instead of 1 million metric tons of grain in proportion of 0.5 million metric tons of soybeans and/or meal for 1 million metric tons of grains. Annual quantities of wheat and corn should be not less than 4 million metric tons of each type of grains. At the same time the upper limit of 9 million metric tons could be increased by 3 million metric tons of wheat and/or corn. The agreement was in force from October 1, 1983 till September 30, 1988 and it was prolonged for two more years. In 1990 the third long-term agreement with the U.S. was established. Obligations under this agreement are more flexible and allow quantities to vary year-to-year within the timeframe of the agreement. The agreement provides for the purchase of 8 to 10 million metric tons of grains or 8 million metric tons of grains and 1 million metric tons of soybean meal up to 14 million metric tons can be purchased without consulting US authorities.

The volumes of grain imports under the agreements are based on average figures for a number of years, take into account traditional trade relations, and are the result of bargaining between the governments. Trade agreements of this type do not contain provisions with respect to price but suggest that supplies should be at world price levels and correspond to established quality requirements.

The determination of commercial terms and conditions at the conclusion of trade deals in grains is the prerogative of Exportkhleb acting on orders of the client. The volumes of purchases/sales for a certain period of the season

are established by the client (in the case of grains - by the government). Within this quantity, taking into account the required delivery dates and transportation capacity, Exportkhleb negotiates with foreign firms on a competitive basis and fixes the exact times of delivery, quality of the goods, price level, and terms of payment and delivery, in the respective contracts.

There is no price difference in the contracts between buyers from countries with which there are long-term agreements and buyers from countries without long-term agreements. Prices are determined freely based on competition and take into account quality, quantity, and cost of transportation irrespective of whether purchases are made under bilateral agreements with the US, Canada and Argentina or in other countries on the free market. Only under bilateral agreements with COMECON countries are prices of the purchases determined as an average for a number of preceding years and naturally differ from world prices. These bilateral agreements expire in 1990.

Instability of world prices has significant influence upon the activities of Exportkhleb. In trade with COMECON countries instability was eliminated by averaging prices over a number of years. In trade with other countries Exportkhleb purchases cash commodities with delivery at an agreed upon time. Continuous forecasting is also made. Exportkhleb tries to distribute purchases on time, taking into account the time of delivery specified by the client. The practice of hedging is not yet extensively used.

Domestic and International Distinctions

The relations of Exportkhleb with domestic clients are determined by conditions set by the government of the USSR. In the past these relations were in the form of the orders issued to Exportkhleb by the government. In 1990 they take the form of contractual relations. The

responsibility of Exportkhleb ends the moment grain is shipped to the client from the Soviet port of unloading of imported grain (for transportation by sea) or the moment the railroad car transporting the grain crosses the border (for transportation by land).

Payments by the client are made at government established fixed wholesale prices. The difference between import price and internal price is remitted to the State after the deduction of Exportkhleb expenses. Until 1990 Exportkhleb expenses were covered by the government. But from 1990 on, Exportkhleb expenses will be covered by commissions received from clients.

As far as export deliveries are concerned, payments with a number of countries are made through clearing arrangements. In accordance with the USSR government decisions there were some export deliveries as donations or aid.

In the future Exportkhleb will be forced to compete with other foreign trade organizations for the right to receive orders or contracts both for exports or imports. In fact in 1989-1990 export sales of some types of grains were registered by other foreign trade organizations as well as by producers directly. At the moment, it is difficult to evaluate the consequences of the loss of monopoly as new opportunities have simultaneously opened up for Exportkhleb to penetrate the domestic market and other countries markets with the aim of vertically integrating its operations. This may compensate for losses created by the loss of monopoly power.

The state of the domestic grain market and the level of prices will depend to a great extent on the reforms undertaken and planned. It is difficult to estimate their effects at the moment. A lot will depend on the exchange rate of the rouble and on the inflation rate. With a realistic exchange rate and an open economic system the

efficiency of production should increase rapidly, crop production should increase, and losses should diminish. Under these conditions, even with rises in prices expressed in roubles, their levels expressed in dollars would be quite competitive. At the same time the degree of market instability would evidently increase.

Exportkhleb is not involved in any government programs and acts only as a consultant in the determination of quality standards, world market price levels and other problems. However, Exportkhleb does not make any final decisions in these issues.

All transactions with foreign partners require payments in foreign currencies. On instruction from the government of the USSR the currency is provided by the state to the client. Other operations are executed with the hard currency belonging to the main client. With the transition of Exportkhleb to a joint stock company, beginning in February 1991, Exportkhleb has had its own hard currency accounts with clients. The macroeconomic climate in the Soviet Union will determine whether there will be sufficient hard currency to do this. At present hard currency is in shortage.

All payments in foreign currency are made through the Bank for Foreign Economic Relations of the USSR which receives the order from the client to transfer the money to the account of Exportkhleb.

SUMMARY

Up to now Soviet agriculture has been developing extensively. Large investments didn't bring the desired returns as they were directed into the wrong sectors of the agricultural economy and were received not by the producers but by ministries servicing agriculture. Complete domination of the state in agriculture, lack of personal interest, and inadequate incentives also had an impact. The quality of land in recent years has deteriorated. Economic problems have increased. Growth of production stopped because of gigantic losses caused by distortions in the agro-industrial complex -- in particular the underdevelopment of storage facilities, processing, and the overall infrastructure.

More and more in the last two years investments have been transferred into processing and storage, and incentives for production have increased due to the introduction of payments in hard currency for wheat produced above the plan. In addition, a radical agricultural reform has begun, involving the basis of property and the distribution processes in agriculture.

The volume of agricultural trade is determined by the degree of self-sufficiency, availability of hard currency and the level of world prices. In the 1980s the volume of grain imports was very high. Measures to improve the quality of wheat, increase the amount of protein in feeding stuffs and more efficient feeding, coupled with increased domestic prices should decrease internal demand with increased production, and it should reduce the demand for imported grain. Limited currency resources and growth of the external debt will limit purchasing power and real imports of grains. The reduction in imports will be moderate only in the case of low world prices. At the same time an increase in exports of some types of grains is possible.

Long-term intergovernmental agreements contribute to a certain amount of stability in foreign trade in grains. These agreements do not distort the principals of free trade as Exportkhleb, while negotiating contracts, chooses partners on the basis of competitiveness of offers, disregarding whether there is a long-term agreement with a country or not. It acts as a commission agent and has complete operational and commercial freedom within the framework of an order issued by the client on the time of delivery and the quality of grain.

Being a state organization, Exportkhleb is nevertheless independent in its commercial operations. Full independence will be guaranteed with the change of its legal status to a joint stock company. Up to the time of this writing Exportkhleb remains the only agent importing grain into the country but competition in exports has appeared. It is highly probable that in the near future there will be no monopoly in imports either. The position of Exportkhleb as the sole grain importer was neutral with respect to both produced quantities of grain and imported quantities as well as the level of farmers incomes, stability of internal prices, distribution of incomes and so forth. But using its position as the largest grain importer in the world, Exportkhleb manages to achieve more advantageous prices, terms of delivery, credits and other commercial terms.

Figure 1

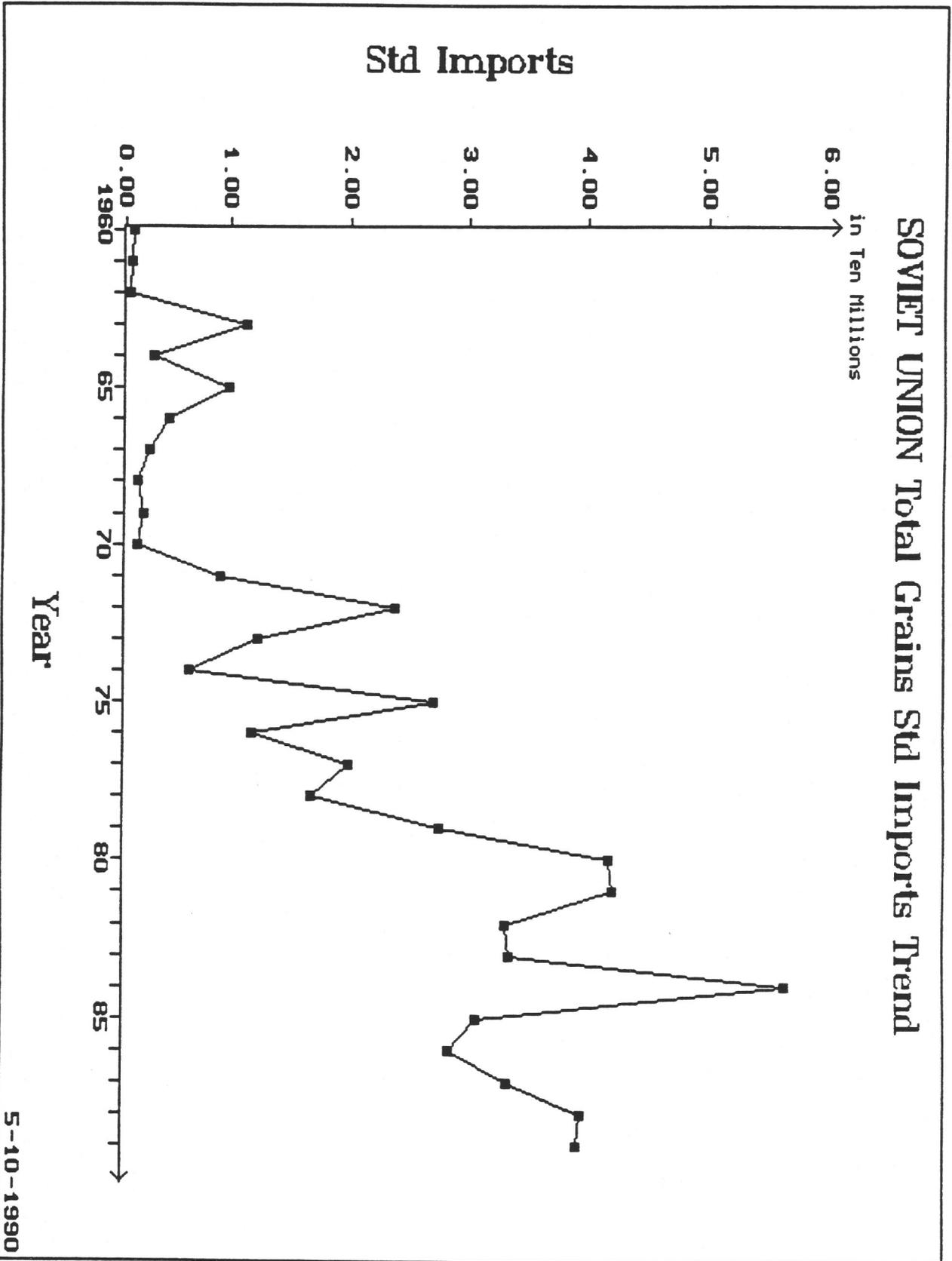


Figure 2

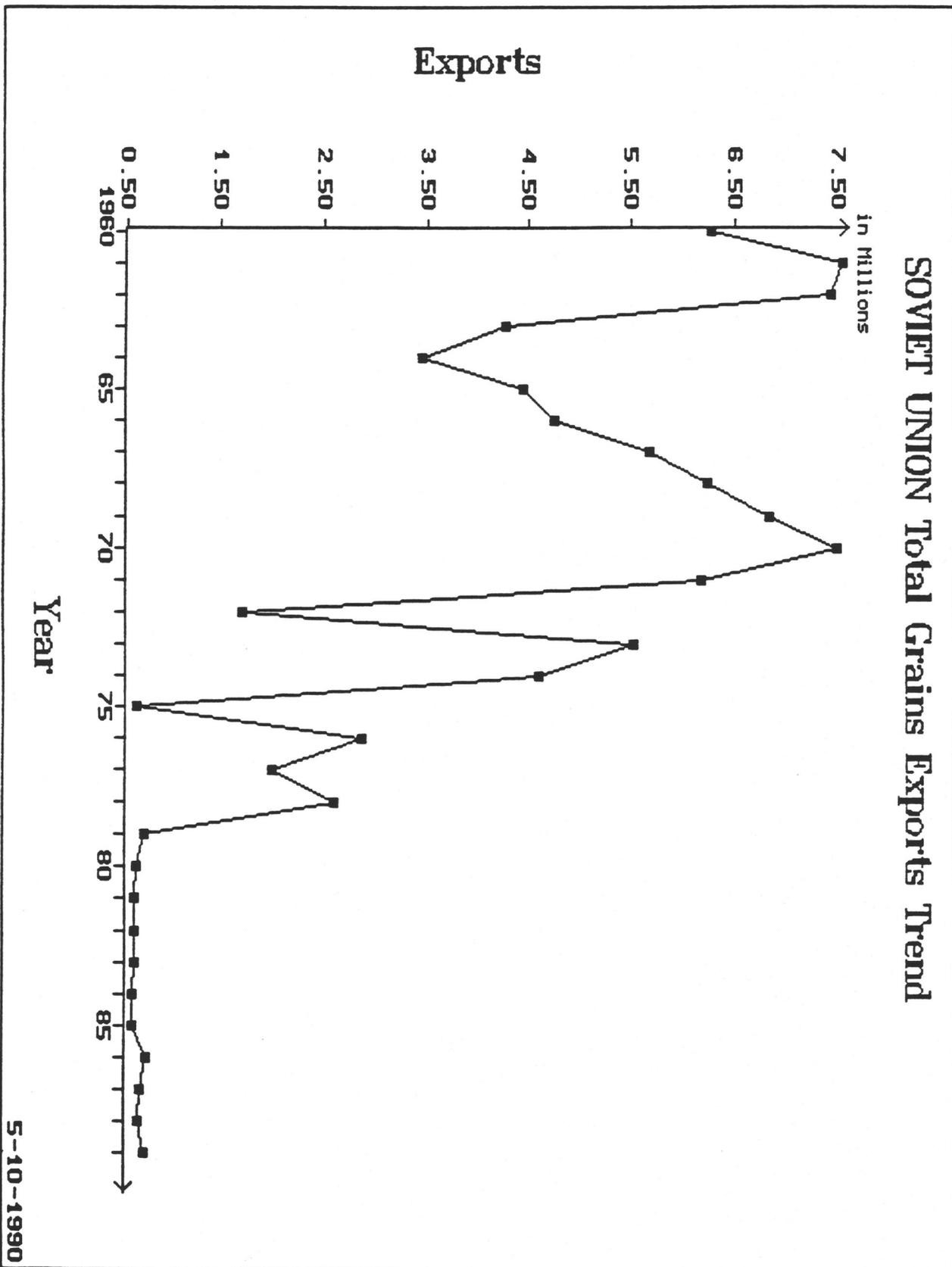


Table 1. USSR Grain and Wheat Production: Averages from 1971-75 to 1986-89.					
Production			Yield		
Years	Grains	Wheat	Grains	Spring Water	Winter Wheat
1971-75	181.6	88.9	1.47	1.10	2.25
1976-80	205.0	99.7	1.60	1.22	2.47
1981-85	180.3	77.9	1.49	1.02	2.28
1986-89	206.9	88.1	1.80	1.16	3.04

Table 2. State Purchasing Prices of Grains in the USSR		
Type	1988 to April 1990	After 1990
	--Roubles per ton--	
Soft Wheat, No. 1	260	500
Soft Wheat, No. 2	205	400
Soft Wheat, No. 3	181	300
Durum Wheat, No. 1	na	700
Durum Wheat, No. 2	na	580
Durum Wheat, No. 2	na	500
Hard Wheat, No. 1	na	580
Rye	na	300
Corn	na	370
Barley	na	200-300
Oats	na	340

SOURCE: Exportkheleb.

Table 3. Production, Yields, Area and State Purchases of Cereals and Wheat for 1980-89

	1980	1985	1986	1987	1988	1989
<u>Total Cereals</u>						
Production (m1n.t)	189.1	191.7	210.1	211.4	195.0	211.1
Yield (t/ha)	1.5	1.6	1.8	1.8	1.7	1.9
Cultivation area (m1n.ha)	126.6	117.9	116.5	115.2	114.9	112.3
State purchases (m1n.t)	69.4	73.5	78.8	73.3	61.5	59.0
<u>Wheat</u>						
PRODUCTION						
Winter wheat	50.0	39.0	46.4	46.2	54.4	63.5
Spring wheat	48.2	39.1	45.9	37.1	30.0	28.9
Total (m1n.t)	98.2	78.1	92.3	83.3	84.4	92.4
YIELDS (t/ha)						
Winter wheat	2.21	2.10	2.80	3.02	2.98	3.34
Spring wheat	1.24	1.21	1.43	1.18	1.01	1.01
Total	1.57	1.55	1.89	1.78	1.75	1.94
CULTIVATED AREA (m1n.ha)						
Winter wheat	22.6	18.0	16.6	15.3	18.3	19.0
Spring wheat	38.9	32.3	32.1	31.4	29.0	28.6
Total	61.5	50.3	48.7	46.7	48.1	47.6
STATE PURCHASES (m1n.t)						
Total	46.5	35.1	43.8	35.2	34.9	34.0

Source: "People's Economy of the USSR", Statistical Annual, Moscow, Finance and Credit Publishing House.

Table 4. Evolution of grain imports of USSR in 1980-89

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Total Wheat (mln.t)	14.7	17.0	21.2	23.6	29.7	21.4	15.7	18.1	21.2	14.2
Total Grains (m ln.t)	27.8	42.0	38.5	33.8	45.9	44.2	26.8	30.4	35.0	37.0
Wheat Value (m ln.roubles)	1869	2492	2834	2874	3746	2494	1243	979	1456	1420
Total Value (m ln.roubles)	3176	4815	4218	3645	5365	4840	2018	1556	2363	3132
Geographical Distribution of Grain Imports into the USSR in 1980-1989 (in million roubles)										
	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
<u>Wheat</u>										
USA	226	508	698	538	1007	194	-	208	508	526
Canada	602	698	892	1035	1195	799	364	301	423	281
France	-	-	-	461	535	410	271	149	153	194
Argentina	314	426	329	532	370	545	3	27	35	60
Australia	435	225	256	133	266	191	305	46	20	27
Total Wheat	1869	2492	2834	2874	3746	2494	1243	979	1456	1420
<u>All Grains</u>										
USA	747	1103	1399	872	2107	1632	319	436	1100	1822
Canada	845	1142	1227	1138	1278	828	449	336	429	295
France	-	-	-	508	562	517	320	175	227	293
United Kingdom	-	-	-	-	18	74	60	83	60	161
Argentina	755	1328	642	730	591	768	38	92	115	80
West Germany	-	-	-	-	-	-	86	51	87	58
Australia	528	264	262	133	281	266	305	46	21	27
Total Grains	3176	4815	4218	3645	5365	4840	2018	1556	2363	3132

SOURCE: "Foreign Trade of the USSR", Statistical Annual, Moscow, "Statistics" Publishing House.

**CHAPTER 9: Summary and Policy Implications:
The Link to the GATT**

SUMMARY AND POLICY IMPLICATIONS: THE LINK TO GATT

George E. Rossmiller and Vernon L. Sorenson

INTRODUCTION

The world agriculture sector is one which has long been characterized by market failure, aspects of which are imperfect knowledge, uncertainty and maladjustment in resource use. In the 1920s and 1930s national governments began creating economic policies to deal with income and adjustment problems in agriculture. This was accompanied by a commitment by government to deal broadly with economic problems in individual nations. Both the U.S. price support system and the EC support systems were designed to deal with income problems in agriculture. Other countries, such as Australia, Canada, and several developing economies sought to deal with their agricultural problems by creating marketing boards for various agricultural commodities. Japan and the Soviet Union had other goals in mind. Japanese agricultural policies and the Japanese Food Agency were developed to enhance food security. In the Soviet Union, until recently Exportkhleb behaved to complement overall planning within a centrally planned economy.

These past actions suggest that market failure is a general phenomena in agriculture and has been combatted in numerous ways, one of which is through state trading. This study has attempted to shed light on the economic and institutional dimensions of state trading in agriculture. We characterize state trading as existing when government, an agency of government, or an institution granted exclusive right by government controls trade or materially affects the conditions of trade on a transaction by transaction basis. This is distinct from trade conducted by private enterprise without direct involvement by government. Government

involvement that does not represent state trading includes the use of tariffs, quotas, phytosanitary regulations and other traditional rules under which private trade occurs.

With this broad characterization, it is apparent that state trading is a common means of carrying out business in international agriculture markets. A high percentage of commercial transactions in many agriculture products involve state trading in buying, or selling, or both. Direct state-to-state trading accounts for about one-third of total agriculture trade. Yet, despite its importance in agricultural markets little is known about how state trading affects international or domestic market performance.

This result is perhaps not surprising, since it is not only the impact of state traders which is poorly researched and defined, but the entire marketing structure which carries out agricultural trade. The state traders, as commercial entities, are small in size compared with transnational corporations, the largest of which are greater in size (as judged by total revenue) than many of the nation states that are signatories of the General Agreement on Tariffs and Trade (GATT). In this context, it is important to recognize that the marketing alternative to state trading is seldom that of perfect competition.

There are several reasons why we lack understanding and knowledge of state trading. First, state trading is inherently difficult to analyze, as is the case with imperfect competition in general (e.g. transnational corporations). Second, each country has developed its own unique mechanisms for operating state trading. In recent years, countries

have been changing the way they manage their state trading activities. Thus, no two countries' trading organizations are alike; and with frequent changes, systematic analysis is difficult.

This study has pointed out that state trading takes place within three very different environments: developed market economies, centrally-planned economies, and the developing world. In the developed world, for example, Canada, Australia, New Zealand, and South Africa use marketing boards for agricultural exports. Japan controls imports through state trading entities. The European Community's Common Agricultural Policy rigidly controls the details of transactions in grain exports. The United States operates its Export Enhancement and credit guarantee programs that influence transactions in world markets.

The rapid pace of change in Eastern Europe and the former USSR may result in many changes in state trading. As well, both the former USSR and the People's Republic of China (PRC) have sought membership to the GATT and the International Monetary Fund (IMF). Additional memberships from these areas will demand that the GATT develop workable rules for interfacing between market and non-market trading nations even as market oriented reforms progress.

Finally, many developing countries have extensive state trading networks. None are examined in this study. These countries, many of whom have been on the periphery of international trade negotiations, have received special and differential treatment under the GATT through exemption from many of the rules and obligations facing more developed countries. In the future, developing countries will comprise a larger share of global agricultural trade, and their state trading entities will play a larger role in determining world trade flows.

State Trading Objectives and Behavior

The six descriptive case studies of state trading entities in as many countries focused exclusively on grain, mainly wheat, as a means to narrow the scope of the analysis to manageable proportions. This single commodity focus also allowed authors to deal with a single international market across case studies. Four of the case studies dealt with exporters (Australia, Canada, European Community, United States) and two with importers (Japan, USSR).

The case studies reveal a wide diversity among the state trading entities in objectives, methods of operation, institutional relationships with government and with producers, and influence (intended or unintended) on the international market. The analysis both within and among the case studies is, of necessity, mainly qualitative since actual transaction price data was for the most part, unavailable to the study team. Still it is possible to draw some revealing inferences and conclusions about the differing roles of the case study state trading entities in their respective domestic markets and their impacts on the international wheat market.

A central issue is whether the objectives of state trading entities differ from those of each other and of private firms engaged in the similar delivery of goods and services, and if so, how do these differing objectives affect behavior, performance and the international market. As has been indicated earlier, state trading exists because a government wants to achieve market or policy objectives that are not possible if the market is left totally in the hands of private traders. Thus, since a state trading entity is an instrument of government policy, usually reflecting producer interests, it has different objectives than a private trader, almost by definition. In addition, the state trading entities themselves differ widely in their objectives and in their means to attain them. Let us describe

the inferred objectives and behavior of private traders and state traders in turn.

Private traders

The main objective of a private trader is to maximize profit. A grain sale by either a private or a state trader has associated with it a variety of activities that can provide a profit or a loss separate from the cash transaction itself. These activities may include storage, transport, and hedging on the futures market. They may also involve complex strategies regarding taxation and financial flows, both within a country and between countries. A trader may be willing to take lower profit or even a loss in any of the areas, including the cash transaction, if the overall package returns a profit.

In the static analysis, if the private trader is able to exert monopoly power, the solution is to limit quantity to the point where marginal cost and marginal revenue are equal and monopoly rents are extracted from both producers and consumers. But in the dynamic international market private traders, even when few in number, are seldom, if ever, able to operate as monopolists. Rather, they compete with each other for a relatively fixed quantity demanded in each specific market. As oligopolists, they will operate between the competitive solution and that of the monopolist. In any case, they will attempt to extract their profit from both producer and consumer. They will do so in the context of maximizing their individual through-put to individual markets, since their profits are based on a per unit of commodity traded.

In the grain trade, the private sector is dominated by five large, closely held private corporations (Cargill, Continental, Louis Dreyfus, Bunge and Andre). The private corporate structure, as opposed to a publicly traded company, allows corporate positions and strategies to be held within the company. They have strong market presences - local, national,

and international. Their global information networks are impressive and they are large enough that, if they choose to do so, they can influence government or work in partnership with government. On a smaller scale public corporations are also prevalent in the grain trade. In the 1970s and 1980s Conagra grew to become a significant player. And in specific regions of the world public corporations are dominant grain traders. For example, in Southeast Asia Japanese Trade Houses are powerful.

Canadian Wheat Board

The Canadian Wheat Board (CWB) operates both with different objectives and under a different environment from the private traders. The CWB is the sole marketer of wheat produced in Western Canada for sale to export markets or the domestic Canadian market for human food. As soon as the Canadian wheat crop is known in a given year, the CWB has a known, fixed quantity that they must either market or cause to be stored. Further, its prime objective is to maximize revenue to Canadian wheat producers.

As the sole purchaser and seller in the domestic market, the CWB has the opportunity to exert monopoly market power against both producers and consumers. But because their mandate is to maximize revenues for the producers, to the extent that monopoly power has been used by the CWB, it has been used on sales in the domestic market, with the CWB "profit" being passed on to the producers through the CWB price pooling mechanism. For the export market, the CWB is a sole "purchaser" of wheat from the domestic producers, but is a competitive, or at most an oligopolistic seller in the international market.

Three further elements must be considered in assessing the CWB's performance in the international market. The first is that the wheat exported from Canada is of consistent and

superior quality. Thus, the CWB can extract a quality premium over the world price in many importing markets. The CWB places a high emphasis on those markets willing to pay this quality premium.

Second, the CWB historically has made extensive use of long-term agreements (LTAs). LTAs are specified in quantity terms, with the price to be determined from the market at the time of sale. The quality premium is subject to negotiation on a contract-by-contract basis. In any case, the quality premium and LTAs often afford the CWB an advantage over its competitors in many export markets.

Third, all traders have their own market information networks and are privy to much of the same market information. However, the CWB may possess the additional advantage that they have information on the total Canadian supply and demand situation due to their central role in coordination.

In the final analysis, the CWB operates and behaves in a similar way to a private trader in the international market. As a single-desk seller of Canadian wheat in the world market, however, the CWB is able to take advantage of the quality factor in Canadian wheat exports through establishing a quality premium that cannot be eroded through competitive bidding by other sellers. Similarly, it can stabilize its sales of Canadian wheat through the use of LTAs, again taking advantage of being the single source of a differentiated product. To the extent that the CWB has been successful in maintaining a domestic wheat price above world market levels, domestic demand for wheat is reduced and more Canadian wheat is available for export. However, domestic market size and elasticity considerations suggest this impact to be very small.

The CWB's ability to maintain relatively high and stable prices domestically has changed

through 1) the shift from monthly to weekly and now to daily price setting (based on U.S. commodity and future markets), and 2) the Canada-U.S. Free Trade Agreement, which requires abandonment of Canadian licensing of wheat imports of bulk grain or products from the U.S. when support levels in the U.S. and Canada reach an equivalence as measured by a formula detailed in the CUSTA. This came into effect in May of 1991.

Australian Wheat Board

As with the Canadian Wheat Board, the prime objective of the Australian Wheat Board (AWB) is to maximize returns to Australian producers. Under recent changes in legislation governing the AWB, a second major objective is to maximize marketing opportunities for Australian producers.

The AWB has management control over the various elements of the system from farm gate to port, and thus can maintain a high quality standard. The AWB also uses LTAs, although not as extensively as the CWB.

Moreover, as of the 1989 legislative reforms governing the AWB and the Australian wheat market, the AWB is no longer the monopoly seller of Australian wheat for domestic use although it remains the exclusive seller of wheat for export. At the same time the AWB was authorized to trade in other commodities and from sources other than Australia.

The end result is that the AWB behaves and performs similarly to a farmer marketing cooperative. Farmers who sell their crop through the AWB receive dividends based on their share of the business and the trading profits of the AWB.

As with the CWB, the AWB gains some advantage as a single desk seller, particularly into those markets that prefer and are willing to pay a premium for Australian wheat. The AWB has no competition bidding down the quality

premium the AWB establishes for Australian wheat in export markets.

U.S. Commodity Credit Corporation

Unlike the CWB or the AWB with their single major objectives of maximizing producer returns, the CCC has multiple objectives and a wide latitude of authority to carry them out. While the domestic programs involving the CCC are complex, the CCC-related export programs operate quite simply. When market prices are below the loan rate, the CCC accumulates stocks under the nonrecourse loan provision of the domestic program. Thus looking only at the direct effect of CCC export programs, they either reduce the amount of commodities flowing into CCC stocks or reduce the size of existing commercial or CCC stocks.

Except in special cases, such as the 1983 Payment In Kind Program, once stocks are taken in by the CCC they can only be released in the domestic market if triggered by a market price substantially above the loan rate at which stocks are acquired. The export credit guarantee programs, to the extent that they create additional sales abroad, reduce available domestic market supplies, some of which might end up in CCC stocks in the absence of the program. The Export Enhancement Program allows for the release of CCC stocks into the export market, without the market price triggering release. From an internal stock management standpoint, EEP allows CCC stock reduction without regard to market conditions.

Various studies have estimated the additional exports of U.S. wheat under the EEP as ranging from about 10 to 30 percent, depending on the year and market conditions. These studies are highly dependent upon elasticity and market structure assumptions. Given that the European Community has matched the EEP subsidies with larger export payments of its own, the result has been lower world market prices. It is unclear to

what extent total trade might have increased due to the lower world prices, but the increase is likely to have been small given the relatively weak state of importers' economies during much of the period of EEP operation, the low level of price transmission to consumers from the world market in many importing countries, and the relative scarcity of foreign exchange available for imports, especially in heavily debt burdened importing countries. Thus the EEP has likely had a small positive effect on U.S. market share, but at the cost of lower world prices and lower total world export revenue for EEP commodities. Any increase in export volume by the United States resulting from the program will seldom be sufficient to offset the lower prices resulting in lower total export revenue.

The point with regard to this inquiry into state trading in agriculture is that the CCC with its wide mandate and considerable resources intervenes extensively in international market transactions to achieve its objectives. These interventions through the EEP have, at different times created mild to general havoc in that market. As a state trader, the CCC has the ability to affect the operation of the international market directly and has done so, sometimes forcefully.

European Community

The Common Agricultural Policy began mainly as a border protection device for six food-deficit countries. Its main objective was to provide incomes to farmers comparable to those of non-farmers and to insure consumers an adequate food supply. It was founded on three principles: a single agricultural market within the six member states, Community preference given to domestic products within the internal market, and common financial responsibility.

Through time, the CAP has been updated to meet changing conditions. Two major changes have been the enlargement of the original six-

country common market to the present twelve and the shift from a food deficit to a food surplus region. Efforts to export unneeded food supplies involve direct intervention in market transactions through an export tender system.

An export restitution or subsidy is employed along with the variable import levy to maintain price support levels domestically while pricing export commodities at much lower levels. The resulting budget cost for subsidizing cereal (except rice) exports, including food aid, has averaged about 2,928 million ECUs over the period 1988 through 1990 [2]. These larger quantities of exports have lowered overall world wheat prices from levels that would have prevailed in the absence of the restitutions. The Community has employed a variety of measures to restrict supply and slow the growth of exports, however, these have not fully offset the incentive to increase production due to the high producer prices.

Both the EC and the U.S. affect export transactions through subsidies paid directly from the treasury while the CWB and the AWB are only backstopped within a crop year by their respective treasuries in the event that a shortfall occurs. If deficits do occur due to the payment guarantee, it is an unintended subsidization and the payment is adjusted the following year to reflect new market realities. Given the size of the treasuries in the U.S. and the EC and their willingness to spend, the volume of production, and the tendency to counter each other's efforts to subsidize exports, the EC and the CCC have the potential to and, in fact, do have a much larger impact on the international wheat market than do the CWB and the AWB.

It is clear that state trading has contributed to a wheat market outcome far different than would have existed in its absence. The total volume of grain sold probably is increased only marginally by subsidized prices but the market destinations can be altered by the availability of subsidies.

Thus, a large portion of the budget expenditures for wheat subsidies appear to be lost in competing for specific market outlets and achieve little in overall sales gain.

Exporter State Traders Compared

It is clear that the four exporting state traders differ not only from private traders but also from each other in their objectives, behavior, and impact on the international market. The CWB and the AWB are alike in their objectives but differ in the means used to achieve them. While both are single desk sellers into the international market, neither is a monopoly trader of wheat in its domestic market. The CWB retains the franchise for both domestic and export wheat produced in its designated area and issues export licenses for wheat in the rest of Canada. By setting domestic prices above export prices, domestic Canadian demand is reduced and more wheat is available for export. This has a price depressing effect on the international market. A rough relative approximation of the size of this impact in Canada and the EC is shown below.

The EC objective is to export wheat produced in excess of domestic requirements. Export subsidies are provided in the amounts necessary to fulfill that objective. By maintaining high domestic prices without fully offsetting supply controls the EC has an impact on the world market in two ways. First, the producer support price pegged higher than world market clearing prices brings forth a higher volume of production that moves into export markets. Second, the high domestic price reduces domestic demand and makes even more of the production available for export.

A hypothetical example of the relative impact on the international market of maintaining consumer prices of wheat above world market levels by the EC and Canada is instructive. In this example assume that both countries maintain domestic prices 25 percent above world market,

(e.g. \$200 per metric ton), that domestic demand elasticity with respect to price in both countries is 0.3, that the demand elasticity with respect to price in the international market is 0.7, and that the world market price for wheat is \$160 per metric ton. Further assume that domestic consumption of wheat in Canada is 6 million metric tons and in the EC is 60 million metric tons, and world wheat trade is 100 million metric tons.¹ These volumes approximate recent magnitudes.

If Canada moved domestic prices to world market levels under these assumptions the domestic market would take an additional 360 thousand metric tons. This would strengthen prices in the international market by about 82 cents per ton. The same percentage decrease in domestic price in the EC would increase domestic consumption by 3.6 million metric tons, strengthening the world price by about \$8.20 per ton. Because domestic wheat utilization in the EC is about 10 times that in Canada, reducing domestic prices by the same percentage with the same assumed elasticities shows the EC to have 10 times the Canadian impact on the world market. The Canadian impact is almost insignificant, the EC impact is significant. In reality the EC impact would be even larger because domestic prices generally run more than 25 percent above world prices while the Canadian impact would vary as in some years domestic and export prices tend to converge.

The U.S. objective is somewhat less clear cut. The export credit programs have elements of market development, stock reduction, maintaining market share, and through the interagency process, foreign policy. Similarly, the Export Enhancement Program has elements of retaining market share, punishing the EC for subsidizing exports (fight fire with fire), and again through the interagency process, foreign policy, although perhaps less so than for export credits.

The EEP was designed as a precision instrument to move U.S. wheat into those markets where the EC was subsidizing their wheat exports, primarily North Africa and the Mid East. But relatively early in the history of the program, the USDA succumbed to political pressure and expanded its use to almost all wheat (and other) markets worldwide. The Soviet Union, China, and North Africa are the most prevalent EEP markets today. Thus individual markets were taken and prices reduced to all wheat exporters, not just the EC. In fact the EC response to the EEP was to increase their own subsidies (fight fire with fire). If one simply asks the question, "During the period of the EEP did the EC export less wheat than they otherwise would in the absence of the EEP?", a look at export volume and ending stocks held by the EC would lead one to answer, "No" (Table 1). But it became very costly for the EC to compete with the EEP. EC restitution expenditures went from \$365 million to \$1.8 billion from 1985 to 1988. Table 1 suggests that the impact of the EEP on market share controlled by the United States has varied widely between years. The EEP began in 1986 with total EEP sales of \$805 million. In that year, U.S. wheat market share increased 1.9 percentage points from 29.4 percent to 31.3 percent while the EC market share dropped slightly 0.3 percentage points from 18.4 percent to 18.1 percent. At the same time Canadian market share went up 5.5 percentage points from 17.4 percent to 20.4 percent and Australian market share declined 2.5 percentage points from 18.8 to 16.3 percent.

In 1987, total EEP sales more than doubled to \$1,697 million. U.S. wheat market share shot up by 10 percentage points to 41.3 percent while the EC market share declined 4 percentage points to 14.1 percent. Canadian market share lost only 0.4 percentage point to 22.5 percent while Australian market share slipped 4.7 points to 11.6 percent. It should be noted, however that EC export volumes increased and Canada had record exports of wheat and sharply reduced

ending stocks. Part of the decline in Australian market share and export volume can be accounted for by lower production with both harvested area and yield down and increased domestic consumption in part related to lower world and domestic prices. Australian ending stocks in 1987 were down 1 million metric tons from the previous year.

In 1988, despite a further almost doubling of total EEP sales to \$3,170 million, U.S. wheat market share declined by 2.5 points to 38.8 percent while the EC market share climbed 7.6 points to 21.7 percent. The Canadian market share fell by 8.6 percentage points to 13.9 percent mainly due to a severe drought that reduced production by 10 million metric tons. Ending stocks in Canada were reduced by 2.3 million tons to about 5 million tons. Australia recovered some export volume and market share but remained far short of pre 1987 levels.

In 1989, EEP sales declined slightly to \$2,919 million. U.S. market share declined another 4.1 percentage points to 34.7 percent, EC and Australia market shares remained virtually the same at 21.7 and 11.3 percent respectively, while Canadian market share partially recovered with a 3.7 point increase to 17.6 percent but was still below the 1987 levels.

Finally in 1990, total EEP sales were \$2,389 million. U.S. market share continued down by 6 points to 27.5 percent while market shares of the EC, Canada, and Australia remained virtually unchanged.

In looking at the 5 year picture it appears that 1987 is the only year that U.S. market share increased significantly, at the expense of the EC and Australia. The EEP may have been partially responsible, but a lower loan rate and a lower value of the dollar should also receive due credit. Australian market share dropped at least partially for other reasons. Since 1987, U.S. market share has been dropping, despite substantial increases

in EEP wheat sales, and the EC market shares in the last 3 years were at record high levels. Thus to the extent that the EEP has been effective in increasing U.S. market share (and it is not at all clear that it has) it appears to be at the expense of Canada and Australia, and perhaps Argentina and others, rather than at the expense of the EC.

Two other case studies are presented in this report. Both the USSR's Exportkhleb and the Japanese Food Agency are importing state traders with respect to wheat.

The Soviet Union - Exportkhleb

Along with the rest of the Soviet economy, Exportkhleb, the agricultural state trading entity, is undergoing change. Until recently, however, Exportkhleb was the monopoly importer of agricultural products into the Soviet Union and the monopoly exporter of Soviet agricultural products. As the single desk purchaser of imported grains, including wheat, Exportkhleb could have used its market power to extract monopoly rents from both exporters and domestic consumers by limiting quantities imported. This was not the case, however, since they operated in a command structure with domestic prices fixed by the state and import levels determined by the state. Domestic prices were well under world price while consumer prices have historically remained very stable. Exportkhleb purchased and imported the amounts they were instructed to acquire by the central planners. Their main advantage as a single desk buyer was some price, credit, and contractual terms concessions due to the high volume of their purchases. This could also work to their disadvantage, however, because world market prices strengthen when it becomes known that the Soviets are buying or about to buy. While presently the Soviet Government has long term agreements with Canada, the United States, and Argentina, Exportkhleb uses determinants such

as quality, price, and contractual terms in its purchasing decisions.

With the reforms underway and contemplated, Exportkhleb expects to become a very different entity, perhaps resembling a very large for-profit trading company. Exportkhleb has lost its monopoly on agricultural exports from the Soviet Union and expects shortly to lose its monopoly on agricultural imports. It now has the option of importing or exporting any product it cares to, including nonagricultural goods. Its relationship to the State is changed from command to contractual. And it will likely step up its hedging operations on agricultural transactions on the newly organized Moscow commodity exchange. Exportkhleb expects to become a large and powerful private enterprise on the world trade scene, with its state trading era ended. The expected transformation of Exportkhleb depends heavily on the overall reform process in the USSR which at this writing is uncertain.

Japanese Food Agency

Japanese food policy is dominated by the perceived national need for food security and seeks to satisfy this need by influencing both production and consumption. Rice production in Japan is not only economically important but is traditionally and historically tied to the social and cultural fabric of the nation. Thus rice policy is a highly charged political issue which influences all other agriculture and agricultural trade policy. And rice policy is geared to keeping Japan self-sufficient in rice production. To do so, rice producer prices in Japan are maintained at several times the world price while imports are not allowed. In order to maintain the high rice prices, the prices of other foodstuffs, especially rice substitutes such as wheat, also must be maintained at levels much higher than world market prices. The Ministry of Agriculture, Forestry, and Fisheries, through the Japanese Food Agency (JFA), maintains total

control of imports of all food stuffs and sets domestic prices. The JFA is, therefore, the monopoly import buyer of agricultural products and the monopoly supplier and price setter in the domestic market of imported and domestically produced agricultural products.

The impact of JFA activities on the world market stems from the total control of import and export quantities of food and feedstuffs to achieve domestic policy objectives. While difficult to quantify, clearly the Japanese import market for agricultural products, including wheat, is strongly constrained by government policy and the activities of the JFA in carrying out that policy.

In comparing the two importer state trading entities, their objectives are clearly different. Exportkhleb, under the USSR command system, simply carried out the orders of the central planners. The central planners determined the quantities of wheat and other agricultural products to be imported, based on domestic production levels and the import gap requirement to satisfy the plan. If all of the reforms contemplated by Exportkhleb are carried out, it will no longer be a state trader, but rather a large joint stock trading company. Time will tell whether all these changes occur. The JFA objective is to manage imports to meet domestic food needs and fulfill domestic pricing objectives.

State Traders Summarized

In sum, Table 2 applies the structure and potential action-impact taxonomy for state trading spelled out in the discussion and Table 1 of Chapter II, to each of the 6 case studies of state trading in wheat. The table implies that the impacts of state trading are much more related to the sheer relative size of the country's market share and the country's willingness to commit budget resources than to the type of economy or

the institutional or organizational form of the state trading entity.

State Trading as it Relates to the GATT

State trading is not handled effectively in the General Agreement on Tariffs and Trade (GATT). As pointed out by one delegate to the United Nations Conference on Trade and Employment which resulted in formulation of the GATT, "We should be aware of attempting to legislate too precisely to meet the case of state enterprises, not out of any feeling that state enterprises should be put in a privileged position, but rather from the feeling that the first essential of sound legislation is that we should be thoroughly familiar with what we are legislating about" [1]. More than 40 years later that perspective prevails and it is apparent that the present GATT measures dealing with state trading lack in precision and completeness.

The Uruguay Round of GATT which for the first time emphasized agriculture may begin to exert pressure to more explicitly define state trading and to develop mechanisms within the GATT context to relate state trading to the obligations undertaken by the contracting parties. In the Uruguay Round of GATT talks, domestic agricultural policies came under negotiation. As future negotiations are undertaken, and discussion focuses on the full scope of domestic policies affecting agriculture and food, state trading and its role in protecting domestic producers and/or consumers may emerge as an important component of policy for some commodities in some countries. But little progress has been made in defining state trading or developing uniform mechanisms to relate state trading to the obligations undertaken by the contracting parties.

We have argued that state trading exists when government, an agency of government or an institution granted exclusive right by government controls or influences trade on a transaction by

transaction basis. While this statement does not lead to a precise specification of the nature and extent of government involvement it does provide an operational concept that defines state trading².

The essential distinction is control or influence of trade on a transaction by transaction basis rather than establishing rules within which private transactions take place. With this distinction state trading includes trade by government chartered trading monopolies as well as the EC export tender system, the U.S. Export Enhancement Program, and other situations where decisions are made on a case by case basis whether to export more or less, whether to influence price, or in other ways affect the terms of sale. In this framework state trading of agriculture products is widespread and is relevant to future implementation of the GATT.

The clear message of article XVII of the GATT is that the framers of the agreement perceived state trading in terms of state enterprise or enterprise granted exclusive or special privileges and that these enterprises should act in accordance with the overall principles and obligations of the General Agreement. Over time it has become apparent that this interpretation of state trading is too narrow and that the goal of containing state trading activities within the original principles of GATT has not been realized. Both the volume of agricultural products and institutional forms involved in state trading activities have increased. These trends represent a challenge to GATT to ensure that state trading activities are consistent with all articles negotiated within GATT. This goal has not been achieved and accordingly procedures need to be developed to relate the activities of state trading to several key elements of the GATT structure.

Important articles that need to be taken into account in seeking to relate the diverse pattern of state trading to existing GATT principles

include: 1) Article III that deals with use of taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amount or proportions to protect domestic production; 2) Article VI that deals with anti-dumping and countervailing duties aimed at situations where the products of one country are introduced into another country at less than the normal value of the products in the exporting country; 3) Article XI that prohibits the use of restrictions other than duties, taxes or other charges whether implemented through quotas, import or export licenses or other measures on either imports or exports; 4) Article XIII that prohibits restrictions on imports from or exports to any country unless such restrictions are applied to like products of other countries; and 5) Article XVI that deals with subsidies, including any form of price support, which operate directly or indirectly to increase exports of any product from, or to reduce imports of any product into a signatory member of GATT.

Governments may utilize state trading entities or practices in implementing their efforts to establish or maintain internal support programs, border restrictions on market access or export subsidies. The role of state trading in these activities is sometimes apparent (e.g. the U.S. Export Enhancement Program) and at other times not apparent (e.g. control of quantity by an importing monopoly such as the Japanese Food Agency). A major challenge facing the GATT, therefore, is to find ways to define and identify these activities and link them to existing provisions or if necessary elaborate new and expanded codes to address problems and issues created by state trading as these relate to the principles and obligations contained in the GATT.

In dealing with the role of state traders and their link to the GATT, two additional dimensions of the international order in agricultural, as well as other products, need to receive special attention. These are: 1) the implications of state trading for growth and development in less developed countries (LDCs), and 2) how improved trading relations and economic interface can be achieved between market and non-market economies.

In the case of LDC development, a lengthy article (no. XVIII) deals with how the principles and obligations of the GATT relate to the role of governmental assistance and achieving economic development. Article XVIII states that "a contracting party the economy of which can only support a low standard of living, and is in the early stages of development, shall be free to deviate temporarily from the provisions of the other articles of this agreement as provided in sections A, B, and C of this article." Sections A, B, and C of Article XVIII in turn, approach the problem of linking GATT to development largely in terms of granting concessions to LDCs on tariff measures imposed by other countries on exports by LDCs or by permitting LDCs relief through measures to protect their developing industries. Part V of Basic GATT Instruments seeks to improve LDCs trade positions by foregoing reciprocity in commitments and by urging that priority be given to reduction and elimination of barriers to LDC exports. The GATT approach, thus, is to grant concessions from its overall principles of reciprocity and liberalized trade where this is deemed to be warranted to promote economic development in poor countries.

Article XVIII does not specifically seek to link special provisions for LDCs to provisions on state trading in Article XVII. The need to explore this question seems highly relevant in-as-much-as state controlled trading monopolies are widespread in LDCs. They provide a variety of functions that might otherwise be difficult to

achieve. Without the marketing boards in many LDCs market failure may occur. This is particularly true in attempting to develop market systems for national coverage or to enter world markets. Internal private capital and managerial capacity, information systems and marketing facilities, as well as inputs needed for expanded production are in short supply in most poor countries. These could be obtained from large multinational private enterprise but often at a high cost. Most poor nations, therefore, choose to provide the necessary systems by establishing marketing boards or other forms of state monopoly. In some cases state monopolies assemble research and educational resources that otherwise would not exist. In other cases they represent the only viable approach to collecting government revenues and of implementing government assistance and development programs. Without these organizations market and economic development would be seriously impeded.

Dealing with these longer term economic and institutional issues in an international trade context will require that the GATT broaden its perspective on how trade linkages between LDCs and other countries can be implemented, as well as, how policy and institutional systems for international trade relate to policy and institutions for domestic concerns within LDCs. These issues suggest a major future challenge for improvement in the GATT.

Toward a Broader GATT view

This study has sought to present a perspective on the nature of state trading as it exists in the international wheat market. Our approach has been to develop at the outset an analytical framework by outlining the economic and institutional dimensions of state trading through consideration of the following four questions: 1) what is state trading, 2) why does state trading exist, 3) how are trading results effected, and 4) how is state trading implemented. This was followed by case studies designed to describe the

institutions and procedures used in six diverse country situations.

Within this framework a number of issues need to be resolved to more effectively incorporate state trading into the GATT framework. These are as follows:

1. Information: Sufficient information must be obtained to determine where state trading exists, what kinds of linkages exist to domestic policies, programs and philosophical positions, how state trading activities relate to development programs and economic plans, and how markets are affected by state trading activities.

2. Notifications: Notification procedures need to be established that will transfer all available information to the international community to facilitate settling of disputes related to state trading activities that create international conflict. Procedures need to be devised to avoid market disturbing actions as in the USSR grain deal of the early 1970s and the "shot across the bow" as in the U.S. wheat flour sale to Egypt.

3. Obligation to Negotiate: Obligation must be obtained to negotiate limits of protection through state trading activities in a meaningful way. Ways must be devised to bridge the gap between the objectives and operating procedures in diverse market and institutional systems[3].

4. Consistency: Methods must be devised to deal with the variety of interventions both by importers and exporters related to domestic support, import access, export subsidies and other impediments. While this is an issue for the GATT it is essential that the state trading article be consistent with agreements in these areas.

These and a variety of other procedural and content related issues will have to be resolved by countries seeking to negotiate specific conditions that might apply to and be incorporated into rules designed to guide the diverse activities and practices among state trading entities. This suggests that the first step in developing effective

application of GATT disciplines to state trading is to persuade major countries involved to agree to conditions that are a necessary basis for negotiating rules and disciplines. This means that countries would have to agree to provide the necessary information, they would have to agree to an effective process of notification, and they would have to agree that they would in good faith negotiate rules to guide state trading within the context of the overall GATT framework. When these agreements are reached negotiation to define the necessary GATT disciplines can effectively begin. An expanded membership in the GATT to include newly reforming countries as well as additional developing countries would increase the urgency of making changes needed to effectively deal with the question of state trading. In any event, it should be noted that achieving a comprehensive incorporation of state trading activities into the GATT disciplines probably will require substantial institutional and procedural innovation within the GATT.

ENDNOTES

1. In Canada, approximately one-third of domestic consumption is food, one-third is feed, and the remaining one-third is seed. This estimate includes all three categories.
2. In this context it should be noted that the GATT is a legal document that in its present form has been subject to continuous interpretation - especially through dispute settlement procedures. This will necessarily be true of any additions to the GATT instruments and documents that encompass state trading.

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- 2) Commission of the European Community, "The Agricultural Situation in the Community: 1989 Report", Brussels, 1990, computed from information in table 3.4.4.
- 3) Jackson, John H., Restructuring the GATT System Printers Publishers Limited, London 1990.

Table 1: Wheat Exports, Market Share and Ending Stocks, U.S., EC-12, Australia, Canada and Rest of the World, 1980-90.

	U.S.			EC-12			Australia			Canada			Rest of World		
	Exports MMT	Market Share %	Ending Stocks MMT	Exports MMT	Market Share MMT	Ending Stocks MMT	Exports MMT	Market Share %	Ending Stocks MMT	Exports MMT	Market Share %	Ending Stocks MMT	Exports MMT	Market Share %	Ending Stocks MMT
1980	41.2	43.8%	26.9	15.7	16.7%	11.6	9.6	10.2%	2.0	16.3	17.3%	8.5	11.4	12.1%	64.2
1981	48.2	47.6%	31.5	15.7	15.5%	9.8	11.0	10.9%	4.8	18.4	18.2%	9.7	7.9	7.8%	57.3
1982	41.1	41.6%	41.2	16.3	16.5%	12.4	7.3	7.4%	2.3	21.4	21.6%	10.0	12.7	12.9%	64.3
1983	38.9	38.1%	38.1	15.5	15.2%	8.8	10.6	10.4%	7.5	21.8	21.3%	9.2	15.2	14.9%	82.0
1984	38.1	35.6%	38.8	18.5	17.3%	16.4	15.8	14.8%	8.6	19.4	18.1%	7.6	15.2	14.2%	93.1
1985	25.0	29.4%	51.8	15.6	18.4%	16.3	16	18.8%	5.9	14.8	17.4%	8.6	13.6	16.0%	85.6
1986	28.4	31.3%	49.6	16.4	18.1%	17.1	14.8	16.3%	3.8	20.8	22.9%	12.7	10.3	11.4%	93.2
1987	43.4	41.3%	34.3	14.8	14.1%	15.7	12.2	11.6%	2.8	23.6	22.5%	7.3	11.0	10.5%	88.4
1988	37.6	38.8%	19.1	21.0	21.7%	12.1	10.8	11.2%	2.6	13.5	13.9%	5.0	13.9	14.4%	78.4
1989	33.5	34.7%	14.6	21.0	21.7%	12.9	10.9	11.3%	2.9	17.0	17.6%	6.5	14.2	14.7%	81.5
1990	27.5	29.6%	26.9	20.0	21.6%	15.7	10.5	11.3%	4.1	17.5	18.9%	14.9	17.3	18.6%	82.9

SOURCE: Time Series Data Tape, ERS, USDA, 1991, and World Grain Situation and Outlook, FAS, Circular Series, January 1991.
Exports are based on a June/July marketing year.

TABLE 2: A STRUCTURE AND ACTION - IMPACT TAXONOMY FOR STATE TRADING IN WHEAT

Case Study	Use							
	Affect Quantity Traded	Affect World Price	Affect Domestic Price	Differentiate Domestic and Intn'l Markets	Target Sales or Purchases	Enter Long Term Sales or Purchases	Confidential Purchase or Sales Strategies or Liquidation	Affect Rate of Stock Accumulation
Australia ¹	no	no	no	no	no	yes	yes	no
Canada ²	?	?	no ³	yes	no	yes	yes	no
EC	yes	yes	yes	yes	yes	no ⁴	no ⁵	yes
Japan	yes	yes	yes	yes	no ⁶	yes	yes	no
Soviet Union	yes	yes	yes	? ⁷	no	no	? ⁷	yes
U.S.	yes	yes	yes ⁸	yes	yes	no ⁹	no ⁵	yes

¹ Australia's Wheat Board does not differentiate domestic and international markets nor does it have the capacity to accumulate and hold significant stocks. Thus, it has no appreciable affect on quantity traded, or on world or domestic price.

² To the extent that the CWB differentiates the domestic and international market, it affects quantity traded, world and domestic prices. Due to the relatively small size of the domestic market the effect on quantity traded and world price is minimal.

³ Historically yes. Under current price system Canadian domestic price is competitive with U.S. cash and future price.

⁴ Individual EC countries (i.e. France) have infrequently signed LTAs, for example with the USSR.

⁵ EC and U.S. intervention activities are transparent, however, the private traders that carry out transactions keep details confidential.

⁶ Japan does, however, maintain a rough market share among suppliers for diversification and food security purposes.

⁷ Unknown.

⁸ Feedback effects from international market interventions can have both positive and negative effects on domestic price. Net effects are indeterminate.

⁹ The U.S. Government signs LTAs. Since the U.S. Government does not trade, and cannot enforce LTA obligations on private traders, these are "best efforts" agreements only.

