WORLD TRADE FLOWS IN MAJOR AGRICULTURAL PRODUCTS

Report to the United States Senate Committee on Finance on Investigation No. 332-194, Under Section 332 of the Tariff Act of 1930

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COMMISSIONERS

This report was prepared principally by

members of the
Agriculture Division, Office of Industries,
and the Office of Economics

Vern Simpson, Acting Director
Office of Industries

Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

PREFACE

The Commission instituted the present investigation on September 17, 1984, following the receipt of a letter of request therefor on August 16, 1984, from Senator Robert J. Dole, Chairman, U.S. Senate Committee on Finance. The investigation was conducted under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332 (g)) for the purpose of gathering and presenting information on world trade flows in major agricultural products. 1/ Specifically, the Commission was asked to examine U.S. and world trade in broad commodity areas (e.g., grains, oilseeds, animal products, fruits, and vegetables) to determine trade patterns, what shifts have taken place, and the reasons for the trade patterns and shifts. The Commission was also asked, to the extent possible, to report on commodity cycles, wage rates, exchange rates, transportation costs, trade barriers, government targeting practices, and other pertinent factors of competition affecting overall agricultural trade and the U.S. position in world agricultural trade.

Public notice of the investigation was given by posting copies of the notice at the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register of September 26, 1984 (49 F.R. 37862). 2/

The information presented in this report was obtained from submissions received from interested parties, the Commission files, private individuals and organizations, and Government sources.

1/ The request from the U.S. Senate Committee on Finance is reproduced in app. A.
2/ A copy of the Commission's notice of investigation is reproduced in app. B.

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Exports are now fundamental to the health of U.S. agriculture. In 1983, exports were equivalent to one-fifth of total U.S. cash receipts from farming. Exports were equivalent to 58 percent of farm marketings of wheat, 85 percent for rice, 40 percent for feed grains, 52 percent for soybeans, 34 percent for cotton, and 41 percent for tobacco. The value of U.S. exports of agricultural products peaked in 1981 at $43.4 billion after more than a decade of rapid growth and then declined to $36.1 billion in 1983. U.S. imports of agricultural products peaked in 1982 at $17.4 billion; they amounted to $15.4 billion in 1982 and $16.6 billion in 1983. The recent drop in U.S. agricultural exports is attributed to the worldwide economic recession, foreign debt problems in many developing countries, the strong U.S. dollar, and government policies and programs of the major exporting and importing nations. Other major factors affecting agricultural trade include the pricing policies of the nonmarket economy countries, weather, production costs, and transportation costs.

1. Major factors affecting agricultural trade.

o <u>Reduced world economic growth</u>.

Economic growth affects the supply of, and demand for, agricultural products. World economic growth (output) began to expand in 1983 and 1984 following the worldwide recession in the early 1980's. Real output in the developed countries increased by only 1.3 percent in 1980 and by 1.6 percent in 1981, while output in 1982 actually declined. In 1984, output showed a healthy gain of 3.6 percent in the developed countries, although the growth level was still below prerecession levels. The developing countries faced a similar reduction in growth rates. Output in the developing countries grew by 3.3 percent in 1980, 1.2 percent in 1981, and 0.1 percent in 1982. Output recovered in 1983 and 1984 but remained below the 5.7 percent average annual rate exhibited before the recession.

o <u>External debt increases</u>.

Debt-servicing responsibilities have affected certain countries' imports of agricultural products. Throughout the early 1980's a large number of developing countries experienced difficulties meeting their debt-servicing obligations. In order to generate foreign exchange, indebted countries cut back their imports. Since many of the more severely affected debtor countries were also major purchasers of U.S. agricultural products, U.S. farm exports to those countries were particularly affected. For example, from 1981 to 1982, the 47 percent decline in the value of agricultural exports to the three most heavily indebted countries (Mexico, Brazil, and Argentina) far exceeded the 15.5 percent decline in the value of total exports of U.S. agricultural products.

o The strong U.S. dollar.

The value of the dollar relative to foreign currencies affects the competitiveness of U.S. agricultural products abroad. The recent appreciation of the dollar in foreign exchange markets is an important cause of the decline in U.S. agricultural exports. An examination of the effects of the appreciation of the dollar, on a real trade-weighted basis, indicates that a one percent appreciation of the dollar reduces the value of exports between 0.54 to 1.03 percent. Thus, for example, the 13.9 percent appreciation of the dollar between 1981 and 1982 accounted for 46 to 88 percent of the actual decline in U.S. agricultural exports during the same period.

o Impact of Nonmarket Economies.

The nonmarket economy countries (NME's) have been a source of variability in world agricultural markets. The NME's have generally established policies that maintain food prices at or near the previous year's level. These policies have resulted in instability at times in the world agricultural export markets because of the inability of the marketing system to take into account the marketing conditions within the NME's.

Since 1979, the NME's have purchased fewer U.S. agricultural products. U.S. agricultural exports to the NME's declined by over one-half from 1979 to 1983 (from $5.8 billion to $2.8 billion), but then recovered in 1984 to $4.2 billion. The reversal of the declining trend in U.S. exports to the NME's during 1979-83 came about in 1984 as the Soviet Union sharply increased its purchases of U.S. grain. As a group, the NME's purchased 11 percent of the $38 billion of U.S. agricultural products exported in 1984, representing a decline from their 17-percent market share in 1979.

o Weather.

Weather is one of the principal short-term factors affecting year-to-year shifts in crop yields, export supply, and import demand. In the United States, for example, the variation of annual crop yields increased from 8 percent during 1964-68 to 13 percent during 1979-83 for corn, from 3 to 6 percent for wheat, and from 5 to 9 percent for soybeans.

o Production costs.

The cost of producing agricultural products affects the competitiveness of these products in international markets. A direct comparison of foreign and U.S. agricultural production costs is difficult and not easily generalized. The cost of production of U.S. farm products has risen sharply during the past several years, although prices received by farmers for their products rose by only 4 percent from 1979 to 1984. The prices paid by U.S. farmers for all production inputs rose by 33 percent from 1979 to 1984.

Alternative indicators of production costs show a consumer price rise of 48 percent from fiscal year 1979/80 to 1983/84 for 27 foreign countries, while U.S. consumer prices rose 20 percent in the same period. For agricultural exports from all countries, nominal U.S. dollar prices on an average increased during 1979-83 (compared with those of the previous 5-year period), but deflated (relative to manufactured goods) or real prices of agricultural goods fell. For specific individual commodities for which data have been reported consistently, prices for U.S. and foreign competitive commodities have moved in the same direction.

o <u>Transportation costs</u>.

Most international trade in agricultural commodities is dependent on ocean freight. Freight costs are an important component of the landed cost of commodities in foreign markets. Ocean freight rates for bulk grain shipments increased from 1979 to 1980 and then generally declined through 1983 (reflecting the decline in international trade and the increase in the number and capacity of bulk carriers). Rates in 1984 generally increased, but 1984 rates were still substantially below the rates in 1979 and 1980. A comparison between bulk grain freight rates from U.S. and Argentine ports to the same markets in 1984 indicated that the United States had a comparative advantage in all instances.

U.S. cargo preference laws require that at least 50 percent of all U.S. Government-owned or financed cargo shipped between U.S. and foreign ports be carried on U.S.-flag ships. U.S.-flag vessels offering charter service generally are higher cost than foreign-flag charter vessels. Public Law 480 cargo accounts for most of the cargo moved under cargo preference. The U.S. Department of Agriculture must pay the difference between foreign-flag and U.S.-flag costs if higher cost U.S.-flag ships are used to ship Public Law 480 goods just to comply with cargo preference laws. A recent court decision held that cargo preference laws also apply to shipments under the blended credit program. The payment for this difference in 1980 was $58 million, with individual differences ranging up to $100 per ton. With a fixed ependiture under government-assisted export programs, cargo preference results in a lesser amount of product being exported than would be the case if cargo preference did not exist.

o <u>Government programs</u>.

World agricultural trade is strongly influenced by government programs, both U.S. and foreign, as virtually all governments attempt to control and influence the production, distribution, and consumption of food. This influence is exerted through a wide variety of mechanisms. Most countries have programs designed to encourage agricultural production and support farm income. Most major producers and exporters offer some form of minimum guaranteed prices for producers and utilize government assisted export programs to encourage sales in world markets. Importing countries generally regulate agricultural imports through levies, tariffs, quantitative restrictions, and non-tariff barriers to protect their domestic industries and domestic agricultural support programs, or to control currency flows.

Bilateral or multilateral agreements have played an increasing role in world trade in particular agricultural commodities. For example, the number of long-term grain agreements between major exporters, Argentina, Australia, Canada, and the United States, and major importers, particularly the USSR and China, have increased during the 1980's. About 90 percent of Soviet grain imports come from countries with whom the Soviets have grain agreements. These agreements have affected trade flows and have provided incentives for increased production by some countries.

2. Trade patterns.

- The value of world agricultural trade peaked in 1980.

The value of world agricultural trade (exports), as reported by the United Nations, peaked in 1980 following a 16 percent increase from the level of trade in 1979. Trade decreased in each of next two years and was 2 percent higher than the 1979 level. The developing countries suffered a 10-percent decline in the value of their exports during 1979-83. During the same period, the developed countries experienced an increase of 4-percent in the value of their exports.

- World trade in agricultural products has shifted from low value products toward high value products.

World trade in high-value farm products (HVP's) (high unit value or processed products) was estimated to have accounted for nearly one-half of the world trade in agricultural products in 1984, up substantially from its share in the 1970's. The effect of increased affluence and changes in diet in developing countries can be seen in the countries that account for the bulk of the imported HVP's. In 1980, the European Community, the United States, Japan, and Canada accounted for nearly two-thirds of the HVP imports. However, their share was down from that in 1970, when the developed countries accounted for 77 percent of the HVP imports.

Total agricultural exports by the United States and the seven other largest agricultural suppliers increased during 1979-83. During 1979-82, the U.S. share of agricultural exports by the group of eight suppliers declined from 42 to 34 percent. Low value products (LVP's) accounted for nearly all of the decline. The U.S. share of LVP exports by the group of eight suppliers declined from 58 percent in 1979 to 55 percent in 1982. The United States lost LVP market share to Canada and the EC-10 as they increased their share of the world market for wheat and to Brazil, as Brazil increased its share of the world market for soybeans.

During 1979-82, HVP's accounted for 52 to 54 percent of the eight suppliers agricultural trade. The U.S. share of HVP's market was virtually unchanged during 1979-82 at 26 percent.

- o U.S. agricultural exports retained or increased their market share in most world marketing regions.

The United States was able to retain or increase its market share in most of the 13 major world marketing regions during 1979-83. Notable exceptions included trade with Eastern Europe, the U.S.S.R., and the EC. U.S. exports ($4.8 billion) to Eastern Europe and the U.S.S.R. in 1979 accounted for 48 percent of the agricultural exports to that region by the group of eight suppliers. The U.S. share of the agricultural trade to this region declined to 24 percent ($2.7 billion) in 1982 and continued to decline in 1983.

U.S. trade with the EC peaked in 1982 at $8.6 billion. The U.S. accounted for 52 percent of the EC-10 imports from the major suppliers in that year. However, U.S. trade with the EC-10 decreased dramatically in 1983, to $7.6 billion. The U.S. share of the EC-10 imports from major suppliers declined from 73 to 57 percent. All of the loss in market share was accounted for by low value products.

3. Trade flows, by commodity group.

Grains.

- o World grain production and trade have both increased since 1979.

World grain production increased 4 percent from 1979/80 to 1983/84, although it fell slightly following a record year in 1982/83. Wheat and rice led the increase with gains of 16 percent and 9 percent, respectively, which continued their long-term upward trend. Coarse grain production rose from 1979/80 to 1982/83 but fell precipitously in 1983/84 owing to drought and acreage reduction programs in the United States.

World grain trade, which accounts for about half of international trade in agricultural products, increased 7 percent from 1979/80 to 1983/84, although trade the last 3 years was below the record set in 1980/81. Trade in wheat accounted for all of the increase over the period, while trade in coarse grains was lower in 1983/84 than in 1979/80 and trade in rice fell in 1983/84 to its 1979/80 level. The sluggish trade in grains since 1980/81 reflects continued world debt problems, lower economic growth rates, and the effect of the strong U.S. dollar, which has held down U.S. exports. Major exporters utilize government assisted export programs to dispose of surplus stocks, and maintain or increase world market shares. For example, the European Community uses export restitutions to sell wheat in certain third country markets and the United States has utilized blended credit programs to increase exports.

- <u>U.S. grain production and trade peaked during the period but then fell sharply.</u>

U.S. grain production peaked in 1982/83 before falling more than 30 percent in 1983/84. Drought conditions and acreage reduction programs were responsible for this steep decline. U.S. grain exports peaked in 1980/81 and fell the next 2 years owing to the economic conditions cited earlier as well as increased production and exports by major competitors.

- <u>The U.S. share of increasing world wheat trade has declined.</u>

The United States is the leading wheat exporter in the world. In 1983, the United States exported 38.5 million metric tons of wheat with a value of $6.2 billion. While global wheat exports increased about 16 percent from 1979/80 to 1983/84, U.S. exports in 1983/84 were less than 5 percent above the 1979/80 level. The share of the world market held by the United States rose from 43 percent in 1979/80 to 48 percent in 1981/82 but then fell to 38 percent in 1983/84. The decline in the U.S. share has been associated with plentiful world supplies, rising trade shares by Argentina, Australia, and Canada, and the emergence of the EC as a net exporter of wheat.

- <u>U.S. coarse grain exports and share of world trade have declined.</u>

U.S. coarse grain exports declined more than 20 percent and the U.S. share of this market dropped from 73 percent to 62 percent from 1979/80 to 1983/84. Sluggish demand, increased exports by the major competitors, and the strength of the U.S. dollar contributed to this decline.

o <u>World corn trade and U.S. corn exports have declined sharply.</u>

The United States generally accounts for about three-fourths of world corn exports. In 1983, U.S. corn exports totaled 47.6 million metric tons, valued at $6.5 billion. The sharp decline in world trade since 1981 has been borne by the United States. The EC's continuing decline as a corn importer and the sharp drop in U.S. exports to the USSR were largely responsible for the decline.

o <u>World rice production has continued its upward trend, but world rice trade and U.S. exports have been stagnant.</u>

Although rice is an important food staple and rice ranks third behind wheat and corn in world grain production, world trade in rice is relatively small, equivalent to less than 5 percent of production. World rice production increased over the period and reached a record level in 1983/84, but world rice trade did not increase. Thailand and the United States accounted for over one-half of the world's exports. U.S. rice exports rose from $850 million in 1979 to $1.5 billion in 1981 but then fell the next 2 years to $926 million in 1983.

<u>Oilseeds and products</u>

o <u>World and U.S. production of oilseeds declined during 1979-83.</u>

World production of oilseeds rose from 170 million metric tons in 1979/80 to a record 178 million metric tons in 1982/83, and then fell to 166 million metric tons in 1983/84. Soybeans, soybean meal, and soybean oil are the dominant oilseed products produced and traded internationally, with the United States as the leading producing and exporting country, followed by Brazil and Argentina. World production of soybeans fell during the 5 years, while production of rapeseed rose.

U.S. production of soybeans fell from 1979/80 to 1983/84. This decline, coupled with minor increases in production by Argentina and China, resulted in a decrease in the U.S. share of world production from 66 to 54 percent during these 5 years, while the respective share for U.S. soybean meal production fell from 43 to 36 percent. Adverse weather, the domestic PIK reduction program, and reduced U.S. exports played a role in the decline in U.S. output.

- World production of oilseed meal and vegetable oils increased.

Oilseed meal production in the world rose during the 5 years by about 3 percent, with most of the increase coming from expanded output of rapeseed meal and of sunflowerseed meal. World production of vegetable oils increased by 12 percent during 1979/80 to 1983/84, owing chiefly to expanded rapeseed oil and palm oil output, which rose, respectively, by 52 and 30 percent during the period.

- Export markets are important outlets for world and U.S. oilseeds and oilseed products.

During the 5 years 1979/80 to 1983/84, about one-fifth of the world production of oilseeds was traded internationally as was about one-third of the production of oilseed meals and of vegetable oils. The United States, Brazil, Argentina, Malaysia, the Philippines, Canada, and the European Community (EC-10) dominate world exports of oilseeds and products. The leading markets for oilseeds and oilseed meal include mainly the EC-10, Japan, Eastern Europe, the Soviet Union, Spain, and Taiwan; leading vegetable oil markets are India, Pakistan, the Soviet Union, and a host of other developing countries.

Foreign markets have been important outlets for U.S. oilseeds, oilseed meals, and vegetable oils with about 40 percent of U.S. output of oilseeds, 25 percent of that of oilseed meals, and 25 percent of that of fats and oils being sold in foreign markets during 1979/80 to 1983/84. The value of U.S. exports of oilseeds and products increased from $9.7 billion in 1979 to a peak of $10.2 billion, in 1981 and thereafter declining to $9.3 billion, in 1983. Oilseeds (chiefly soybeans) accounted for about two-thirds of these U.S. exports, and oilseed meals and fats and oils each about one-sixth.

The decline in U.S. exports of soybeans and oilseed products has been attributed by several studies to a number of economic factors with the dominant ones cited being the effects of the real appreciation of the dollar on key U.S. foreign customers and competition from other exporting/producing countries. Domestic industry groups have also complained of unfair trade practices by foreign exporters or of unfair foreign import constraints. The world's major oilseed producers, particularly Argentina, Brazil, and Malaysia, utilize differential export taxes to encourage production and export of value-added oilseed products over the primary product.

The EC-10 remained the leading U.S. market for oilseeds and products, purchasing about 40 percent of the value of U.S. exports of oilseeds and products during the 5 years, while Japan was second with a 13-percent share. The EC has, however, curtailed its purchases of U.S. products, and growth in U.S. oilseed and product exports occurred chiefly in six developing countries: Mexico, Taiwan, South Korea, Indonesia, Malaysia, and Venezuela.

Meat

o <u>International trade in meat is generally influenced by trade restrictions (such as quotas, variable levies, tariffs), health and sanitary measures, state trading, and government assisted export sales.</u>

For a number of years the EC, certain Non-Market Economies (NME's), Brazil, Australia, and New Zealand have accounted for about 70 percent of world exports of meat. The United States, the Soviet Union, the EC, and Japan have been the major importers of meat, taking about 75 percent of the total.

U.S. exports of meat historically have been small, equivalent to about 2 percent of production in recent years. Exports increased from $1.0 billion in 1979 to $1.3 billion in 1981 and then declined to $1.1 billion in 1983. However, the United States has been among the world's largest exporters of poultry meat and eggs. During 1979-83, U.S. exports of poultry meat averaged about $300 million annually, and were exceeded only by exports from the EC. The European Community's cotinued usage of export restitutions, and more recently those of Brazil, have eroded U.S. shares of the world poultry market. The EC and Brazil offer export restitutions to dispose of surplus domestic production on world markets.

U.S. exports of eggs increased from $51 million in 1979 to $110 million in 1981 before declining sharply to $37 million in 1983 because of decreased domestic production and competition in Middle East markets. During 1979-83, the United States had a 23 percent share of the world market for eggs.

Although U.S. imports of meat, which consist largely of fresh, chilled, or frozen beef from Australia and New Zealand and pork from the EC, and the NME's, and increasingly fresh, chilled, or frozen pork from Canada, have been larger than exports, imports have been equivalent to only about 5 percent of consumption in recent years. During 1979-83, imports declined irregularly from $2.5 billion to $2.0 billion. U.S. imports of certain meats, mainly fresh, chilled, or frozen beef and veal are subject to quotas under the Meat Import Act of 1980 and to voluntary restraint agreements negotiated under the Agricultural Act of 1956.

Dairy products

o <u>International trade in dairy products is influenced by governments through direct controls such as quotas, import prohibitions, and health and sanitary measures and by interference with market prices such as government assisted export sales, minimum price levels, and import tariffs</u>.

For many years the EC and New Zealand have been the world's leading exporters of dairy products. The world's leading importers of dairy products have been the U.S.S.R., the EC, the United States, Japan, Mexico, and South America.

The EC's share of world exports of butter and cheese declined from 60 percent of the total in 1980 to 40 percent in 1983. During 1980, the EC suspended export refunds to certain Eastern European countries, the U.S.S.R., and Mongolia. However, the EC export refunds were reintroduced in 1984, and EC exports increased.

U.S. exports of dairy products historically have been small ($363 million in 1983) although shipments (mostly donations or cost assisted sales) of nonfat dry milk have been noteable. Although U.S. imports of dairy products (mostly cheese and casein) were valued higher than exports during 1979-84 ($606 million in 1983), the value of imports has been equivalent to only 1 percent or 2 percent of the value of production. U.S. imports are subject to quotas under section 22 of the Agricultural Adjustment Act.

Fruit, vegetables, and nuts

- World production and trade of fruit, vegetable, and nuts have shifted.

In recent years, the overall world situation for fruit, vegetables, and nuts has changed from a pattern where a small number of developed nations dominated world production and exports of such goods to a pattern where the vast majority of countries, especially smaller, lesser-developed nations, are no longer importing most of their products and are actively promoting increased domestic production and export potential. Historic, large-volume suppliers, such as the United States, Spain, and certain EC member countries, are facing increasing competition from numerous European and South American countries.

Since 1979, estimated world exports of fruit, vegetables, and nuts have trended upward, with Spain and the EC, two of the three major historical suppliers, showing declines in exports while shipments from the United States, the other major supplier, increased significantly. Exports from a number of other countries, including Thailand, Turkey, Brazil, the Philippines, Israel, and Argentina, rose during this period.

- U.S. exports of fruits, vegetables, and nuts peaked in 1981 while imports rose steadily during 1979-83.

Overall, U.S. exports of fruit, vegetables, and nuts increased from $2.1 billion in 1979 to a peak of $3.3 billion in 1981 before declining to $2.5 billion in 1983. Shipments of fruit accounted for two-thirds of the rise and exports of vegetables most of the remainder. The decline in exports since 1981 is due, in part, to real appreciation of the dollar against foreign currencies, coupled with tighter monetary policies and a depressed world economy.

U.S. exports of fruit, vegetables, and nuts consisted principally of fresh fruit and vegetables to Canada, as well as fresh and processed fruit and vegetables to Japan. U.S. imports of fruit and vegetables, including fresh fruit and vegetables from Central and South America, prepared or preserved fruit from Spain and the Philippines, and the bulk of the fruit juice from Brazil, rose steadily from 1979 to 1983, with a continued steady increase anticipated through 1984.

Sugar

- World production and prices for sugar are cyclical with shortages and high prices for 1 or 2 years followed by several years of surpluses and low prices. The latest price peak was in 1980-81.

World sugar production increased from 84 million tons in 1979 to 101 million tons in 1982, before declining to 95 million tons in 1983. During the same period, consumption increased slowly and regularly from 90 million to 96 million tons.

World trade in sugar averaged 28 million tons annually during 1979-83; however, trade is shifting from raw sugar to refined sugar. During 1979-83, trade in refined sugar increased 50 percent in volume terms to account for about a third of total sugar trade.

- The U.S. market for sugar is insulated from the world market by a system of price-supports for domestic sugar and import quotas.

Domestic production of sugar remained stable during 1979-83 while imports peaked in 1981 at 4.6 million metric tons, valued at $2.1 billion, before dropping to 2.4 million metric tons, valued at $800 million, in 1982 following the imposition of import quotas.

Consumption of sugar in the United States declined 20 percent from 1977 to 1983 as high fructose corn sirup (HFCS) captured an increasing share (25 percent) of the U.S. sweetener market. HFCS production has been encouraged by the U.S. price-support program for sugar and the quota system to protect it from imports.

The United States is not usually a significant exporter of sugar. However, the U.S. system of drawback (refund) of import duties and the exemption (implemented in mid-1983) from import quotas for sugar to be reexported resulted in U.S. exports of 190,000 metric tons of sugar in 1983.

INTRODUCTION

Exports have become increasingly important to U.S. agriculture in the last two decades. In 1983, exports of agricultural products were equivalent to 20.8 percent of total U.S. cash receipts from farming compared with 10.6 percent during 1966-70. 1/ For certain individual commodity groups, exports are even more important. In 1983, exports were equivalent to 58 percent of farm marketings of wheat, 85 percent for rice, 40 percent for feed grains, 52 percent for soybeans, 34 percent for cotton, and 41 percent for tobacco (table 1). U.S. exports of agricultural products peaked in 1981 at $43.4 billion after a lengthy period of rapid growth (tables 2 and 3). The reduced exports of agricultural products since 1981 coincide with record U.S. trade deficits (table 4).

The decline in U.S. exports of agricultural products has been variously attributed to a variety of reasons, including, among others, the worldwide economic recession, the strong U.S. dollar, foreign debt problems in many developing countries, and subsidized competitor exports. It is in this setting and in anticipation of a comprehensive farm bill (current U.S. agricultural legislation expires after the 1985 crop) that the U.S. Senate Committee on Finance requested the U.S. International Trade Commission to

Table 1.--U.S. agricultural exports: Share of total cash receipts from farm marketings, by commodities, 1966-83 1/

(In percent)

Period	Total	Live-stock	Wheat	Rice	Feed grains 2/	Soy-beans 3/	Cotton	Tobacco
1966-70	10.6	2.3	45.3	54.5	20.2	39.9	24.3	32.4
1971-75	12.8	2.9	49.5	54.0	26.8	44.5	30.6	33.2
1976-80	21.0	4.3	55.6	61.3	41.0	48.1	39.3	38.6
1980	23.5	4.5	56.7	68.6	46.8	49.2	51.2	39.9
1981	24.3	4.9	66.2	70.7	49.1	53.8	39.7	35.9
1982	20.5	4.5	55.5	52.6	31.7	51.3	31.6	37.0
1983	20.8	4.4	58.2	84.8	39.8	52.4	33.9	41.3

1/ Value of U.S. agricultural exports f.o.b. adjusted 20 percent for transportation charges; Includes Government (Commodity Credit Corporation) payments.

2/ Includes hay and fodder.

3/ Exports include soybeans and soybean products.

Source: U.S. Department of Agriculture.

1/ U.S. Department of Agriculture, International Economics Division, Economic Research Service, Impacts of Policy on U.S. Agricultural Trade, ERS Staff Report No. AGES840802, December 1984, p. 2.

Table 2.--U.S. agricultural exports, by commodities, 1979-84

Item	1979	1980	1981	1982	1983	1984
	Value (billion dollars)					
Grains and preparations	14.4	18.0	19.4	15.6	16.2	17.1
Wheat	5.3	6.4	7.8	6.7	6.2	6.4
Wheat flour	.2	.2	.2	.2	.3	.2
Feed grains	7.7	9.8	9.4	6.4	7.2	8.2
Rice	.9	1.3	1.5	1.0	.9	.8
Oilseeds and products	8.9	9.4	9.6	9.1	8.7	8.3
Soybeans	5.7	5.9	6.2	6.2	5.9	5.4
Soybean cake and meal	1.4	1.7	1.6	1.4	1.5	1.0
Soybean oil	.8	.7	.5	.5	.4	.7
Animals and products	3.8	3.8	4.2	3.9	3.8	4.3
Hides and skins	1.3	1.0	1.0	1.0	1.0	1.4
Red meats, including offals	.9	.9	1.0	1.0	.9	.9
Animal fats	.7	.8	.8	.7	.6	.7
Poultry products	.4	.6	.8	.5	.4	.4
Dairy products	.1	.2	.3	.3	.4	.4
Fruits, vegetables, and nuts	2.5	3.3	3.6	2.9	2.6	2.6
Cotton, including linters	2.2	2.9	2.3	2.0	1.8	2.5
Tobacco	1.2	1.3	1.5	1.5	1.5	1.5
Feeds and fodders	.8	1.1	1.0	1.0	1.2	1.1
All other	.9	1.4	1.7	.6	.3	.4
Total	34.7	41.2	43.3	36.6	36.1	37.8
	Quantity (million metric tons) 1/					
Wheat	33.4	35.7	43.9	40.8	38.4	42.2
Wheat flour	1.0	.8	.9	.8	1.7	.9
Feed grains	65.8	72.6	64.9	56.2	54.3	58.1
Rice	2.3	3.1	3.2	2.6	2.4	2.2
Feeds and fodders	4.9	6.4	5.9	6.1	7.3	6.8
Soybeans	20.9	21.8	21.8	25.5	22.7	19.5
Soybean cake and meal	5.1	7.1	6.3	6.2	6.5	4.5
Other oilcake and meal	.4	.4	.4	.2	.2	.2
Soybean oil	1.1	1.1	.8	.9	.8	1.0
Other vegetable oils	.5	.7	.8	.7	.7	.6
Sunflowerseed	1.3	1.5	1.7	1.5	.8	1.5
Cotton, including linters	1.6	1.9	1.3	1.4	1.3	1.5
Tobacco	.3	.3	.3	.3	.2	.2
Fruits, vegetables, and nuts		4.1	4.4	4.0	3.7	3.4
Beef, pork, and variety meats	.4	.4	.4	.4	.4	.4
Poultry meat	.2	.3	.4	.3	.2	.2
Animal fats	1.3	1.6	1.6	1.5	1.4	1.3
All other	5.8	3.1	3.4	2.8	1.1	2.4
Total	147.3	162.9	162.4	152.2	144.1	146.9

1/ Excludes animal numbers and some commodities reported in cases, pieces, dozens, liquid measures, and so forth.

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

Table 3.--U.S. exports of agricultural products, by major markets, 1980-84

(In millions of dollars)

Markets	1980	1981	1982	1983	1984
Japan	6,111	6,562	5,547	6,241	6,756
European Community	9,236	9,059	8,273	7,300	6,450
U.S.S.R	1,047	1,665	1,850	1,457	2,817
Mexico	2,468	2,432	1,156	1,942	2,015
Canada	1,852	1,989	1,805	1,830	1,929
Republic of Korea	1,797	2,008	1,581	1,840	1,650
Taiwan	1,095	1,145	1,155	1,308	1,455
Spain	1,129	1,267	1,458	1,138	1,014
Egypt	770	967	800	943	877
Venezuela	701	893	671	665	775
All other	15,027	15,350	12,327	11,442	12,074
Total	41,233	43,337	36,623	36,106	37,812

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

Table 4.--Agricultural and nonagricultural products: U.S. exports, imports, and trade balances, 1979-84

(In billion of dollars)

Year	Agricultural	Nonagricultural	Total 1/
U.S. exports:			
1979	34.7	143.8	178.6
1980	41.2	175.4	216.6
1981	43.3	185.6	229.0
1982	36.6	170.5	207.2
1983	36.1	159.9	196.0
1984	37.8	174.2	212.1
U.S. imports:			
1979	16.7	189.1	205.9
1980	17.4	226.6	244.0
1981	16.8	242.2	259.0
1982	15.4	227.0	242.3
1983	16.6	240.1	256.7
1984	19.3	303.7	323.0
Trade balance:			
1979	18.0	-45.3	-27.3
1980	23.9	-51.3	-27.4
1981	26.6	-56.6	-30.1
1982	21.2	-56.4	-35.2
1983	19.5	-80.2	-60.7
1984	18.5	-129.4	-110.9

1/ Because of rounding, figures may not add to totals shown.

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

conduct a study on world trade flows in major agricultural products to determine trade patterns, what shifts have taken place, and the reasons for the trade patterns and shifts. The Committee requested that the Commission's report include information with respect to those factors affecting overall agricultural trade as well as the position of the United States in world agricultural trade. The Committee further requested that the study focus on factors of competition and that it should examine the impact of shifts in world agricultural trade on U.S. trade in broad commodity groups.

The scope of the requested study is extremely wide. The broad product groupings specified in the request from the Senate Finance Committee were utilized, and no attempt was made to study trade flows in individual commodities. U.S. Department of Agriculture definitions were used for the groupings. For world trade, data used were from the United Nations, unless otherwise indicated. In addition, as cited throughout the report, the Commission staff utilized information from the plethora of Government and private studies on related issues.

MAJOR FACTORS AFFECTING AGRICULTURAL TRADE

World Economic Growth

During the early 1980's, global economic growth slowed dramatically from that of the 1970's. The slowdown in global growth was a result of the economic policies, particularly monetary policies, instituted by the developed countries to control inflation after the second round of oil price increases in 1979. These policies slowed economic activity in the developed countries, reducing the demand for imported products from developing countries. The developing countries, in turn, imported fewer goods from other countries.

In contrast, many of the developed and developing countries had followed expansionary monetary policies after the first round of oil price increases in 1974 to accomodate the higher oil prices. These expansionary policies are believed to have been a major contributor to the high inflation rates in most countries in the late 1970's. These policies were also a major factor behind the economic growth in the developed and developing countries during the 1970's, which increased international trade in agricultural products.

During 1967-79, economic growth (real output) by the developed countries increased at an annual rate of 3.7 percent. However, growth during 1980-82 was severely curtailed. Real output in 1980 increased by only 1.3 percent, and that in 1981, by 1.6 percent, but output in 1982 actually declined from the level of a year earlier. Output in the developed countries increased in 1983 as they pulled out of the recession, lead by the United States and Canada, and in 1984, output showed a healthy gain of 3.6 percent, although this was still below the rate enjoyed before the recession.

The developing countries faced even greater setbacks in real output during 1980-82. Real output fell from an average annual increase of 5.7 percent in 1967-79 to an increase of 3.3 percent in 1980, 1.2 percent in 1981, and 0.1 percent in 1982. The growth in real output in the developing countries was affected by reduced import demand by the developed countries, lower commodity prices, and accumulating debt and repayment problems. Growth in these countries resumed in 1983 and 1984 but at a slower pace than that experienced during the period 1967-79.

The debt and repayment problems of the developing countries affected demand in those countries for imports and, in particular, agricultural imports from the United States and other countries during the early 1980's. In 1984, the developing countries owed over $800 billion, with about 12 percent of the total being short-term debt. 1/ The majority of the debt ($710.9 billion in 1984) was accumulated by the non-oil developing countries (table 5). In 1979, all developing countries had outstanding external debt of approximately $472 billion. The non-oil developing countries accounted for $334 billion of the total in 1979.

Table 5.--External debt outstanding, of developing countries, 1979-84

(In billions of U.S. dollars)

Item	1979	1980	1981	1982	1983	1984
All developing countries	472.0	559.9	646.5	724.8	767.6	812.4
Short-term	75.8	106.5	128.1	148.2	126.2	97.6
Long term	396.3	453.4	518.4	576.6	641.4	714.8
Non-oil developing countries	395.3	475.2	559.6	633.3	668.6	710.9
Short-term	59.1	84.5	103.8	125.1	102.2	88.2
Long term	336.2	390.8	455.8	508.2	566.4	622.8

Source: International Monetary Funds, World Economic Outlook 1984.

The outstanding external debt of the developing countries is also concentrated by geographic location (table 6). Debt in the Western Hemisphere countries has been increasing faster than that in other geographic regions. Western Hemisphere countries accounted for 45 percent of the total, and Asian countries accounted for over 20 percent, in 1984. From 1979 to 1984, debt in the non-oil developing Western Hemisphere countries increased by 97 percent, and that for all other non-oil developing countries increased by 70 percent. The Western Hemisphere countries traditionally have been a major market for agricultural products.

1/ International Monetary Fund, World Economic Outlook, 1984.

Table 6.--External debt outstanding, of non-oil developing countries, by selected areas, 1979-84

(In billions of U.S. dollars)

Areas	1979	1980	1981	1982	1983	1984
Africa 1/	45.3	50.9	55.5	62.5	66.3	70.7
Asia	92.8	114.6	131.2	152.6	165.0	179.3
Europe	55.0	67.2	71.1	72.3	74.8	76.6
Middle East	32.0	36.3	40.6	45.6	50.7	56.2
Western Hemisphere	157.8	192.6	246.0	283.1	294.4	310.5

1/ Excluding the Republic of South Africa.

Source: International Monetary Fund, World Economic Outlook 1984.

Among the developing countries that have large, external debt and those that are major markets for U.S. agricultural exports are Brazil, Mexico, Chile, Nigeria, and India. Major competitiors of the United States in the world agricultural export markets are Brazil and Argentina, and major suppliers of U.S. agricultural imports are Brazil and Mexico.

The increase in real output in the United States and Canada in 1983 and 1984 is expected to contribute to the recovery of other developed countries in 1985. Increased demand by the developed countries for imports will be a major factor in the economic growth of the developing countries in the post-recessionary period and will aid reducing the debt and repayment problems of the developing countries.

External Debt

The accumulating debt and repayment problems that beset a large number of developing countries at the start of the 1980's contributed to a reduction in the demand for U.S. agricultural exports. At the same time that many indebted countries were beginning to experience difficulties meeting their debt-servicing obligations, the world recession of 1980-82 brought about a decline in their export earnings and produced high real interest rates. In order to generate foreign exchange in a short period of time, indebted countries were forced to sharply curtail their imports. Since many of the more severely affected debtor countries were also major purchasers of U.S. agricultural products, U.S. farm exports to those countries were particularly affected.

The debt crisis was the result of a number of factors. 1/ Principal among these was the shift in the composition of external financing to middle-income developing countries during the decade of the 1970's. Lending to developing countries by private banks, which was virtually nonexistent prior to the 1970's, grew rapidly. As a result of an increase in lending from $4 billion in 1970 to $36 billion in 1980, the total outstanding debt to private creditors (which stood at $32 billion in 1970) rose to $284 billion in 1980.

This change in external financing increased the debt-servicing burden of middle-income developing countries for three reasons. First, the majority of this new debt was obtained at variable interest rates, usually set a few percentage points above the London Interbank Rate (LIBOR). Borrowing countries were not only paying higher interest rates--rates in excess of those provided on a concessional basis--but their debt-servicing obligations were also more sensitive to changes in nominal rates of interest. For instance, the World Bank calculated that at the end of 1979, every 1 percentage point increase in the LIBOR rate added extra yearly interest charges totaling 1 percent of the outstanding variable interest debt.

Second, the increase in commercial borrowing changed the average maturity of medium- and long-term debt from 20 years in 1970 to 12.7 years in 1980, because the maturity of private loans is usually 9 years, compared to 24 years for loans from official sources. Both effects (higher interest rates and shorter maturities) meant that even though total borrowing increased markedly during the 1970's, fewer funds were actually available to the countries after payments for amortization and interest. By 1980, only 22 percent of borrowed funds were available for purchasing imports and adding to reserves after amortization and interest payments.

Third, virtually all of this commercial debt was concentrated among a few middle-income countries. According to World Bank estimates, eight countries (Mexico, Brazil, Argentina, Venezuela, Algeria, Spain, Yugoslavia, and the Republic of Korea) accounted for 60 percent of the total debt outstanding in 1979.

When the economic environment changed during the late 1970's, the stage had been set for a liquidity crisis. First came the oil price shock of 1979-80 and the industrialized countries' response to it. Fearful of generating another round of inflation (as they had done after the first oil price increase), industrialized countries followed less accomodating monetary policies. The immediate effects were worldwide recession, inflation, and high, positive real interest rates. Lower growth rates in the industrialized countries reduced the demand for debtor country exports and lowered their export prices.

1/ Useful discussions of the origins of the debt problem can be found in World Bank, World Development Report 1981, pp. 49-63, and World Bank, World Development Report 1984, pp. 11-33.

Export prices for food rose by 7.8 percent annually from 1973 to 1980, according to the World Bank. But in 1981, they fell by 16.1 percent, and in 1982, they fell by an additional 14.1 percent. In contrast to the effect of the ensuing inflation after the first oil price shock, with variable interest rates, borrowers were unable to benefit from an erosion in the real value of their debt. Instead, as the nominal rate moved upward to account for inflation, interest charges also increased.

Although developing countries had begun to experience problems from the beginning of the recession, rising external deficits did not precipitate a liquidity crisis until August 1982, when Mexico, followed shortly by Argentina and Brazil, threatened to default on its debt-servicing obligations. For the three countries, before rescheduling, the debt-service payments had exceeded 100 percent of exports of goods and services. 1/ In other words, without new lending, even a complete curtailment of all imports by these countries would have been inadequate for them to continue to service their debt. As private lenders lost confidence in light of the amount of debt at risk, other developing countries began to experience liquidity problems. Even those countries that ultimately did not have to reschedule their debt found it difficult to service it as new lending to developing countries dwindled. Consequently, by the end of 1983, there were 36 reschedulings.

The short-run effect of the debt crisis for U.S. agricultural exports is clear. Because of the reluctance of private lenders to provide financing, the liquidity crisis affected the ability of all developing countries to import. If the flow of external financing had not fallen off owing to the crisis, developing countries would have continued to meet their debt obligations, and the effect on the ability to import would have been significantly smaller. Instead, the majority of developing countries experienced a temporary loss of liquidity. For those developing countries most heavily in debt, largely major importers of U.S. agricultural products such as Mexico and Brazil, the effect of the crisis for U.S. agricultural exports was more severe. The strong measures that they adopted to generate foreign exchange added to the decline in the demand for U.S. agricultural products. Partly as conditions for the rescheduling of their debt, Mexico, Argentina, and Brazil reduced Government spending, constrained the expansion of domestic credit, and devalued their currencies. The contractionary effects of these policies on domestic income and expenditure, in turn, led to a dramatic improvement in their trade balances. As table 7 illustrates, in each country, real income declined, and the trade balance was reversed from a deficit to a surplus. This substantial turnabout was brought about by a 68-percent reduction of imports by Mexico (from $24 billion in 1981 to $7.7 billion in 1983), a 51-percent reduction by Argentina, and a 30-percent reduction by Brazil.

1/ Council of Economic Advisors, Economic Report of the President, February 1984. This work provides an excellent review of the effects of the debt crisis for U.S. trade in general.

Table 7.--Exports, imports, and gross domestic product for Mexico, Brazil, and Argentina, 1980-83

(Millions of dollars)

Item	1980	1981	1982	1983
Mexico:				
Exports--million dollars--:	16,066	19,938	22,081	22,228
Imports----------------do--:	18,896	24,037	14,435	7,721
Trade balance---------do--:	- 2,830	- 4,099	7,646	14,507
GDP 1/-----billion pesos--:	4,277	4,617	4,592	4,378
Brazil:				
Exports--million dollars--:	20,132	23,276	20,173	21,898
Imports----------------do--:	22,955	22,091	19,395	15,429
Trade balance---------do--:	- 2,823	1,185	778	6,469
GDP 1/-billion cruzerios--:	13,164	12,959	13,079	12,666
Argentina:				
Exports--million dollars--:	8,021	9,145	7,623	7,835
Imports----------------do--:	9,394	8,431	4,859	4,119
Trade balance---------do--:	- 1,373	712	2,764	3,716
GDP 1/-----billion pesos--:	28,265	26,483	25,209	25,973

1/ 1980 prices.

Source: International Monetary Fund, International Financial Statistics, Mar. 1985.

Since Mexico and Brazil are also major consumers of U.S. farm products, U.S. agricultural exports were particularly hurt by these policies. From 1980 to 1982, Mexico's purchases of U.S. agricultural commodities declined by 54 percent (from $2.5 billion to $1.2 billion), and from 1981 to 1983, Brazil's imports of U.S. agricultural products fell by 33 percent (from $710 million to $479 million). Although Argentina is not a major consumer of U.S. agricultural products, its imports fell by 65.5 percent from 1980 to 1982. Moreover, from 1981 to 1982, the percentage decline in the value of agricultural exports to the three most heavily indebted countries was greater than the percentage decline in the value of total exports of U.S. agricultural products. The value of exports to Mexico, Brazil, and Argentina fell by 47 percent, whereas the value of total U.S. agricultural exports fell by 15.5 percent.

Over time, a large part of the loss in U.S. exports to developing countries caused by the liquidity crisis will slowly be restored. Even in Mexico, imports of U.S. agricultural products had by 1984 risen to 81 percent of the 1980 level. However, whether or not the demand for U.S. agricultural exports in the more seriously affected countries grows at earlier rates will depend on two sets of factors.

The first is the type of domestic policies that debtor countries adopt to bring about structural adjustment to correct their external imbalance. To continue servicing the debt and to increase long-term growth rates, they must raise real output relative to expenditures and exports relative to imports. To date, in one group of countries (mainly the Latin American countries), the short-run adjustment or improvement in their current accounts has been brought about by a reduction in real output and expenditures. In many cases, the reduction in real spending has been at the expense of long-term investment. If this persists, this group of developing countries will experience slow economic growth and a slow increase in the demand for U.S. agricultural products. It will, therefore, probably be many years before the level and rate of growth of demand for U.S. agricultural products is restored to its precrisis level.

However, if developing countries are successful at transforming their production processes towards exports, then the level and growth in demand for U.S. agricultural products may be restored to its previous trend. Some of the most heavily indebted countries, such as Korea and Turkey, have been successful at expanding output by encouraging the production of exports. This has, in turn, permitted them to increase their real imports during the 1980's. These countries have had the same degree of indebtedness as the Latin American countries, but what distinquishes them from the Latin American countries is the outward-orientation of their economies. For instance, exports of goods, services, and private transfers represent 44 percent of gross national product (GNP) in the Republic of Korea (Korea), whereas they represent 17 percent in Mexico, 16 percent in Argentina, and 8 percent in Brazil. 1/

The second key factor will be the ability of developing countries to obtain additional external financing. By adding to savings and offsetting shortages of foreign exchange, external financing will facilitate the structural adjustment that is required to bring about the transformation of their production processes. Since structural adjustments take time, the alternative without borrowing would be a prolonged period of reduced expenditures or decline in standards of living, which would have an adverse impact on U.S. agricultural exports far into the future.

Exchange Rates

It is generally believed that the recent appreciation of the dollar in foreign-exchange markets is an important cause of the decline in U.S. agricultural exports. An increase in the value of the dollar relative to a foreign currency influences our competitive position abroad by raising the price of our commodities in terms of the foreign currency. Table 8 presents the nominal exchange rates (expressed in dollars per unit of foreign currency and indexed in 1979) for 27 major agricultural trading partners of the United States. A decrease in the index represents an appreciation of the dollar compared with its 1979 value. As illustrated in table 8 since 1979, the nominal value of the dollar has risen relative to the currencies of those countries that float against the dollar.

1/ Council of Economic Advisors, Economic Report of the President, Feb. 1984.

Table 8.--Nominal exchange rates relative to the U.S. dollar, by areas and by countries, 1979-83 and specified quarters, January 1979-June 1984

(1979=100)

Area and country	Unit of currency	1979	1980	1981	1982	1983
Western Hemisphere:						
Canada 1/	Dollar	100.0	100.2	97.7	95.0	95.0
Mexico 1/	Peso	100.0	99.4	93.0	40.4	19.0
Argentina 2/	Peso	100.0	71.7	29.9	5.1	1.2
Brazil 3/	Cruzeiro	100.0	51.1	28.9	15.0	4.7
Colombia 3/	Peso	100.0	90.0	78.1	66.4	54.0
Ecuador 3/	Sucre	100.0	100.0	100.0	83.3	56.7
Honduras 4/	Lempino	100.0	100.0	100.0	100.0	100.0
Venezuela 5/	Bolivare	100.0	100.0	100.0	100.0	99.9
European Community:						
Belgium 5/	Franc	100.0	100.3	79.0	64.2	57.3
Denmark 3/	Knoner	100.0	93.3	73.9	63.1	57.5
France 1/	Franc	100.0	100.7	78.3	64.7	55.8
West Germany 1/	Mark	100.0	100.8	81.1	75.5	71.8
Italy 1/	Lira	100.0	97.0	73.1	61.4	54.7
Netherlands 5/	Giulder	100.0	100.9	80.4	75.1	70.3
United Kingdom 1/	Pound	100.0	109.6	95.6	82.5	71.5
Oceania and Far East:						
Japan 5/	Yen	100.0	96.6	99.4	88.0	92.3
Australia 3/	Dollar	100.0	101.9	102.8	91.0	80.7
China 5/	Yuan	100.0	103.8	91.2	82.3	78.6
New Zealand 3/	Dollar	100.0	95.2	85.1	73.5	65.4
Philippines 3/	Peso	100.0	98.2	93.4	86.4	66.4
Repubic of Korea 5/	Won	100.0	79.7	71.1	66.2	62.4
Other:						
Egypt 5/	Pound	100.0	100.0	100.0	100.0	100.0
India 5/	Rupee	100.0	103.3	93.8	85.9	80.5
Portugal 5/	Escudo	100.0	97.7	79.5	61.6	44.2
Saudi Arabia 5/	Riyal	100.0	101.0	99.4	98.1	97.3
Spain 5/	Peseta	100.0	93.6	72.7	61.1	46.8
Turkey 6/	Lira	100.0	40.9	27.9	19.1	13.8
		Jan.-Mar. 1979	July-Sept. 1983	Oct.-Dec. 1983	Jan.-Mar. 1984	Apr.-June 1984
Western Hemisphere:						
Canada 1/	Dollar	100.0	96.2	95.8	94.5	91.8
Mexico 1/	Peso	100.0	18.0	16.5	15.2	14.1
Argentina 2/	Peso	100.0	1.0	.6	.4	.3
Brazil 3/	Cruzeiro	100.0	3.4	2.5	1.9	1.4
Colombia 3/	Peso	100.0	51.3	48.2	45.3	42.5
Ecuador 3/	Sucre	100.0	52.9	48.2	44.3	41.0
Honduras 4/	Lempino	100.0	100.0	100.0	100.0	100.0
Venezuela 5/	Bolivare	100.0	99.8	99.8	77.1	57.2
European Community:						
Belgium 5/	Franc	100.0	55.2	53.7	53.0	53.0
Denmark 3/	Knoner	100.0	54.2	53.3	52.4	51.8
France 1/	Franc	100.0	53.6	52.3	51.4	51.2
West Germany 1/	Mark	100.0	70.2	69.3	68.6	68.4
Italy 1/	Lira	100.0	53.3	51.6	50.5	50.1
Netherlands 5/	Giulder	100.0	67.7	66.7	65.8	65.7
United Kingdom 1/	Pound	100.0	74.9	72.9	71.2	69.3
Oceania and Far East:						
Japan 5/	Yen	100.0	83.1	86.0	87.2	87.7
Australia 3/	Dollar	100.0	77.8	80.5	82.2	79.9
China 5/	Yuan	100.0	79.4	79.4	76.8	72.9
New Zealand 3/	Dollar	100.0	61.8	62.3	62.3	61.6
Philippines 3/	Peso	100.0	67.1	53.1	52.7	48.7
Repubic of Korea 5/	Won	100.0	61.6	60.9	60.8	60.6
Other:						
Egypt 5/	Pound	100.0	100.0	100.0	100.0	100.0
India 5/	Rupee	100.0	80.7	79.1	76.3	74.7
Portugal 5/	Escudo	100.0	38.9	37.1	35.6	34.3
Saudi Arabia 5/	Riyal	100.0	96.6	96.2	95.4	95.2
Spain 5/	Peseta	100.0	46.2	44.9	44.9	45.4
Turkey 6/	Lira	100.0	10.7	9.7	8.1	7.3

1/ Major import source and export market.
2/ Primary import source for hides and skins.
3/ Major import source.
4/ Primary import source for fruits.
5/ Major export market.
6/ Primary import source for tobacco.

Source: Compiled from official statistics of the International Monetary

Not only has the dollar risen in terms of nominal exchange rates, but its value has also risen when measured by real exchange rates (table 9) 1/. A look at real exchange rate changes provide a clearer picture of the effect of exchange-rate movements on the ability of U.S. farmers to compete abroad since nominal exchange rates often move to offset differences in relative inflation rates between countries. An appreciation of the U.S. dollar clearly hurts the competitive position of U.S. exporters. But, a higher rate of inflation in the foreign country relative to that in the United States raises prices in the foreign country and makes U.S. products relatively more inexpensive. Thus, if the appreciation of the dollar offsets the higher rate of inflation abroad, then there could be no net effect on the competitive position of U.S. agricultural exporters. Therefore, although the dollar has appreciated, differences in inflation rates at home and abroad seem to have offset some of the effects of this appreciation on the competitiveness of U.S. exports.

Indexes of real and nominal exchange rates are only suggestive of what may be happening to the ability of U.S. farmers to export. Although the appreciation of the dollar in real terms relative to most major currencies was accompanied by a decline in the value of U.S. agricultural exports (from $43.3 billion in 1981 to $36.6 billion in 1982), this does not mean that the actual change in exports was not significant as well, or that other factors may have had an equal or greater effect. In order to determine the net effect of changes in exchange rates, it is necessary to analyze the relationship between real-exchange-rate changes and exports. Such an analysis shows that the effects of a real appreciation of the dollar from 1981 to 1982 on U.S. agricultural exports have been significant on the competitiveness of U.S. agricultural products (see appendix C).

Impact of Nonmarket Economies

The nonmarket economy countries (NME's) have been a source of variability in world agricultural markets. Closed markets, nonconvertible currencies, and administered prices make it difficult to determine the value of NME's agricultural production relative to world market production.

The NME's have generally established policies that maintain food prices at or near the previous year's level. These administered prices for agricultural products have interrupted the normal price signals within the NME's. Thus, during periods of scarcity, prices in the NME's do not reflect such scarcity. Such policies have resulted in the NME's requiring large infusions of imports to meet internal demand. This has resulted in instability at times in the world agricultural export markets because of the inability of the marketing system to take account of marketing conditions within the NME's.

1/ Changes in real exchange rates are equal to changes in the nominal rates adjusted for differences in inflation rates.

Table 9.--Real exchange rates relative to the U.S. dollar, by areas and by countries, 1979-83 and specified quarters, January 1979-June 1984

(1979=100)

Area and country	1979	1980	1981	1982	1983
Western Hemisphere:					
Canada	100.0	99.7	98.2	99.1	101.3
Mexico	100.0	108.6	115.8	76.9	74.0
Argentina	100.0	110.3	88.4	52.6	56.3
Brazil	100.0	92.6	100.0	97.5	80.9
Colombia	100.0	98.1	96.8	101.2	98.9
Ecuador	100.0	94.1	94.5	90.1	69.6
Honduras	100.0	101.4	102.4	110.3	119.2
Venezuela	100.0	105.3	109.9	116.8	122.6
European Community:					
Belgium	100.0	93.0	72.6	62.3	57.7
Denmark	100.0	96.0	80.6	74.5	70.4
France	100.0	96.1	76.0	68.3	64.6
West Germany	100.0	95.1	75.6	72.9	69.5
Italy	100.0	102.1	82.3	77.0	74.9
Netherlands	100.0	95.7	76.3	74.4	70.0
United Kingdom	100.0	109.6	96.0	87.4	78.9
Oceania and Far East:					
Japan	100.0	99.8	95.4	84.2	85.2
Australia	100.0	101.9	102.2	96.5	91.3
China	100.0	97.6	83.1	75.1	74.0
New Zealand	100.0	102.6	98.2	95.6	88.5
Philippines	100.0	101.9	100.5	100.7	86.9
South Korea	100.0	97.1	95.6	91.2	85.1
Other:					
Egypt	100.0	106.7	105.6	113.1	129.5
India	100.0	109.0	101.8	93.5	93.3
Portugal	100.0	91.4	82.7	80.1	1/
Saudi Arabia	100.0	91.9	85.1	83.1	82.2
Spain	100.0	96.4	79.4	73.3	63.3
Turkey	100.0	74.5	64.0	54.0	50.2
	Jan.-Mar. 1979	July-Sept. 1983	Oct.-Dec. 1983	Jan.-Mar. 1984	Apr.-June 1984
Western Hemisphere:					
Canada	100.0	102.3	101.8	100.8	98.4
Mexico	100.0	75.8	76.7	83.3	89.7
Argentina	100.0	67.3	67.0	67.6	83.7
Brazil	100.0	76.9	78.4	77.7	75.5
Colombia	100.0	100.6	96.8	94.0	92.7
Ecuador	100.0	66.6	61.9	59.2	1/
Honduras	100.0	120.9	121.2	121.0	1/
Venezuela	100.0	123.3	125.3	98.9	1/
European Community:					
Belgium	100.0	54.8	54.6	54.2	54.7
Denmark	100.0	66.4	66.4	65.5	66.1
France	100.0	62.7	63.1	63.4	68.0
West Germany	100.0	66.2	65.4	64.7	64.5
Italy	100.0	76.1	73.7	73.6	1/
Netherlands	100.0	65.4	64.3	64.2	64.2
United Kingdom	100.0	85.6	84.0	82.6	81.7
Oceania and Far East:					
Japan	100.0	77.7	79.6	79.9	79.7
Australia	100.0	89.2	92.8	94.9	92.8
China	1/	1/	1/	1/	1/
New Zealand	100.0	86.7	87.5	87.2	1/
Philippines	100.0	90.4	84.8	97.6	1/
South Korea	100.0	88.9	87.5	86.8	86.2
Other:					
Egypt	100.0	128.0	128.5	131.0	1/
India	100.0	100.2	98.8	95.3	94.3
Portugal	100.0	60.6	61.0	1/	1/
Saudi Arabia	100.0	77.5	76.8	75.0	1/
Spain	100.0	64.2	64.4	66.3	1/
Turkey	100.0	48.1	47.8	45.1	1/

1/ Not available.

Source: Compiled from official statistics of the International Monetary Fund.

Several of the NME's have undertaken economic reforms that have placed their agriculture sectors on a more decentralized environment. These changes have affected agricultural production and have allowed prices to reflect relative scarcity.

The purchasing patterns of the NME's, including the Soviet Union, China, and Eastern European countries, have had a dampening effect on U.S. agricultural exports. Since 1979, these NME's have been purchasing fewer U.S. agricultural products. U.S. agricultural exports to the NME's fell by over one-half from 1979 to 1983, from $5.8 billion to $2.8 billion, but then recovered in 1984 to $4.2 billion, as shown in table 10. The reversal of the declining trend in U.S. exports to the NME's during 1979-83 came about when the Soviet Union sharply increased its purchases of U.S. grain in 1984. The Soviet Union reduced its purchases of U.S. farm products from $2.9 billion in 1979 to $1.5 billion in 1983, but expanded its purchases in 1984 to nearly the 1979 level. As a group, the NME's purchased 11 percent of the $38 billion of U.S. agricultural products exported in 1984, representing a decline from their 17-percent market share in 1979.

Table 10.--U.S. agricultural exports to nonmarket economy countries, 1979-84

(In million of dollars)

Country/region	U.S. exports					
	1979	1980	1981	1982	1983	1984
Soviet Union	2,855	1,047	1,665	1,850	1,457	2,817
China	990	2,210	1,956	1,498	544	615
Eastern European:						
Yugoslavia	284	278	138	182	268	189
Poland	651	571	593	180	200	186
Romania	337	463	368	134	118	157
East Germany	337	453	284	204	117	124
All other 1/	323	306	268	133	81	88
Subtotal	1,932	2,071	1,651	833	784	744
Total	5,777	5,328	5,272	4,181	2,785	4,176

1/--The "All other" Eastern European countries are Bulgaria, Czechoslovakia, and Hungary. Totals may differ because of rounding.

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

During 1979-84, all three principal NME regions purchased fewer U.S. agricultural products, although U.S. imports of agricultural products from the three remained close to the 1979 level of $0.5 billion (table 11). The largest market among the NME's, the Soviet Union, has purchased chiefly grain and feedstuffs from the United States. Following the U.S. embargo against it in 1980, the U.S.S.R. turned to other supplying countries, including Argentina, Brazil, Canada, and the EC. 1/ Annual Soviet demand for grain and feedstuff imports has fluctuated greatly, depending on their own grain harvests and upon decisions made on their meat and livestock output. Although the Soviet Union still relies on other grain exporters, it sharply increased its purchases from the United States in 1984 owing chiefly to disastrous Soviet crops and availability of a large volume of U.S. grain. 2/

Table 11.--U.S. agricultural imports from nonmarket economy countries, 1979-84

(In million of dollars)

Country/region	U.S. imports					
	1979	1980	1981	1982	1983	1984
Soviet Union	15	10	12	11	10	11
China	86	133	299	171	168	192
Eastern European:						
Yugoslavia	86	64	72	69	56	65
Poland	164	156	109	69	105	94
Romania	34	30	28	19	19	20
East Germany	2	3	1	2	2	1
All other 1/	67	58	67	68	82	79
Subtotal	353	311	277	227	264	259
Total	454	454	588	409	442	462

1/--The "All other" Eastern European countries are Bulgaria, Czechoslovakia, and Hungary. Totals may differ because of rounding.

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

China also purchased less U.S. farm goods during 1979-83, particularly of grain, as their own domestic crop production rose and their need for U.S. grain and feedstuffs diminished. Moreover, Chinese purchases of U.S. cotton diminished as their own cotton output expanded. Since 1983, the Chinese have failed to fulfill their obligations to purchase the minimum 6 million metric tons of U.S. grain specified in its long-term grain agreement with the United States, owing in part to abundant Chinese grain supplies, to availability of

1/ U.S. International Trade Commission, U.S. Embargoes on Agricultural Exports: Implications for the U.S. Agricultural Industry and U.S. Exports (USITC Publication 1461), December 1983.
2/ U.S. Department of Agriculture, Frank Gomme, "USSR Likely to Remain Key Presence in World Grain Trade," Foreign Agriculture, Feburary 1985, pp. 9-11.

lower priced Argentine and French wheat, and to Chinese disgruntlement with the imposition in 1983 of tighter U.S. textile-product import quotas, according to several sources. 1/

In Eastern Europe, the decline in the purchases of U.S. farm exports by the seven countries in that region may be traced to a variety of factors, notably an inability of these countries to earn sufficient foreign currency to maintain previous import levels, the large foreign debt burden incurred by these countries, and to efforts by their Governments to reduce domestic food consumption, thereby reducing the need for imported grain and feedstuffs (their chief imported food product). There has also been competition with U.S. farm products in these markets from other exporting countries, which was also true in other foreign markets. The principal Eastern European countries owed the private banks in the leading Organization for Economic Cooperation and Development (OECD) countries about $40 billion in June 1982; debt service (interest and capital repatriation) has taken as much as one-third of an individual country's total export earnings from sale of goods and services, as shown in the following tabulation: 2/

Country	Foreign debt	Debt service as a share of exports of goods and services, 1982
	Billion dollars	Percent
Poland	13.8	1/
Yugoslavia	10.0	30.3
East Germany	9.4	29.0
Hungary	6.4	33.0
Total	39.6	1/

1/ Not available.

Weather

Weather is one of the principal short-term factors, if not the principal factor, affecting agricultural production in the world and will continue to be the major cause of year-to-year shifts in crop yields. Beginning in the early 1970's, weather variability in many regions of the world led to uncertainty of yields and crop sizes. This has been true even for the United States. According to data published by the USDA, the variation in U.S. annual corn

1/ Michael Weisskopf, "U.S. Seeks China Grain Deal," The Washington Post, Mar. 20, 1984; and Jon Scheid, "China Imposes Embargo on U.S. Soybeans, Cotton, after Textile Negotiations Fail," Feedstuffs, Jan. 24, 1983, p. 4.

2/ William Cline, International Debt and the Stability of the World Economy, Washington, DC, September 1983, p. 35, as derived from data from the Bank for International Settlements, the Institute for International Economics, and the Wharton Econometric Forecasting Associates. This debt does not take into account the amount of foreign debt owed to foreign governments, including that to the United States under programs of the USDA.

yields increased from 8 percent during 1964-68 to 13 percent during 1979-83. The variation in wheat yields rose from 3 to 6 percent, and that for soybeans increased from 5 to 9 percent.

Weather variations since 1980 in some cases due to heavy rains, in others to drought, and in some cases to freezes, have caused record or near-record reductions in yields. There were notable crop reductions in United States in 1981, 1982, and 1983 because of freezes and in 1980 and 1983 because of drought; in Australia in 1982 because of drought; in the Republic of South Africa in 1983 and 1984 because of drought; in the U.S.S.R. in 1981 and 1984 because of hot, dry weather; and in Canada in 1984 because of drought. On the other hand, favorable weather has enabled the United States in 1981 and 1982, the EC in 1984, and China in recent years to produce record crop yields.

Production Costs

U.S. production costs

The cost of production of U.S. farm products has risen sharply during the past several years, although prices received by farmers for their products rose only modestly, by a total of 4 percent, from 1979 to 1984. 1/ A measure of the cost of U.S. agricultural production is the prices paid by U.S. farmers for various production inputs including feed, feeder livestock, seed, fertilizer, chemicals, fuel, tractors, farm machinery, farm rental fees, interest payable for debt, taxes paid, wages for farm labor, and fees paid for other farm services. According to data collected by the USDA, the prices paid by farmers for all production inputs (commodities, services, interest, taxes, and wage rates) rose by 31 percent from 1979 to 1983, from an index (1977=100) of 123 to an index of 161 (table 12); this is a rate of increase of about 7 percent annually for the 4 years. The most rapid increases in production costs occurred during 1979-81, thereafter abating; from 1983 to 1984, the rate of increase for cost of the production items rose by about 2 percent, to an index of 164.

Until 1981, total production costs for U.S. farmers were driven upwards mainly by increased fuel costs and rising interest costs for farm real estate debt. Subsequent to that year, fuel prices actually declined, but interest costs continued their rise as did those of tractors, autos and trucks, and other farm machinery. For the five years 1979-83, interest cost payable for farm real estate rose by 78 percent; fuel and energy costs, by about 47 percent; and costs of tractors and self-propelled farm machinery, by 43 percent.

Foreign production costs

There have been a number of studies done on the costs of agricultural production of specific commodities in key producing areas of the world for a given year, but, owing to differences in their methodology, comparison of

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1/ The index (1977=100) for prices received by farmers for all farm products rose from 132 in 1979 to 137 in November 1984, or by 3.8 percent, according to the U.S. Department of Agriculture, Agricultural Outlook, various issues.

Table 12.--Index of prices paid by U.S. farmers for agricultural production costs, 1979-84

(1977=100)

Production costs	1979	1980	1981	1982	1983	1984
Production items:						
Feed	110	123	134	122	134	135
Feeder livestock	185	177	164	164	160	154
Seed	110	118	138	141	141	151
Fertilizer	108	134	144	144	137	143
Agricultural chemicals	96	102	111	119	125	128
Fuels and energy	137	188	213	210	202	202
Farm and motor supplies	115	134	147	152	152	148
Autos and trucks	117	123	143	159	170	182
Tractors and self-propelled machinery.	122	136	152	165	174	181
Other machinery	119	132	146	160	171	180
Building and fencing	118	128	134	135	138	138
Farm services and cash rent	117	127	137	145	147	151
Total	125	138	148	150	153	155
Interest payable per acre on farm real estate debt.	141	168	211	241	251	251
Taxes payable per acre on farm real estate.	107	117	123	131	137	132
Wage rates (seasonally adjusted)	117	127	137	143	147	150
(Commodities and services, interest, taxes, and wage rates).	123	138	150	157	160	164

Source: U.S. Department of Agriculture, Agricultural Outlook, various issues.

foreign with U.S. farm costs is difficult and not easily generalized for purposes of this study. Two alternative measures of foreign costs of agricultural production may be appropriate for comparison with U.S. farm costs: (1) foreign consumer price indexes giving some indication of production cost increases faced by foreign farmers and (2) an index of world prices of agricultural commodities traded internationally showing trends of prices received by foreign and U.S. farmers.

Foreign consumer price increases.--On the basis of data for 27 foreign countries that account for the majority of world agricultural trade (except that of nonmarket economy countries), 1/ the U.S. Department of Agriculture has indicated that a consumer price rise of about 48 percent occurred in key foreign countries from fiscal year 1979/80 (Oct. 1-Sept. 30) to fiscal year 1983/84, with overall consumer prices rising from an index (calendar year 1980=100) of 97 in 1979/80 to 144 in 1983/84 (table 13). During these 5 years, U.S. consumer prices rose from 100 in 1979/80 to 120 in 1983/84, or by 20 percent.

1/ The NME's are excluded from these 27 countries because of the intrinsic nature of NME's, their price indexes are often not meaningful.

Table 13.--Consumer price indexes, and foreign consumer cost indexes adjusted for exchange-rate changes, in the capital city of selected countries, fiscal years 1979/80 to 1983/84 1/

(Calendar year 1980=100)

Country	1979/80	1980/81	1981/82	1982/83	1983/84
	Consumer price index 2/				
Argentina	85	167	402	1,559	9,973
Australia	98	107	119	131	138
Brazil	85	173	344	762	2,208
Canada	97	109	122	130	136
France	96	109	124	135	147
India	96	110	120	132	144
Italy	95	113	132	153	171
Japan	98	104	107	109	112
Republic of Korea	93	117	129	134	137
Mexico	94	120	173	353	609
Netherlands	98	105	112	115	119
Saudi Arabia	99	102	104	105	104
Spain	97	111	127	143	160
United Kingdom	97	109	120	126	131
West Germany	99	104	111	115	118
Total 27, foreign countries 3/	97	109	120	132	144
United States 4/	100	108	112	115	5/ 120
	Foreign consumer cost index 2/				
Argentina	101	113	63	44	52
Australia	100	112	115	109	112
Brazil	101	125	130	109	92
Canada	100	109	119	127	128
France	100	92	86	79	75
India	100	109	106	110	109
Italy	100	94	90	91	89
Japan	100	114	106	107	113
Repubic of Korea	100	106	109	107	104
Mexico	101	123	105	83	95
Netherlands	100	88	85	82	77
Saudi Arabia	100	102	102	103	100
Spain	100	91	88	76	73
United Kingdom	101	107	99	90	84
West Germany	100	87	84	82	77
Total 27 foreign countries 3/	100	103	100	96	94

1/ The fiscal year runs from Oct. 1 to Sept. 30.

2/ The foreign consumer cost index is the consumer price index adjusted for changes in the bilateral, U.S.-respective foreign country's currency rate of exchange.

3/ Total includes the above listed countries and the following countries: Austria, Belgium, Chile, Colombia, Egypt, Greece, Morocco, Philippines, Singapore, Republic of South Africa, Switzerland, and Venezuela.

4/ Data are for calendar year.

5/ Preliminary.

Source: Compiled from data supplied by the U. S. Department of Agriculture, Foreign Agricultural Service and Economic Report of the President, February 1984, pp. 279-283.

The USDA also calculated a "foreign consumer cost index" (FCI), an index of foreign consumer prices deflated by the change in the exchange rate of the foreign currency to the U.S. dollar. The FCI thus indicates whether in U.S. nominal dollar terms a particular country's consumer prices have risen or fallen. The FCI (calendar year 1980=100) for the leading 27 countries fell irregularly from 100 in fiscal year 1979/80 to 94 in fiscal year 1983/84, or by 6 percent. This would indicate that, despite the sizable foreign consumer price increases, foreign consumer prices in nominal U.S. dollar terms have fallen. During 1980-84, there was a 20-percent rise in U.S. consumer prices.

Comparison of U.S. and foreign farm prices.--Another measure of costs of production is a price index of U.S. and foreign agricultural commodities traded internationally. During 1979-84, overall prices of agricultural exports from all countries including the United States peaked in 1980 and thereafter declined irregularly. The International Monetary Fund (IMF) price index (1975=100) of food product exports declined in nominal U.S. dollar terms from a peak of 141 in 1980 to 105, or by 26 percent, in 1983, but is projected to rise to 114, or by 9 percent, in 1984 (table 14). The price index for beverage agricultural commodities (such as wine, coffee, tea, or fruit juices) followed much the same pattern as did the price index for agricultural raw materials (such as cotton or tobacco).
During 1979-83, the IMF average price index for food product exports was 115, which is about 16 percent higher than the average index of 99 occurring during 1974-78.

Another useful benchmark for measuring price trends of agricultural products traded internationally is to compare prices of agricultural products with those of industrial (manufactured) product exports. If the nominal price index for world agricultural exports mentioned above is deflated by the price index for world exports of manufactures, a "deflated" price index for food product exports indicates that, during 1979-83, agricultural products became considerably less expensive relative to manufactured goods. The deflated (real) price index (1975=100) for food product exports averaged 77 during 1979-83, or some 21 percent below the average index of 97 during 1974-78.

It thus appears for agricultural exports from all countries including the United States that nominal U.S. dollar prices on an average increased during 1979-83 (when compared with those of the previous 5-year period), but deflated (relative to manufactured goods) or real prices of agricultural goods fell. The United States as a dominant exporter of food products and of some raw agricultural materials is likely to have experienced these same patterns as did the other leading exporting countries.

For specific individual commodities for which data have been reported consistently, prices of U.S. and foreign goods may be compared to obtain an indication of the competitiveness of U.S. farm products on world markets. Table 15 shows selected prices for wheat, corn, palm oil, soybean oil, and soybean meal. U.S. prices have moved in the direction of changes in foreign competitive commodities, although no clear pattern of foreign overselling or underselling on world markets can be seen from these data for 1979-84.

Table 14.--Non-oil, primary commodities: Indexes of export prices (unit values) of world exports, by type of commodity, average 1974-78 and 1979-83 and annual 1979-83

(1975=100)

Period	Total (All non-oil primary commodities	Food	Beverages	Agricultural raw materials	Metals
	Nominal (U.S. dollar terms)				
1974-78	122	99	194	123	113
1979	155	109	255	168	156
1980	169	141	224	175	172
1981	144	122	174	158	148
1982	127	97	178	136	135
1983	135	105	192	149	135
1979-83	146	115	205	157	149
	Real (deflated by the price of manufactures) 1/				
1974-78	118	97	180	118	109
1979	108	76	177	117	109
1980	106	89	140	110	108
1981	95	81	115	105	98
1982	86	66	121	93	92
1983	95	74	134	105	94
1979-83	98	77	137	106	100

1/ United Nations index of the prices (unit values) of manufactures exported by developed countries.

Source: Compiled from official statistics of the International Monetary Fund.

Table 15. Wheat, corn, palm oil, soybean oil, and soybean meal: World prices, by specified countries, 1979-83 January 1984, June 1984, and October 1984

(Per metric ton)

Period	Wheat			Corn		Palm oil	Soybean oil		Soybean meal 44%	
	United States 1/	Argentina 2/	Canada 3/	Australia 4/	United State 5/	Malaysia 6/	Argentina 2/	United States 7/	United States 7/	Hamburg 8/
1979	$162	$159	$171	$142	$118	$117	$652	$610	$160	$254
1980	176	203	192	175	129	159	586	522	217	271
1981	176	190	194	175	135	139	571	464	223	269
1982	161	166	165	160	110	109	445	404	197	233
1983	158	126	167	161	137	133	502	518	222	255
1984:										
January	153	129	177	153	144	138	875	623	222	255
June	151	144	169	154	147	141	783	785	192	210
October 9/	154	143	159	156	123	132	615	666	155	181

1/ No. 2 hard winter, ordinary protein, f.o.b. gulf ports.
2/ F.o.b. Buenos Aires.
3/ No. 1 western red spring, 13.5 percent protein, in store Thunder Bay.
4/ July-June crop year, standard white, f.o.b. selling price.
5/ U.S. No. 2 yellow, f.o.b. Gulf ports.
6/ Sumatran/Malaysian, c.i.f. North West Europe.
7/ Decatur, IL.
8/ F.o.b. ex-mill.
9/ Preliminary.

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

Transportation Costs

Most international trade in agricultural commodities is dependent on ocean freight. Freight costs are an important component of the landed cost of commodities in a foreign market.

Commodities can be shipped by one of two types of ocean freight service: liner or tramp. Liner service covers those ships that operate on fixed, scheduled routes that have regular ports of calls. Most liner service companies operate in conferences that legally divide shipping territories and set rates that are published.

Tramp service is irregular, with no established ports of call, and operates in a competitive market. Tramp rates are set by negotiations between the shippers and ship owners and fluctuate with changes in supply and demand.

The world merchant fleet consists of three principal ship types: freighters, bulk carriers, and tankers. Table 16 shows the total capacity of these three types of ships during 1980-84. Freighters and bulk carriers are the principal types of ships used to transport agricultural commodities. Freighter capacity has grown by 5 percent during 1980-84, and bulk carriers capacity has grown by 19 percent.

On January 1, 1984, the privately owned U.S. freighter fleet represented only 1.7 percent of the world's freighter ships and 3.5 percent of the deadweight tonnage of such ships. The privately owned U.S. bulk carrier fleet represented only 0.4 percent of the world's bulk carriers and 0.5 percent of the deadweight tonnage. Bulk carriers handle most of the international trade in grains; hence, the U.S. bulk carrier fleet is able to handle only a small portion of the U.S. trade in grains.

Table 16.--World merchant fleet 1/, by ship types, 1980-84

Year 2/	Freighters		Bulk carriers		Tankers	
	Number	Capacity	Number	Capacity	Number	Capacity
	Thousands	Million tons	Thousands	Million tons	Thousands	Million tons
1980	14.3	120	4.7	182	5.3	346
1981	14.2	121	4.8	185	5.4	346
1982	14.2	123	5.0	194	5.5	346
1983	14.3	125	5.2	208	5.6	336
1984	14.3	126	5.4	216	5.5	323

1/ Excludes combination passenger and cargo vessels.
2/ As of Jan. 1.

Source: Compiled from official statistics of the U.S. Department of Transportation, Maritime Administration.

Table 17 shows ocean freight rates for selected routes for bulk grain shipments. From 1979 to 1980, rates increased for all of the routes covered because of increased international wheat and feed grain marketing. In 1981, rates declined for all routes. Rates for most routes continued to decline through 1983, reflecting the decline in international trade brought on by the recession and the increase in the number of bulk carriers and total deadweight capacity of such carriers. The increase in the number of bulk carriers resulted from shipbuilding orders placed during the 1970's, when there was a shortage of such carriers.

Freight rates for bulk grain shipments were mixed in 1984, with rates generally increasing. Rates in 1984 were still substantially below rates in 1979 and 1980. Although rates for other types of commodities were not examined, the same competitive factors that caused the changes in freight rates for grains from 1979 to 1984 would most likely have affected other types of agricultural commodities similarly.

Table 18 shows freight rates for bulk grain shipments from Argentina to selected foreign markets in 1984. For those destinations where a comparison could be made between U.S. and Argentine freight rates, the United States had a comparative advantage in all instances.

U.S. cargo preference laws require that at least 50 percent of all U.S. Government-owned or financed cargo shipped between U.S. and foreign ports be carried on U.S.-flag ships. U.S.-flag vessels offering charter service generally are higher cost than foreign-flag charter vessels. The U.S. General Accounting Office (GAO) found that in 1980, Public Law 480 cargo accounted for 60 to 75 percent of the cargo moved on U.S.-flag vessels because of cargo preference. 1/ The U.S. Department of Agriculture must pay the difference between foreign-flag and U.S.-flag costs if U.S.-flag ships are used to ship Public Law 480 title I goods just to comply with cargo preference laws. The payment for this difference in 1980 was $58 million, with individual cargo differences ranging up to $100 per ton. In a recent court decision, 2/ the court held that the cargo preference laws also apply to shipments under the blended credit program.

Government Programs

Another major factor influencing world trade in agricultural products has been government programs, both U.S. and foreign, which act through a variety of mechanisms to influence the supply of and demand for agricultural products. Food, by its very nature, is the basis of human life, and virtually all governments attempt to control and influence to one degree or another the supply, distribution, production, processing, trade, and consumption of food. Domestic farm support programs as well as consumer-oriented programs are the primary programs undertaken.

1/ U.S. General Accounting Office, Economic Effects of Cargo Preference Laws, Rept. No. GAO/OCE-84-3, Jan. 31, 1984.

2/ U.S. District Court for the District of Columbia, Transportation Institute v. Dole, Feb. 21, 1985.

Table 17.--Average voyage charter rates for bulk grains from selected U.S. ports, 1979-84 1/

(Per metric ton)

Origin and destination	Flag	1979	1980	1981	1982	1983	1984
Great Lakes ports to--							
United Kingdom	Foreign	$27.95	$36.14	$28.75	$22.27	$18.79	$17.38
Antwerp-Rotterdam Amsterdam	----do--	25.93	33.91	27.93	20.50	19.30	19.01
West Germany	----do--	27.63	34.57	36.23	20.28	14.75	20.24
U.S. Gulf ports to--							
Antwerp-Rotterdam Amsterdam	----do--	13.25	17.42	13.21	8.48	7.94	8.92
Japan	----do--	21.52	27.81	24.02	16.49	16.50	15.22
U.S.S.R	United States	17.96	2/	2/	2/	2/	2/
West Germany	Foreign	15.13	17.68	16.05	8.35	8.14	9.34
Italy	----do--	22.23	28.62	21.26	13.92	14.88	16.60
Pacific ports to--							
India	2/	2/	49.21	38.38	2/	31.43	29.34
Japan	Foreign	18.76	19.62	16.53	12.91	10.16	10.34
Republic of Korea	----do--	23.53	31.34	10.70	13.27	9.54	10.05

1/ Average of rates for individual cargoes, weighted by volume.
2/ None reported.

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

Note.--The rates shown are weighted averages computed by using tonnage for each charter to weight the average rate. Some types of charters and some grain shipments may not be included.

Table 18.--Average voyage charter rates for bulk grains from Argentina, 1984 1/

Destination	Flag	Rate
		Per metric ton
Denmark	Foreign	$24.99
India	----do--	28.59
Italy	----do--	21.02
Japan	----do--	25.65
West Germany	----do--	18.25

1/ Average of rates for individual cargoes, weighted by volume.

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

This section concentrates on government programs that influence international trade in agricultural and food products, particularly policies of the principal world exporters and of world markets for food products. Because the topic of government programs is obviously so large, an effort has been made in this section to highlight changes that occurred during 1979-84 in government programs or government programs that became the object of trade disputes during the period.

Tariff and nontariff barriers

During the last (Tokyo) round of the Multilateral Trade Negotiations (MTN) of the General Agreement on Tariffs and Trade (GATT) concluded in 1979, it became clear to many observers that although reductions in tariffs on agricultural products could be achieved, nontariff barriers through a host of government programs were far more important in influencing overall international trade in agricultural products than tariff levels per se. 1/ Moreover, during the Tokyo round of the MTN, various codes on nontariff measures (NTM's), such as the Subsidies/Countervailing Duty Code, were enacted and included for the first time under the GATT. However, it is doubtful that the NTM codes adopted by signatories to the Tokyo round of the GATT contributed to significantly lowering barriers to increased world agricultural trade since 1979. The Commission concluded in its report to the Senate Committee on Finance in 1979 that for the food and kindred products sector: 2/

> Most countries maintain a system of nontariff measures to control at least part of their agricultural trade. Generally, these measures will be in conformity with the NTM agreements and thus will continue to hamper the flow of trade. Included in these measures are preferential tariff rates, variable levies, quantitative limitations, and state-trading monopolies. These factors can, for individual products, far outweigh any of the effects of tariff concessions and NTM agreements.

One primary reason for these tariff and nontariff measures is, of course, the existence of domestic agricultural support programs. As a former U.S. agricultural official who participated in the Tokyo round of the MTN's aptly observed concerning agricultural trade policy in the 1980's: 3/

1/ U.S. Senate, Committee on Finance, "Industry/Agriculture Sector Analysis," MTN Studies: Agree- ments Being Negotiated at the Multilateral Trade Negotiations in Geneva--U.S. International Trade Commission Investgigation No. 332-101, A Report Prepared at the Request of the Committee on Finance, United States Senate, pt. 5, vol. 6, August 1979, pp. 1-78.

2/ U.S. Senate, Committee on Finance, op. cit., p. 55.

3/ Former U.S. Assistant Secretary of Agriculture Dale Hathaway, "Agricultural Trade Policy for the 1980's," in Trade Policy in the 1980's, Washington, DC, 1983, pp. 435-453.

> . . . no sovereign country is willing to put its domestic food and fiber policy forward as a candidate for outside negotiation and determination. At the present time it would be political suicide for the European Community (EC), Japan, or the United States to do so, yet it is the domestic agricultural policies of these trading partners that are the root cause of the continuing agricultural trade problems that threaten to erupt into a major trade war. . . .

Concerning the reduced tariffs (with staged rate reductions occurring during 1980-87) on agricultural products traded among signatories of the Tokyo round of the GATT, the Commission concluded in 1979 that for food and kindred products: 1/

> On balance, U.S. agriculture should benefit modestly if the tariff concessions and NTM agreements are implemented by the United States and its trading partners. U.S. exports of agricultural products are expected to increase by $500 million or more. The United States Trade Representative (USTR) estimates U.S. imports will rise by about $100 million as a result of the MTN--equivalent to less than 1 percent of all agricultural imports in 1978. About one-half of the increase could take place in dairy products due to new bilateral trade agreements between the United States and its principal foreign suppliers. Domestic consumers probably will not benefit from the MTN owing to the relatively small increases anticipated in imports and exports over an extended period of time.

Since the prognosis by the Commission, there have been few systematic analyses by official U.S. agencies of the effects of overall tariff reductions on agricultural trade affecting the United States. The Commission publishes annually a report that inter alia highlights foreign and U.S. tariff and nontariff barriers that have become the object of international concern or trade disputes in its Operation of the Trade Agreements Program Report, 2/ but no comprehensive analysis of tariffs and nontariff barriers is undertaken. A report in 1981 of the U.S. Department of Agriculture highlighted foreign trade restrictions, both tariff and nontariff barriers, in principal foreign markets for grain and oilseeds; however, much of the data in that report were based upon conditions existing in 1978. 3/

1/ U.S. Senate, Committee on Finance, op. cit., p. 55.
2/ The most current report being Operation of the Trade Agreements Program 35th Report (USITC Publication 1535), June 1984.
3/ U.S. Department of Agriculture, Cathy L. Jabara, Trade Restrictions in International Grain and Oilseed Markets, January 1981.

Trade disputes relating to government programs

During 1979-84, a number of disputes arose concerning either U.S. exports of agricultural products or, in some cases, U.S. imports of these products. Under section 301 of the Trade Act of 1974, the President may take all appropriate and feasible steps to obtain the elimination of certain trade practices of foreign governments where, in his judgement, such practices are unjustifiable, unreasonable, or discriminatory, and burden or restrict U.S. commerce. Nine agricultural cases under section 301 were filed or were pending as of 1984. 1/ Cases that were completed or terminated or were pending are shown in table 19.

Bilateral or multilateral agreements

Another factor influencing agricultural trade has been bilateral or multilateral agreements between governments concerning particular agricultural commodities such as wheat, soybeans, sugar, or cotton. As part and parcel of these agreements, barter/countertrade agreements are frequently negotiated. Highlighted below are selected leading agreements that influenced world agricultural trade during 1979-84.

United States-U.S.S.R. grain agreement.--The first long-term grain agreement (LTA) between the United States and the U.S.S.R. was signed on October 10, 1975, providing for a purchase of 6 million metric tons of U.S. grain annually, with an addition of 2 million metric tons more of grain purchases possible without further Government-to-Government consultation. In January 1980, President Carter embargoed sales of U.S. grain above the purchase level of 8 million metric tons specified in the LTA. 2/ In April 1981, President Reagan lifted the embargo. The LTA was extended without modification until August 1983, when another 5-year LTA was signed providing for annual sales of 12 million metric tons of wheat, corn, soybeans, or soybean meal. In January 1984, in its first semiannual consultations with the Soviets, the United States offered to raise the amount specified to 22 million metric tons, but the U.S.S.R. declined to accept and in September 1984 the United States reiterated its offer of the 22-million-metric-ton purchase level for crop year 1984/85.

1/ U.S. International Trade Commission, U.S. Embargoes on Agricultural Exports: Implications for U.S. Agricultural Industry and U.S. Exports (USITC Publication 1461), December 1983; and Frank Gomme, "USSR Likely to Remain Key Presence in World Grain Trade," Foreign Agriculture, February 1985, pp. 9-11.

2/ Sources: Susan Epstein, "Agriculture: "Section 301 Unfair Trade Cases," Issue Brief, Congressional Research Service, Aug. 28, 1984, and Ellen Terpstra, "Agriculture: "Section 301 Unfair Trade Case," Issue Brief, Congressional Research Service, May 14, 1982; and U.S. International Trade Commission, Operation of the Trade Agreements Program 35th Report (USITC Publication 1535), June 1984, pp. 367-372.

Table 19.--Agricultural cases filed or pending under sec. 301 of the Trade Act of 1974, 1984

Case	Country or countries	Nature of allegations
Wheat flour exports	EC	Unfair export subsidies injuring U.S. exports to third country markets.
Citrus products imports	EC	Preferential EC import duties injure U.S. exports to the EC.
Sugar exports	EC	EC exports subsidies injuring U.S. sugar exports and depressing world prices.
Poultry exports	EC and Brazil.	EC and Brazilian export subsidies displace U.S. exports from third-country markets and undercut prices.
Canned peaches, canned pears, and raisin imports	EC	Internal EC production subsidies have displaced U.S. exports to the EC.
Pasta exports	EC	EC export subsidies threaten serious prejudice to U.S. pasta manufacturers by displacing U.S. products.
Soybean oil and meal exports and imports	Argentina, Brazil, Canada, Malaysia, Spain, and Portugal. 1/	These countries' use of export subsidies, tax rebates, consumption quotas, and subsidies for their domestic processors have displaced U.S. exports of soybeans and products from world markets.
Rice exports	Taiwan	Export subsidies restrict U.S. rice exports to third-country markets and burden the U.S. price-support program.
Cattle hide exports	Argentina	Unfair export taxes on Argentine cattlehide exports burden the U.S. tanning industry.

1/ The petitioner, the National Soybean Processors Association, alleged that these 6 countries engaged in these practices to 1 degree or another; the United States Trade Representative (USTR) accepted complaints only against Brazil, Spain, and Portugal.

Source: U.S. International Trade Commission.

The United States, like all of the other major grain and oilseed suppliers to the U.S.S.R. except Australia, has some sort of grain-trading agreement with the U.S.S.R. 1/ Among the other countries with such agreements in effect for crop year 1984/85 are Canada, Argentina, France, Brazil, Hungary, Austria, and Thailand.

United States-China agreements.--The United States and China signed a 4-year long-term grain agreement in 1980 in which the Chinese committed themselves to purchasing a minimum of 6 million metric tons of wheat and corn annually during 1981-84. 2/ In January 1983, the Chinese Government announced that it would cease purchases of U.S. cotton, soybean, and chemical fibers in response to a decision by the U.S. Government to tighten U.S. imports of Chinese textile products. 3/ In August 1983, the United States and China signed a new textiles trade agreement that was retroactive to January 1, 1983, and that runs until December 31, 1987. However, the Chinese did not purchase the contractual minimum of 6 million tons of grain during 1983 (purchasing instead 3.8 million tons), nor was it anticipated that they would meet the 6-million-ton minimum in 1984 as well. 4/

Apart from the textile trade dispute, expanded Chinese production of cotton, soybeans, and grain has made it unlikely that China would import the amount of these products imported in the late 1970's and early 1980's. 5/ The other LTA's of China with the EC, Argentina, and Australia expired by the end of 1984, with the only other LTA on grain remaining, with Canada, set to expire in July 1985.

United States-Mexico agreements.--For several years, the Mexican Government's commodity supply agency (State-trading corporation) CONASUPO, and the U.S. Department of Agriculture have signed 1-year agreements in which Mexico indicates its intended purchases in the next calendar year of agricultural commodities. Prior to 1982, however, Mexico did not receive financing or credit (except short-term, 180-day financing) guarantees under programs of the Commodity Credit Corporation (CCC) of the USDA. 6/

1/ Frank Gomme, op. cit., p. 10.

2/ Sources for this section include, U.S. International Trade Commission, Operations of the Trade Agreements Program 34th Report, 1983, and 35th Report, June 1984 (USITC Publications 1414 and 1535), pp. 220-222, and p. 374, respectively; and U.S. Department of Agriculture, China Outlook and Situation Report, June 1984.

3/ Jon Scheid, "China Imposes Embargo on U.S. Soybeans, Cotton After Textile Negotiations Fail," Feedstuffs, Jan. 24, 1983, p. 4; "China Curbs Import of U.S. Products," The Washington Post, Jan. 20, 1983; and "China Removes Ban on U.S. Farm Goods," The Washington Post, Sept. 8, 1983.

4/ U.S. Department of Agriculture, China and Outlook and Situation Report, June 1984, p. 13.

5/ Ibid., p. 13.

6/ For a full description of the CCC export programs, see the section below entitled, "Export Programs."

In 1982 and 1983, however, Mexico experienced drought and adverse growing conditions necessitating sizable imports of grains and other foodstuffs. Owing to its sizable foreign debt, Mexico experienced difficulties in obtaining the U.S. dollars to purchase U.S. agricultural commodities. 1/ Mexico for the first time requested U.S. Government assistance to purchase needed agricultural commodities in fiscal year 1983 (Oct. 1, 1982-Sept. 30, 1983); the CCC provided credit to Mexico of $1.3 billion, with most used for feed grains, oilseeds and oilseed meal, and poultry products. The credit took the form of CCC guarantee of private loans from banks (under the CCC Credit Guarantee Program, GSM-102); Mexico was the largest recipient of these funds in that year (the latest for which published data are available). 2/ Mexico was further authorized another $400 million of credit guarantees in October-December 1983. 3/

International commodity agreements.--The primary multilateral agreements covering agricultural commodities to which the United States belongs are the international commodity agreements on coffee, sugar, wheat, jute, and natural rubber. 4/ These international commodity agreements differ greatly in actual provisions of their programs, but are generally agreements negotiated between producing and consuming countries aimed at reducing fluctuations in prices, improving long-run producer earnings, and delivering a more steady and reasonably priced commodity to the consuming country. 5/ Except for the Interntional Wheat Agreement (IWA), the United States belongs to the five named agreements as an importing or consuming nation. The principal activities of the IWA include mainly exchanging trade data, collecting information on food needs, and providing food aid to developing countries; there is no provision for buffer stocks of wheat or minimum export/import price levels, unlike the other agreements. In 1983, the United States joined the International Coffee Agreement, which does provide for some measure of export controls, and the International Jute Agreement, which provides for suggested price terms.

1/ U.S. International Trade Commission, OTAP 35th Report (USITC Publication 1535), June 1984, pp. 282-307.

2/ U.S. Department of Agriculture, Summary of Exports, December 1982, and Notice to Exporters: Status on GSM-102 and Blended Credit, Sept. 1983; and The World Food Institute, Robert Wisner and Craig A. Chase, World Food Trade and U.S. Agriculture, 1960-83, Iowa State University., Ames, IA, August 1984, pp. 41-42.

3/ U.S. International Trade Commission, OTAP 35th Report (USITC Publication 1535), June 1984, p. 301.

4/ This section draws heavily on U.S. International Trade Commission, OTAP 34th and 35th Reports (USITC Publications 1414 and 1535), 1983 and June 1984, pp. 95-102, and pp. 131-142.

5/ For general background on international commodity agreements, see U.S. Senate, Committee on Finance, International Commodity Agreements, a Report of the U.S. International Trade Commission, Washington, DC, 1975.

Voluntary meat export agreements.--The U.S. Department of Agriculture monitors imports and U.S. production of certain meat of cattle and sheep (except lamb) and negotiated certain voluntary export restraint agreements (VRA's) or exchanged letters of understanding covering such products with the principal suppliers of such meat to the United States during 1979-84. 1/ By virtue of certain conditions set forth in the Meat Import Act of 1979, 2/ certain meat of cattle and sheep (except lamb) are subject to an absolute quota by Presidential proclamation. In 1979, quotas amounting to 1.6 billion pounds were imposed but were later suspended that same year. During 1980-81, no quotas were imposed, nor were there voluntary restraint agreements in effect. In 1982, VRA's were negotiated with the leading meat-supplying countries of Australia, New Zealand, Canada, Mexico, and certain Central American countries. The three largest supplying countries--Australia, New Zealand, and Canada--in August 1983 agreed voluntarily to limit their exports to the United States for the remainder of that year. 3/ There were no VRA's negotiated during 1984, nor were quotas imposed.

U.S. production supports and marketing programs

Key provision of the U.S. agricultural support programs will be highlighted in greater detail under the commodity sections of this report, but an overall summary of the program is presented here. 4/ The Agricultural and Food Act of 1981, the Agricultural Programs Adjustment Act of 1984 (which amend the statutory provisions of the Agricultural Adjustment Act of 1938), and the Agricultural Act of 1949 provide the basis for the Federal Government's agricultural support program. 5/ The commodities supported include certain grains (wheat, rice, corn, sorghum, barley, and oats); soybeans; peanuts; dairy products; cotton; wool and mohair; sugar; honey; and tobacco.

The four key provisions of the price-support program are nonrecourse loans, the farmer-owned grain reserve, deficiency payments, and reductions in planted acreage. Nonrecourse loans are made to farmers at a specified loan

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1/ Additional description of the VRA's on meat is discussed under the sections on "meats, including poultry and eggs."

2/ Public Law 96-177, approved Dec. 31, 1979 (19 U.S.C. 1202).

3/ VRA's were negotiated with Australia and New Zealand, and letters of understanding were exchanged with Canada.

4/ This section is drawn from a variety of sources, including U.S. Department of Agriculture, Economic Research Service, Background for 1985 Farm Legislation (separate reports on Dairy, Soybeans, Corn, Barley, Wool and Mohair, Rice, Oats, Tobacco, Cotton, Peanuts, Wheat, Meats, Sorghum, Sugar, and Honey), September 1984; Congress of the United States and Congressional Budget Office, Crop Price-Support Programs: Policy Options for Contemporary Agriculture, February 1984.

5/ The Agriculture and Food Act of 1981 (Public Law 97-98) expires at the end of the 1985 crop year, and if it is not extended, and if new legislation covering this area is not enacted by the Congress, the "permanent" legislation encompassed in the two cited acts of 1938 and of 1949, suspended since 1970, would become effective.

rate or price support per unit of production. Farmers may store crops and use them as collateral for a 9- to 12-month period, after which they either elect to repay the loan plus interest or the Government agrees to accept the pledged commodity as full payment. As part of this support, the farmer was reimbursed by the Government by agreeing to reduce the planted acreage in the commodity and to abide by other provisions governing conservation practices. According the Congressional Budget Office (CBO), acreage reduction during 1979-84 was used on a large scale in response to burdensome crop supplies, low prices, and record price-support outlays by the Federal Government. 1/ Under the farmer-owned grain reserve, the Government provides a nonrecourse loan and annual payments to farmers to store pledged grain generally for a 3-year period or until market prices or supply conditions dictate that this grain be released into the market. Another innovation of the price-support program during this period was the so-called Payment In Kind (PIK) added in 1983 and continued for wheat in 1984. Under the program, farmers were obliged to reduce acreage without compensation for part of their eligible acreage and were reimbursed for further acreage reductions on the basis of 95 percent of the normal farm yields for wheat and 80 percent of such yields for other crops.

During 1979-84, U.S. Government expenditures for price-support operations rose sharply, peaking at about $19 billion in fiscal year 1983/84, as shown in the following tabulation, compiled from data supplied by the CBO (in millions of dollars): 2/

Year ended Sept. 30--	Commodity Credit Corporation price-support and related expenditures		
	Major crops 1/	Other commodities 2/	Total
1979	1,647	1,925	3,572
1980	2,153	564	2,717
1981	1,370	2,630	4,000
1982	8,989	2,609	11,598
1983	12,549	6,208	18,757
1984 3/	1,449	4,504	5,953

1/ Wheat, feed grains, rice, upland cotton, and soybeans.
2/ Dairy, other commodity programs, interest, and administrative and nonadministrative expenses.
3/ Projected as of February 1984.

On the basis of provisions of the support programs, the CBO projected in early 1984 that expenditures for price-support will average $12.1 billion during fiscal years 1984/85 to 1987/88. 3/

1/ CBO, op. cit., p. 6.
2/ CBO, Supra., p. 31.
3/ CBO, Ibid., p. 32.

In order to protect domestic agricultural support programs section 22 of the Agricultural Adjustment Act of 1933, as amended (7 U.S.C. 624), authorizes the President to impose fees or quotas on imported products. Section 22 authorizes such fees or quotas when it is determined that imports are entering or are practically certain to enter in such quantities as to render or tend to render ineffective, or materially interfere with, any price-support or other program of the Department of Agriculture. Currently, section 22 fees apply to U.S. imports of sugar and quotas apply to U.S. imports of dairy products, peanuts, cotton, and certain sugar containing products. 1/ Provisions of these quotas vary, but in general an annual quota is set to prevent disruption of the domestic price-support program.

Foreign government programs affecting agricultural trade

As mentioned previously, virtually all governments of the world have programs that affect food and fiber production, whether oriented at support of their own farmers and processing industry or toward their consumers with regard to food subsidies or phytosanitary requirements. In examining changes in world trade flows of agricultural products during 1979-84, 15 countries/regions with key agricultural Government programs that most directly affect U.S. exports or imports of agricultural products were studied as follows:

Country/region	Commodity affected	Commodity program import or export oriented in impact on world trade
European Community (EC)	Grain	Export
	Dairy	Export
	Meat (poultry)	Export
	Oilseeds	Import
	Fruits and vegetables	Import
Australia	Grain	Export
	Dairy	Export
	Meat	Export
Japan	Grain	Import
	Dairy	Import
	Meat	Import
	Oilseeds	Import
	Fruits and vegetables	Import
New Zealand	Dairy	Export
	Meat	Export
Brazil	Oilseeds	Export
	Grain	Import
	Fruits and vegetables	Export
Argentina	Grain	Export
	Oilseeds	Export

Country/region	Commodity affected	Commodity program import or export oriented in impact on world trade
Canada	Grain	Export
	Oilseeds	Export
	Meat	Export
USSR	Grain	Import
	Dairy	Import
Thailand	Grain	Export
PRC	Grain	Import
Egypt	Grain	Import
Republic of Korea	Grain	Import
Mexico	Grain	Import
Taiwan	Grain	Import
Malaysia	Oilseed	Export

These foreign government programs are examined in detail in the commodity sections of this report regarding world trade patterns and shifts.

U.S. export programs

The U.S. Government sponsors several programs designed to promote and develop new markets for U.S. agricultural products. These export market development programs are administered by the Foreign Agricultural Service of the U.S. Department of Agriculture and include the Industry Foreign Market Development Program (cooperator program); the Export Incentive Program; the Regional State Export Groups Program; the Trade Opportunity Referral Service Programs; and trade fairs, commodity identification, and product-testing studies. The cooperator program is the major market development program, accounting for 90 percent of expenditures; the program objective is to develop, expand, and maintain long-term commercial markets for U.S. agricultural exports.

Other U.S. Government export assistance programs include concessional exports under the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480), Agency for International Development (AID) program exports, and U.S. Government loan guarantees though the Commodity Credit Corporation of the U.S. Department of Agriculture.

1/ The U.S. import quotas on sugar are pursuant to headnote 2, to subpt. A, pt. 10, Schedule 1 of the Tariff Schedules of the United States; sec. 22 fees apply to imports of sugar, and sect. 22 quotas limit imports of certain sugar-containing articles.

Title I of Public Law 480 provides for U.S. Government financing (long-term, low-interest) of sales of agricultural products to friendly countries with low per capita GNP ($730 or less per year). Title II of Public Law 480 provides for food aid donations. The AID program provides financial grants and loans for agricultural products purchases. U.S. concessional exports peaked in fiscal year 1980 at $533 million and have trended downward since (table 20). Wheat and wheat flour have been the principal products exported.

The U.S. Government, through the CCC of the USDA operates a program of loan guarantees to aid exporting firms in making sales to foreign buyers unable to obtain commercial credit. Under the program, private lending institutions provide short-term or intermediate-term credit, and the CCC guarantees repayment of the loan and part of the interest. Mexico received over $1 billion of CCC credit in fiscal years 1982/83 and 1983/84.

In addition, the U.S. Government developed a "Blended Credit Program" in fiscal year 1982/83 to encourage agricultural exports. The program involves a blend of interest-free Government loans and CCC credit guarantees that cover up to 98 percent of the principal and up to 8 percentage points of interest. The blended credit program is used for sales beyond the levels that recipient countries would have purchased without the program. U.S. exports under CCC credit programs increased irregularly from $63.2 million in fiscal year 1978/79 to $5.0 billion in fiscal year 1982/83 (table 21).

CCC expenditure for long-term credit sales and foreign currency sales ranged from $1.3 billion to $1.7 billion annually in fiscal years 1979/80 to 1983/84 (table 22). Net CCC expenditures for price-support and foreign assistance programs increased from $3.8 billion in fiscal year 1979/80 to a peak of $19.8 billion in 1982/83; in 1983, such expenditures amounted to $8.4 billion.

Barter/countertrade

Another form of government program involvement in international trade in agricultural commodities has become increasingly more prevalent, and that is the barter and barter-type agreement in which agricultural commodities from one country are exchanged in kind for other goods and services from another. Barter trade may involve other nonmonetary exchanges or other reciprocal trade such as counter trade. In the case of the United States, such barter trade in agricultural commodities has frequently involved the U.S. Government, often under provisions of the U.S. Department of Agriculture under Public Law 480 and under the CCC Charter Act. In the case of other countries, one or both of the two parties to a barter or barter-type agreement frequently involve governments or State-trading corporations with regard to agricultural commodity trade. Private barter trade deals are often conducted in secrecy, because once a type of product is known to be bartered, others will go after similar deals. Thus, "the good countertrade deal is the one you don't hear about." 1/

1/ "Countertrading Grows as Cash-Short Nations Seek Marketing Help," The Wall Street Journal, Mar. 13, 1985.

Table 20.--U.S. concessional exports of farm products, by commodities and program areas, fiscal years 1979-83

(In millions of dollars)

Commodity and fiscal year (October-September)	PL-480: Long-term credit sales	PL-480: Donations 1/	Aid mutual security	Total government programs 2/	Concessional program exports as percent of total exports
1983:					
Wheat and flour	472.1	159.6	29.8	661.5	10.6
Corn	75.3	10.2	47.5	133.0	2.3
Soybean oil	87.0	48.5	0	135.5	29.3
Cotton	9.4	0	0	9.4	.6
Milk-nonfat dry	0	12.8	0	12.8	8.7
Others	154.5	59.7	52.5	266.8	.8
1982:					
Wheat and flour	497.6	69.3	0	567.0	7.4
Corn	36.1	9.0	38.9	83.9	1.4
Soybean oil	75.8	60.3	1.9	138.0	27.7
Cotton	9.2	0	0	9.2	.4
Milk-nonfat dry	0	11.2	0	11.2	27.3
Others	103.6	135.4	41.5	280.5	1.2
1981:					
Wheat and flour	495.1	83.0	0	578.0	7.2
Corn	78.3	30.9	57.0	166.3	2.1
Soybean oil	73.3	96.6	0	169.9	38.5
Cotton	3.2	0	0	3.2	.1
Milk-nonfat dry	0	34.5	0	34.5	58.7
Others	123.0	241.3	84.3	449.1	1.8
1980:					
Wheat and flour	531.5	87.6	11.5	630.5	9.6
Corn	88.0	31.4	28.5	147.8	1.9
Soybean oil	62.8	109.4	0	172.2	22.0
Cotton	12.3	0	0	12.3	.4
Milk-nonfat dry	0	22.7	0	22.7	53.4
Others	164.8	225.4	142.8	533.0	2.4
1979:					
Wheat and flour	542.1	76.2	1.0	619.3	13.0
Corn	63.5	12.5	146.8	222.8	3.7
Soybean oil	34.4	85.5	1.8	121.8	17.3
Cotton	18.4	0	0	18.4	1.0
Milk-nonfat dry	0	22.8	0	22.8	83.4
Others	134.3	196.1	154.5	485.0	2.6

1/ Donations include voluntary relief agencies. The world food program, and Government-to-Government conations.

2/ May not add due to rounding.

Source: U.S. Department of Agriculture.

Table 21.--U.S. concessional and CCC financed agricultural exports, fiscal years 1979-83

(In millions of dollars)

Program types	Fiscal year ending September 30--				
	1979	1980	1981	1982	1983 1/
Total concessional programs	1,490.1	1,518.5	1,401.0	1,089.8	1,219.0
CCC programs:					
GSM-101	63.2	698.1	118.6	-	-
GSM-102 (credit guarantees)	-	-	1,743.6	1,386.5	3,920.5
GSM-102 (blended credit)	-	-	-	-	869.6
GSM-5 (interest-free loans for blended credit)	-	-	-	-	217.4
GSM-201 (breeding stock loans)	-	960.2	-	-	-
Total CCC programs	63.2	1,658.3	1,862.2	1,386.5	5,007.5
Total concessional and CCC programs	1,553.3	3,176.8	3,263.2	2,476.3	6,226.5
Concession and CCC programs as percent of total U.S. Agricultural Exports	4.9	7.8	7.5	6.3	17.9

1/ Preliminary.

Source: U.S. Department of Agriculture.

Table 22.--Commodity Credit Corporation: Expenditures and receipts for CCC and foreign assistance programs of the U.S. Department of Agriculture, fiscal years 1979-83

(In millions of dollars)

Item	1979	1980	1981	1982	1983
	Fiscal year beginning Oct. 1--				
Gross expenditures (outlays):					
Loans for commodities	3,866	5,623	11,358	13,622	5,130
Purchases of commodities	2,643	2,503	2,593	7,644	7,676
Storage and handling	133	200	239	487	398
Producers storage payments	254	32	679	964	268
Payments to farmers	418	1,030	1,491	3,599	2,117
Short and intermediate term export credit sales	719	22	46	138	147
Interest	1,086	1,194	79	4,034	1,641
Operating expenses	164	168	302	334	373
PIK entitlements	-	-	-	420	8,445
All others 1/	949	1,142			
Subtotal	10,266	11,914	17,297	31,983	27,212
Receipts:					
Repayments of commodity loans	3,932	5,449	4,342	9,089	10,292
Sales of commodities 2/	962	902	562	1,619	9,251
Export credit sales	1,386	1,005	330	80	64
Interest income	568	973	92	509	577
Dairy assessment	-	-	-	254	832
All other	340	371	356	424	801
Subtotal	7,188	8,700	5,682	11,975	21,817
Net change in working capital	-327	822	38	-1,157	1,921
Net expenditures (gross expenditures less receipts plus net change in working capital)	2,751	4,036	11,653	18,851	7,315
Foreign assistance Programs (FAP):					
Gross expenditures (outlays), (sales for foreign currency):					
Long-term credit sales	909	846	832	843	804
Foreign donations	597	847	515	557	656
Subtotal	1,505	1,694	1,347	1,400	1,459
Receipts:					
Foreign currency sales	170	151	108	53	40
Long-term credit sales	262	289	310	355	334
Subtotal	432	440	418	408	374
Net expenditures (gross expenditures less receipts)	1,073	1,254	929	992	1,085
Total net expenditures for CCC and foreign assistance programs	3,825	5,290	12,582	19,843	8,401

1/ Includes expenditures under the National Wool and Mohair Program.
2/ Includes sales proceeds for PIK of $1,062 million in fiscal year 1982/83, and $8,555 million in fiscal year 1983/84.

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

Note.--Because of rounding, figures may not add to the totals shown.

Two studies provide most of the comprehensive data reported on world barter/countertrade transactions, and although both studies were published in 1982, they are now somewhat out of date. A USDA study done in April 1982 indicated that there were no barter transactions occurring during January 1976-January 1982 under provisions of the CCC Barter Program. 1/ As reported by the USDA, a large number of agricultural exporting or importing countries rely on barter, particularly NME's or developing countries with foreign currency shortages or exchange controls. 2/ The Commission also undertook its own study in 1982 on barter/countertrade, although it was aimed at nonagricultural trade. 3/

WORLD TRADE PATTERNS AND SHIFTS

With economic recovery underway following the 1980-82 world recession (table 23 and fig. 1), world trade is expanding (fig. 2) and inflation in the developed countries is largely under control (fig. 3). Although economic indicators are pointing toward continued economic growth, it is unlikely that world trade will expand at the pace of the 1970's. Increases in trade will be tempered by the pattern of the worldwide recovery in which growth has been concentrated in only a few of the developed countries outside of the United States and in some of the middle-income developing countries.

Table 23.--Estimated world real gross national product, by area, 1979-83

(In billions of U.S. dollars)

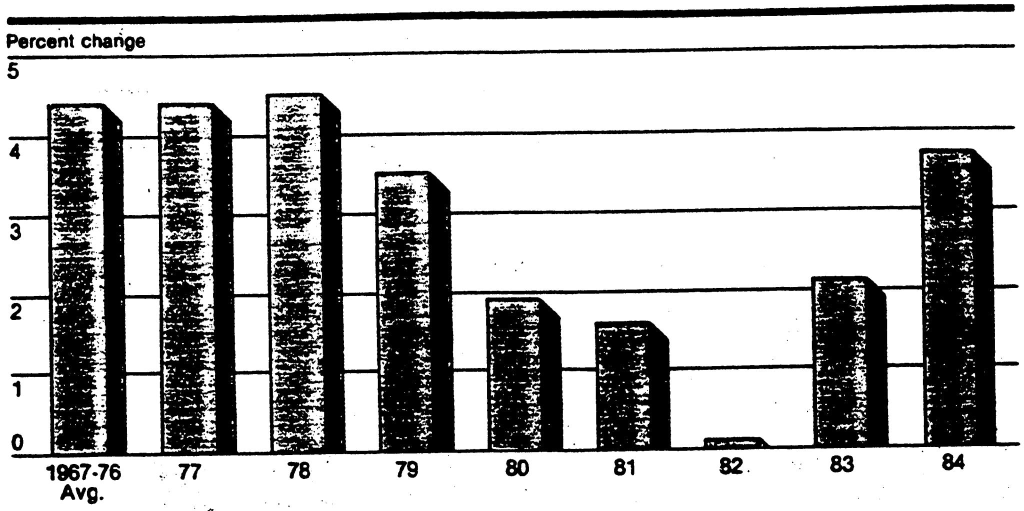
Area	1979	1980	1981	1982	1983
World	12,500	12,700	13,000	13,000	13,300
Developed	7,590	7,680	7,830	7,790	7,790
Less developed	2,030	2,130	2,160	2,180	2,190

Source: Central Intelligence Agency, Handbook of Economic Statistics, 1984.

Demand for agricultural exports in the post recessionary period is expected to be strongest in Japan and other Far Eastern countries, the Middle East, and Canada given their level of economic performance in 1984. The United States will also remain a major world export market, a result of the fast-paced economic expansion and the value of the dollar.

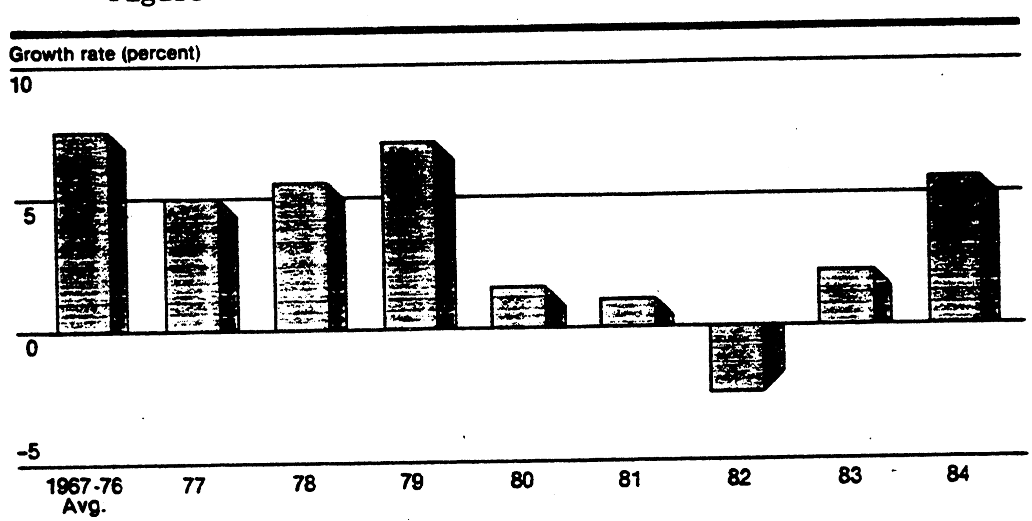
1/ U.S. Department of Agriculture, Donna Vogt, Cathy Jabara, and Dee Linse, Barter of Agriculture Commodities (IED staff report), April 1982, pp. 15-16.
2/ Op. cit., pp. 11-12.
3/ U.S. International Trade Commission, Analysis of Recent Trends in U.S. Countertrade (USITC Publication 1237), March 1982.

Figure 1.--World economic growth, 1977-84.



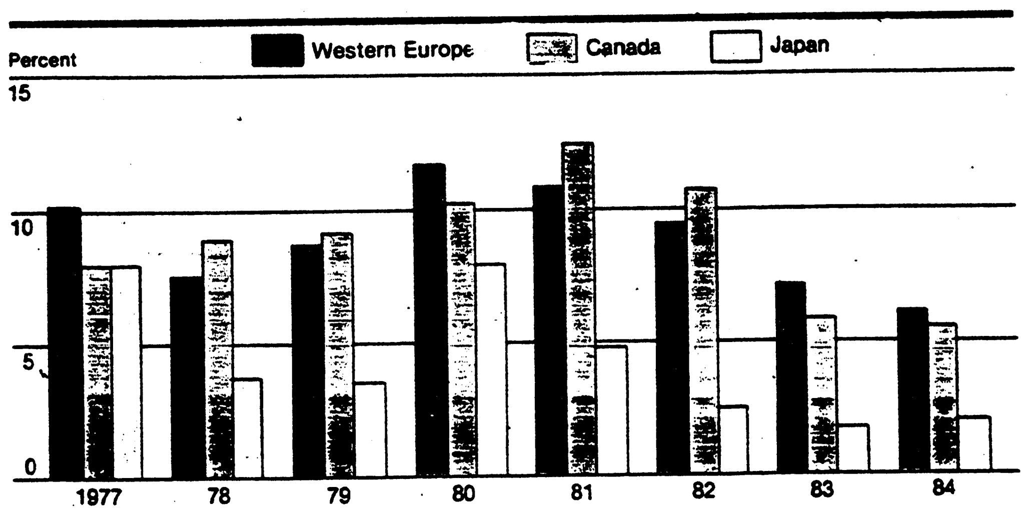
Source: U.S. Department of Agriculture.

Figure 2.--World trade in all commodities, 1977-84.



Source: U.S. Department of Agriculture.

Figure 3.--Annual inflation noted in major industrial areas, 1977-84.



Source: U.S. Department of Agriculture.

Agriculture trade patterns and shifts

World trade in agriculture increased from $204 billion in 1979 to $233 billion in 1980 and 1981 (table 24). Trade decreased in 1982 and 1983 to $208 billion, reflecting the decline in world economic activity in the early 1980's and austerity programs undertaken by many of the developing countries that slashed imports in order to pay off accumulated debt.

Volume and value of world agricultural trade

During 1979-83, the value of world agricultural trade, as reported by the United Nations, increased from an index (1974-76=100) of 156 in 1979 to a peak of 181, or by 16 percent, in 1980 (table 25). Trade decreased over the next 2 years by 12 percent, to an index of 159 in 1983. The developing countries suffered a 10 percent decline in the value of their trade during 1979-83, from an index of 169 in 1980 to 152 in 1983. During the same period, the developing countries' volume of exports increased 11 percent from an index of 114 in 1979 and 1980 to 127 in 1983 (table 26). The developed countries during the same period, however, experienced both an increase in volume and value of trade. The value of agriculture trade increased from an index of 157 in 1979 to 190 in 1981, or by 21 percent. Exports of the developed countries declined by 14 percent in 1982 and 1983 to an index of 163. The volume of agriculture exports by the developed countries followed a trend similar to that for value, but the changes were not of as great a magnitude. The index increased 13 percent from 129 in 1979 to 146 in 1981 before declining 3 percent to an index of 142 in 1983.

Low-value and high-value trade in world agricultural exports

World trade in high-value farm products (HVP's) 1/ was estimated to have accounted for over one-half of the world trade in agricultural products in 1984, up substantially from its share in the 1970's. 2/ According to a USDA study, imports of HVP's grew by $7 million to $10 billion per year over the 1970's to match and eventually surpass imports of the low-value products that traditionally dominated agricultural trade. The key to this shift in the composition of agricultural trade was increased affluence, which lead to many countries trying to upgrade and diversify diets.

1/ HVP's include semiprocessed products, highly processed products, and high-value unprocessed products. All other products are considered low-value products. This definition conforms to the compromise definition adopted by the Economic Research Service and the Foreign Agricultural Service of the U.S. Department of Agricurture.

2/ U.S. Department of Agriculture, High-value Agricultural Exports: U.S. Opportunities in the 1980's U.S. Agricultural Economic Report 188, Sept. 1983.

Table 24.--Agricultural products: World exports, by selected leading commodities, 1979-83

(In billions of dollars)

Commodity	1979	1980	1981	1982	1983
Animal products:					
Meat, fresh, chilled or frozen	15.6	17.3	17.9	16.5	15.9
Meat, prepared or preserved	2.3	2.5	2.3	2.3	2.3
Milk	4.0	4.9	5.0	5.1	4.6
Butter	2.9	3.5	3.9	3.5	3.0
Cheese	3.8	4.1	4.1	4.1	3.9
Total	28.6	32.3	33.2	31.5	29.7
Cereals (grain):					
Wheat and flour	13.3	18.7	20.0	18.1	17.9
All other grain	17.3	22.0	24.1	18.0	17.8
Total	30.6	40.7	44.1	36.1	35.7
Oilseeds and products:					
Soybeans	6.9	7.1	7.4	7.0	6.8
Oilseed meals	4.7	5.4	6.2	5.4	6.3
Fats and oils	1.4	1.3	1.2	1.1	1.0
Total	13.0	13.8	14.8	13.5	14.1
Tobacco	3.8	3.8	4.4	4.6	4.2
Cotton and linters	6.7	7.8	7.4	6.3	6.6
Tropical products:					
Sugar	9.1	14.7	14.8	11.3	10.6
Coffee	12.1	12.5	8.6	9.3	9.6
Cocoa beans	3.3	2.9	2.2	2.0	2.1
Oranges, fresh	1.9	2.0	1.8	1.8	1.7
Bananas, fresh	1.2	1.3	1.4	1.5	1.3
Total	27.6	33.4	28.8	25.9	25.3
Grand total	110.3	131.8	132.7	117.9	115.6
Total of all agricultural products	204.1	232.9	232.5	212.1	207.5

Source: Compiled from official statistics of the United Nations.

Table 25.—Agricultural products: World export value, by principal regions, 1979-83

Regions	1979	1980	1981	1982	1983
	1974-76 = 100				
Developed market economies:					
North America	148	181	191	164	162
United States	156	185	194	164	162
Western Europe	178	206	202	189	182
Oceania	134	176	188	173	147
Other countries	130	182	185	136	106
Subtotal	160	192	196	176	168
Developing market economies:					
Africa	147	148	123	115	113
Latin America	159	176	171	150	165
Near East	124	136	156	149	156
Far East	167	191	188	163	164
Other countries	219	217	160	140	146
Subtotal	156	172	165	147	154
Centrally planned market economies:					
Asian	119	135	126	122	126
Eastern Europe and the U.S.S.R	132	139	135	127	112
Subtotal	128	137	132	126	116
All developed countries 1/	157	188	190	171	163
All developing countries 1/	154	169	162	145	152
Grand total	156	181	180	162	159

1/ Index includes non-market economies.

Source: Compiled from official statistics of the Food and Agriculture Organization (FAO) of the United Nations and of the U.S. Department of Agriculture.

Table 26.—Agricultural products: World export volume, by principal regions, 1979-83

Regions	1979	1980	1981	1982	1983
	1974-76 = 100				
Developed market economies:					
North America	138	156	157	152	147
United States	146	161	161	151	143
Western Europe	131	141	151	150	156
Oceania	116	137	126	126	121
Other countries	109	122	133	120	90
Subtotal	131	146	150	148	147
Developing market economies:					
Africa	87	87	88	90	89
Latin America	124	119	129	127	139
Near East	93	94	110	118	126
Far East	125	133	139	147	141
Other countries	135	136	134	132	128
Subtotal	115	115	122	124	129
Centrally planned market economies:					
Asian	101	103	92	100	107
Eastern Europe and the U.S.S.R	99	100	101	101	96
Subtotal	100	101	98	101	99
All developed countries	129	142	146	143	142
All developing countries	114	114	120	123	127
Grand total	123	132	137	136	137

Source: Compiled from official statistics of the Food and Agriculture Organization (FAO) of the United Nations and of the U.S. Department of Agriculture.

Note.—The volume index is based upon 1,000 metric tons.

The effect of increased affluence and changes in diet can be seen in the countries that account for the bulk of the imported HVP's. In 1980, the European Community, the United States, Japan, and Canada accounted for nearly two-thirds of the HVP imports. However, their share was down from that in 1970, when the developed countries accounted for 77 percent of the HVP imports. This shift occurred as a result of the developing countries purchases of HVP's outpacing those of the developed countries.

The increased purchases by the developing countries reflects the desire of many countries (at both the political and consumer level) to upgrade diets, diversify diets, and provide the semiprocessed inputs needed to operate final processing industries. These factors tend to make HVP demand extremely income elastic. Elasticities of demand for HVP appear to be in the range of +0.5 to +2 compared with a range of -0.1 to +0.5 for low-value farm products. 1/

According to the USDA study, semiprocessed products have accounted for about one-half of the HVP traded, and the developed countries have been the largest importers. Although this commodity grouping and country grouping will continue to dominate HVP trade, the HVP trade is shifting toward the highly processed and high-value bulk products. It is also anticipated that the developing countries, in particular the middle-income countries and the centrally planned economies, will expand their purchases of HVP faster than the developed countries.

Tables 27-31 show the changes in agricultural exports between low-value and high-value products from 1979 to 1983 for the United States and seven other major agricultural suppliers. 2/ In general, total agricultural exports by the eight suppliers (including the United States) increased during 1979-83; during this period, HVP's accounted for 52 to 54 percent of the eight suppliers agricultural trade.

From 1979 to 1982, agricultural exports by the eight suppliers increased from $87 billion in 1979 to $111 billion in 1982. Data were available for only six of the suppliers in 1983. 3/ For those six suppliers, agricultural exports increased from less than $83 billion in 1982 to over $84 billion 1983.

During 1979-83, U.S. agricultural exports increased from $35 billion in 1979 to $44 billion in 1981 and then declined to $37 billion in 1983. During 1979-82, the U.S. share of agricultural exports by the group of eight major suppliers declined from 41 to 39 percent. In 1983, the U.S. share of the group of six suppliers declined to 44 percent compared with a 46-percent share in 1982. LVP's accounted for nearly all of the decline in U.S. export value over the period. The U.S. share of LVP exports by the group of eight suppliers declined from 58 percent in 1979 to 55 percent in 1982. The U.S. share of LVP agricultural exports by the group of six suppliers declined from 67 percent in 1982 to 62 percent in 1983. The United States lost LVP market share to Canada, Brazil, and the EC-10.

1/ The income elasticities of demand were cited by the U.S. Department of Agriculture High Value Agricultural Exports: U.S. Opportunities in the 1980's. U.S. Ag. Econ. Report No. 188, Sept. 1983, p. 19.

2/ These suppliers include Argentina, Australia, Brazil, Canada, EC-10, New Zealand, and Spain.

3/ Brazil, Canada, EC-10, New Zealand, Spain, and the United States.

Table 27.—Agricultural exports, by selected suppliers, by major U.S. markets, and by processing stages, 1979

(In millions of dollars)

Major U.S. markets and processing stage	United States	EC-10	Argentina	Australia	Brazil	Canada	New Zealand	Spain
EC-10:								
Low value	4,788.1	-	991.1	561.0	1,196.4	835.0	397.4	50.3
High value	3,008.9	-	1,199.2	504.7	1,547.6	314.5	776.6	2,044.8
Total	7,797.0	-	2,190.3	1,065.7	2,744.0	1,149.5	1,174.0	2,095.1
Japan:								
Low value	3,798.5	66.2	238.8	1,041.4	109.3	721.8	94.7	1.3
High value	1,499.9	673.8	57.1	676.5	85.5	228.3	215.6	28.6
Total	5,298.4	740.0	295.9	1,717.9	194.8	950.1	310.3	29.9
Mexico:								
Low value	625.8	1/	40.7	1/	.1	2.8	1/	1/
High value	399.8	1/	1/	1/	1/	1/	5.4	1/
Total	1,025.6	1/	40.7	1/	.1	2.8	5.4	1/
Canada:								
Low value	357.1	35.9	1/	73.5	8.6	-	6.8	1/
High value	1,306.3	353.5	1/	115.9	51.8	-	83.0	35.6
Total	1,663.4	389.4	1/	189.4	60.4	-	89.8	35.6
U.S.S.R.:								
Low value	2,739.7	49.5	259.7	447.6	158.7	369.9	108.9	0
High value	115.2	545.8	106.6	63.1	56.8	.6	87.7	62.8
Total	2,854.9	595.3	366.3	510.7	215.5	370.5	196.6	62.8
Republic of Korea:								
Low value	1,176.5	1/	1/	146.6	1/	10.4	14.6	-
High value	258.2	1/	1/	109.8	11.2	56.3	28.3	1/
Total	1,434.7	1/	1/	256.4	11.2	66.7	42.9	1/
Taiwan:								
Low value	944.7	1/	30.6	105.6	2.1	3.8	10.2	1/
High value	128.1	1/	1/	67.2	1/	22.5	18.5	1/
Total	1,072.8	1/	30.6	172.8	2.1	26.3	28.7	1/
Spain:								
Low value	797.8	40.3	281.0	13.8	205.9	16.0	3.0	-
High value	247.4	561.2	76.9	-	49.6	10.6	13.2	-
Total	1,045.2	601.5	357.9	13.8	255.5	26.6	16.2	-
Egypt:								
Low value	300.9	89.9	1/	246.6	13.7	4.2	6.0	1/
High value	313.7	394.3	86.3	-	22.9	2.9	1/	5.5
Total	614.6	484.2	86.3	246.6	36.6	7.1	6.0	5.5
Venezuela:								
Low value	207.8	-	8.6	1/	1/	1/	1/	1/
High value	256.7	140.0	85.7	1/	1/	9.4	6.3	18.3
Total	464.5	140.0	94.3	1/	1/	9.4	6.3	18.3
United States:								
Low value	-	127.0	48.6	75.2	760.2	90.8	27.5	3.7
High value	-	1,901.4	211.0	1,096.4	676.7	828.0	573.4	180.9
Total	-	2,028.4	259.6	1,171.6	1,436.9	918.8	600.9	184.6
World:								
Low value	23,021.5	2,178.9	2,816.7	4,370.9	3,319.6	3,312.1	867.1	116.2
High value	12,382.4	17,080.3	2,769.7	3,923.1	3,756.2	1,933.6	2,314.6	3,244.1
Total	35,403.9	19,259.2	5,586.4	8,294.0	7,075.8	5,245.7	3,181.7	3,360.3

1/ Not available.

Source: Compiled from official statistics of the United Nations.

Table 28.--Agricultural exports, by selected suppliers, by major U.S. markets, and by processing stages, 1980

(In millions of dollars)

Major U.S. markets and processing stage	United States	EC-10	Argentina	Australia	Brazil	Canada	New Zealand	Spain
EC-10:								
Low value	5,729.1	-	587.6	598.5	1,397.4	728.9	392.7	47.2
High value	3,833.5	-	1,029.8	395.8	1,842.4	366.2	744.1	2,008.8
Total	9,562.6	-	1,619.4	994.3	3,239.8	1,095.1	1,136.8	2,056.0
Japan:								
Low value	4,695.4	52.7	64.8	1,189.1	162.5	680.9	88.8	.6
High value	1,467.2	577.3	49.9	601.8	107.3	217.7	215.6	25.6
Total	6,162.6	630.0	114.7	1,790.9	269.8	898.6	304.4	26.2
Mexico:								
Low value	1,797.8	1/	11.7	1/	12.2	29.2	1/	1/
High value	637.2	1/	1/	1/	1/	1/	33.1	1/
Total	2,435.0	1/	11.7	1/	12.2	29.2	33.1	1/
Canada:								
Low value	469.1	42.5	1/	176.4	27.0	-	7.3	1/
High value	1,406.0	368.5	1/	112.8	1/	-	90.6	38.1
Total	1,875.1	411.0	1/	289.2	27.0	-	97.9	38.1
U.S.S.R.:								
Low value	985.3	274.0	1,318.1	952.6	240.5	1,108.7	98.6	5.9
High value	61.8	1,295.2	263.5	78.6	47.3	.8	123.1	67.1
Total	1,047.1	1,569.2	1,581.6	1,031.2	287.8	1,109.5	221.7	73.0
Republic of Korea:								
Low value	1,148.7	1/	1/	172.6	1/	4.2	18.2	1/
High value	289.3	1/	1/	20.1	4.4	30.1	17.4	1/
Total	1,438.0	1/	1/	192.7	4.4	34.3	35.6	1/
Taiwan:								
Low value	927.6	1/	12.6	116.4	1.9	10.7	15.6	1/
High value	163.3	1/	1/	62.2	1/	26.2	19.1	1/
Total	1,090.9	1/	12.6	178.6	1.9	36.9	34.7	1/
Spain:								
Low value	1,083.1	130.2	92.5	15.0	393.1	1.8	6.0	-
High value	186.5	492.1	36.9	1/	26.8	14.4	10.8	-
Total	1,269.6	622.3	129.4	15.0	419.9	16.2	16.8	-
Egypt:								
Low value	377.8	280.5	1/	319.1	85.7	2.7	6.6	1/
High value	407.4	603.0	26.1	1/	56.8	6.7	1/	4.8
Total	785.2	883.5	26.1	319.1	142.5	9.4	6.6	4.8
Venezuela:								
Low value	320.0	1/	41.9	1/	1/	1/	1/	1/
High value	365.0	216.1	14.6	1/	1/	11.8	11.0	27.1
Total	685.0	216.1	56.5	1/	1/	11.8	11.0	27.1
United States:								
Low value	-	169.5	186.8	222.4	1,144.4	97.4	35.9	6.4
High value	-	1,949.1	204.7	903.9	633.3	934.2	559.8	182.5
Total	-	2,118.6	391.5	1,126.3	1,777.7	1,031.6	595.7	188.9
World:								
Low value	28,104.4	3,644.3	3,099.3	5,747.9	4,644.2	4,538.9	928.3	124.6
High value	14,243.8	21,376.5	2,480.3	3,603.7	4,686.2	2,207.9	2,641.7	3,371.3
Total	42,348.3	25,020.8	5,579.6	9,351.6	9,330.4	6,746.8	3,570.0	3,495.9

1/ Not available.

Source: Compiled from official statistics of the United Nations.

Table 29.—Agricultural exports, by selected suppliers, by major U.S. markets, and by processing stages, 1981

(In millions of dollars)

Major U.S. markets and processing stage	United States	EC-10	Argentina	Australia	Brazil	Canada	New Zealand	Spain
EC-10:								
Low value	5,696.8	-	504.7	570.6	1,023.8	785.9	313.2	43.1
High value	3,708.4	-	886.3	314.5	2,307.3	368.3	737.8	1,743.3
Total	9,405.2	-	1,391.0	885.1	3,331.1	1,154.2	1,051.0	1,786.4
Japan:								
Low value	4,907.4	59.8	44.8	1,109.8	115.8	869.6	84.9	.4
High value	1,733.9	757.9	47.8	595.0	121.2	276.3	282.8	26.1
Total	6,641.3	817.7	92.6	1,704.8	237.0	1,145.9	367.7	26.5
Mexico:								
Low value	1,690.2	1/	181.0	1/	60.0	31.1	1/	1/
High value	691.8	1/	1/	1/	1/	1/	22.0	1/
Total	2,382.0	1/	181.0	1/	60.0	31.1	22.0	1/
Canada:								
Low value	432.0	54.9	1/	148.1	18.2	-	7.4	1/
High value	1,587.7	356.1	1/	72.9	52.8	-	77.9	35.1
Total	2,019.7	411.0	1/	221.0	71.0	-	85.3	35.1
U.S.S.R.:								
Low value	1,562.8	387.0	2,604.5	584.1	262.8	1,376.2	79.1	105.9
High value	102.2	1,513.8	298.5	106.5	335.4	98.7	150.2	94.8
Total	1,665.0	1,900.8	2,903.0	690.6	598.2	1,474.9	229.3	200.7
Republic of Korea:								
Low value	1,750.0	1/	1/	289.1	1/	7.0	22.7	1/
High value	236.9	1/	1/	81.9	3.6	40.7	30.9	1/
Total	1,986.9	1/	1/	371.0	3.6	47.7	53.6	1/
Taiwan:								
Low value	968.5	1/	10.7	126.9	6.1	2.1	8.4	1/
High value	169.7	1/	1/	95.1	1/	23.5	31.3	1/
Total	1,138.2	1/	10.7	222.0	6.1	25.6	39.7	1/
Spain:								
Low value	1,222.1	67.8	104.0	15.9	240.2	22.4	3.9	1/
High value	156.7	478.2	29.4	1/	35.3	10.6	8.0	1/
Total	1,378.8	546.0	133.4	15.9	275.5	33.0	11.9	1/
Egypt:								
Low value	558.7	47.6	1/	331.8	84.1	26.2	9.4	1/
High value	432.0	840.7	67.0	1/	136.5	7.6	-	30.8
Total	990.7	888.3	67.0	331.8	220.6	33.8	9.4	30.8
Venezuela:								
Low value	323.8	1/	34.8	1/	98.0	1/	1/	1/
High value	516.3	324.1	6.9	1/	1/	20.6	14.9	24.9
Total	840.1	324.1	41.7	1/	98.0	20.6	14.9	24.9
United States:								
Low value	-	163.5	209.0	400.3	816.3	147.2	27.7	3.7
High value	-	2,096.6	169.1	593.4	718.6	1,010.4	507.4	187.6
Total	-	2,260.1	378.1	993.7	1,534.9	1,157.6	535.1	191.3
World:								
Low value	29,425.0	4,107.1	4,211.6	5,473.6	3,509.0	5,020.3	815.0	320.0
High value	15,082.7	22,701.8	2,209.5	3,306.1	6,134.3	2,491.6	2,794.5	3,099.3
Total	44,507.7	26,808.9	6,421.1	8,779.7	9,643.3	7,511.9	3,609.5	3,419.3

1/ Not available.

Source: Compiled from official statistics of the United Nations.

Table 30.--Agricultural exports, by selected suppliers, by major U.S. markets, and by processing stages, 1982

(In millions of dollars)

Major U.S. markets and processing stage	United States	EC-10	Argentina	Australia	Brazil	Canada	New Zealand	Spain
EC-10:								
Low value	5,056.6	-	328.3	552.1	1,113.3	689.1	279.6	42.7
High value	3,570.0	-	863.6	338.9	1,729.8	310.1	841.5	1,721.9
Total	8,626.6	-	1,191.9	891.0	2,843.1	999.2	1,121.1	1,764.6
Japan:								
Low value	4,000.4	75.7	152.1	900.6	140.7	735.4	89.6	.5
High value	1,618.0	562.0	43.1	585.4	93.3	305.3	253.7	26.0
Total	5,618.4	637.7	195.2	1,486.0	234.0	1,040.7	343.3	26.5
Mexico:								
Low value	677.3	1/	68.5	1/	42.3	10.6	1/	1/
High value	446.5	1/	1/	1/	1/	1/	27.7	1/
Total	1,123.8	1/	68.5	1/	42.3	10.6	27.7	1/
Canada:								
Low value	334.4	42.9	1/	87.6	32.5	-	6.0	1/
High value	1,505.8	384.2	1/	81.1	52.0	-	78.4	38.8
Total	1,840.2	427.1	1/	168.7	84.5	-	84.4	38.8
U.S.S.R.:								
Low value	1,793.5	307.8	1,343.4	642.0	183.8	1,539.2	64.7	6.8
High value	56.9	1,098.9	200.9	18.1	309.4	17.8	236.0	62.1
Total	1,850.4	1,406.7	1,544.3	660.1	493.2	1,557.0	300.7	68.9
Republic of Korea:								
Low value	1,317.2	1/	1/	170.9	1/	8.3	17.6	2/
High value	248.9	1/	1/	130.7	12.2	51.2	22.9	1/
Total	1,566.1	1/	1/	301.6	12.2	59.5	40.5	1/
Taiwan:								
Low value	975.2	1/	11.8	125.5	7.2	34.9	14.3	1/
High value	172.8	1/	1/	108.1	1/	33.6	48.8	1/
Total	1,148.0		11.8	233.6	7.2	68.5	63.1	1/
Spain:								
Low value	1,398.4	35.5	126.1	34.0	185.9	40.1	2.9	1/
High value	156.8	469.0	19.4	1/	40.8	9.7	9.1	1/
Total	1,555.2	504.5	145.5	34.0	226.7	49.8	12.9	1/
Egypt:								
Low value	470.5	39.9	1/	347.7	63.7	22.5	5.2	1/
High value	357.3	576.2	96.8	1/	75.2	1.7	1/	29.7
Total	827.8	616.1	96.8	347.7	138.9	24.2	5.2	29.7
Venezuela:								
Low value	390.3	1/	19.8	1/	93.6	1/	1/	1/
High value	391.5	224.6	11.4	1/	1/	19.6	38.0	20.3
Total	781.8	224.6	31.2	1/	93.6	19.6	38.0	20.3
United States:								
Low value	-	151.2	77.4	84.2	717.7	157.7	20.8	3.6
High value	-	2,266.8	185.4	712.6	679.1	1,253.6	540.9	217.2
Total	-	2,418.0	262.8	796.8	1,396.8	1,411.3	561.7	220.8
World:								
Low value	24,408.1	3,026.6	2,754.7	5,056.9	3,297.3	5,122.2	712.9	105.6
High value	13,391.9	19,789.1	2,155.7	3,279.0	4,674.1	2,594.8	2,903.2	2,951.4
Total	37,800.0	22,815.7	4,910.4	8,335.9	7,971.4	7,717.0	3,616.1	3,057.0

1/ Not available.
2/ Less than $0.5 million.

Source: Compiled from official statistics of the United Nations.

Table 31.--Agricultural exports, by selected suppliers, by major U.S. markets, and by processing stages, 1983

(In millions of dollars)

Major U.S. markets and processing stage	United States	EC-10	Argentina	Australia	Brazil	Canada	New Zealand	Spain
EC-10:								
Low value	4,019.2	-	1/	1/	1,584.2	705.8	273.4	52.5
High value	3,572.6	-	1/	1/	2,931.5	236.4	652.9	1,597.9
Total	7,591.8	-	1/	1/	4,515.7	942.2	926.3	1,650.4
Japan:								
Low value	4,650.5	78.4	1/	1/	184.2	807.9	77.6	.6
High value	1,669.9	568.4	1/	1/	122.2	279.7	279.1	22.9
Total	6,320.4	646.8	1/	1/	306.4	1,087.6	356.7	23.5
Mexico:								
Low value	1,504.7	1/	1/	1/	28.5	72.4	1/	1/
High value	344.6	1/	1/	1/	1/	1/	19.3	1/
Total	1,849.3	1/	1/	1/	28.5	72.4	19.3	1/
Canada:								
Low value	337.0	48.8	1/	1/	40.6	-	3.9	2/
High value	1,528.4	407.2	1/	1/	73.1	-	84.4	34.9
Total	1,865.4	456.0	1/	1/	113.7	-	88.3	34.9
U.S.S.R.:								
Low value	1,421.4	621.1	1/	1/	249.1	1,315.8	84.4	22.9
High value	35.7	993.1	1/	1/	596.8	19.6	141.4	79.4
Total	1,457.1	1,614.2	1/	1/	845.9	1,335.4	225.8	102.3
Republic of Korea:								
Low value	1,525.3	1/	1/	1/	-	20.8	21.5	2/
High value	296.8	1/	1/	1/	38.4	42.5	42.5	1/
Total	1,822.1	1/	1/	1/	38.4	63.3	64.0	2/
Taiwan:								
Low value	1,092.4	1/	1/	1/	25.5	22.7	17.2	1/
High value	217.2	1/	1/	1/	-	32.1	58.5	1/
Total	1,309.6		1/	1/	25.5	54.8	75.7	1/
Spain:								
Low value	1,110.9	182.5	1/	1/	325.9	48.4	2.5	-
High value	129.8	467.0	1/	1/	112.7	8.9	14.3	-
Total	1,240.7	649.5	1/	1/	438.6	57.3	16.8	-
Egypt:								
Low value	528.5	183.8	1/	1/	25.0	21.2	8.4	2/
High value	444.2	562.0	1/	1/	97.5	11.9	-	40.1
Total	972.7	745.8	1/	1/	122.5	33.1	8.4	40.1
Venezuela:								
Low value	352.9	1/	1/	1/	50.4	1/	1/	1/
High value	276.7	122.9	1/	1/	1/	18.9	27.9	8.2
Total	629.6	122.9	1/	1/	50.4	18.9	27.9	8.2
United States:								
Low value	-	159.2	1/	1/	1,407.4	157.9	31.4	3.7
High value	-	2,501.3	1/	1/	925.0	1,369.4	526.1	235.1
Total	-	2,660.5	1/	1/	2,332.4	1,527.3	557.5	238.8
World:								
Low value	23,934.3	3,286.8	1/	1/	4,835.8	5,383.4	759.2	135.9
High value	13,119.5	18,497.4	1/	1/	6,377.1	2,511.6	2,722.0	2,765.0
Total	37,053.8	21,784.3	1/	1/	11,212.9	7,895.0	3,481.2	2,900.9

1/ Not available.
2/ Less than 0.5 million dollars.

Source: Compiled from official statistics of the United Nations.

Canada had the largest overall rise in its exports of LVP (in terms of value) during 1979-83. Such exports increased by over $2 billion. Brazil had the next largest increase at $1.5 billion, and the EC-10 had increased exports totaling $1.1 billion. All of the rise in Canada's exports of LVP's was in the grain and feed sector. Likewise, all of the rise in the EC-10's exports of LVP's was in the grain and feed sector. Brazil, on the other hand, had nearly all of its rise of LVP's in the horticultural and tropical products sector.

The U.S. share of the HVP's market was virtually unchanged during 1979-82 at 26 percent. In 1983, the U.S. share was 29 percent for the group of six exporters, unchanged from the 29 percent of the group that it enjoyed in 1982.

Agricultural exports by world marketing regions

Tables 32-39 show agricultural exports by the eight major suppliers to 13 major world marketing regions. The United States was able to retain or increase its market share in most of the regions (e.g., Far East, North America, and South America) during 1979-83. Notable exceptions include U.S. trade with Eastern Europe, the U.S.S.R., and the EC. In 1979, the United States exported $4.8 billion in agricultural products to Eastern Europe and the U.S.S.R. and accounted for 48 percent of the agricultural products exported to this area by the group of eight suppliers. In 1982, U.S. exports to this region declined to $2.7 billion, and the U.S. share of the eight major suppliers decreased to 24 percent. Data available for six major suppliers in 1983 indicate that the United States continued to lose market share in that year.

U.S. trade with the EC totaled $7.8 billion in 1979 and accounted for 45 percent of the EC imports from the major world suppliers in that year. U.S. trade with the EC-10 increased to $8.6 billion in 1982, and the U.S. share of the EC-10 imports increased to 52 percent. However, U.S. trade with the EC-10 decreased dramatically in 1983, to $7.6 billion. The U.S. share of EC-10 imports from four major suppliers 1/ decreased from 73 to 57 percent. All of the loss in market share was accounted for by low-value products.

Grains

Overview

World grain production rose from 1,423 million metric tons in 1979/80 to 1,543 million metric tons in 1982/83 but then dropped to 1,486 million tons in 1983/84 (table 40). Production for the 1984/85 crop year is forecast at a record 1,613 million metric tons. Wheat and rice were responsible for most of the increase in production over the period, while coarse grains accounted for the steep decline in 1983/84.

1/ Brazil, Canada, New Zealand, and the United States.

Table 32.--Argentina's exports of total agricultural products. by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
	Low value				
Far East	468	241	141	266	2/
EC-10	991	588	505	328	2/
Non-EC Western Europe	322	122	134	147	2/
Eastern Europe/U.S.S.R	323	1,339	2,622	1,352	2/
North America	90	201	397	146	2/
South America	473	453	247	274	2/
North Africa	32	20	19	44	2/
Middle East	55	70	82	169	2/
South Asia	2	1/	1/	6	2/
Other Africa	35	28	27	18	2/
Transship/not specified	-	-	-	-	2/
Caribbean	24	28	34	3	2/
Central America	2	10	5	2	2/
Australia/Oceania	1/	1/	1/	1/	2/
Total	2,817	3,099	4,212	2,755	2/
	High value				
Far East	77	78	77	60	2/
EC-10	1,199	1,030	886	864	2/
Non-EC Western Europe	154	106	94	83	2/
Eastern Europe/U.S.S.R	163	351	379	236	2/
North America	234	225	183	194	2/
South America	612	430	344	359	2/
North Africa	139	81	84	166	2/
Middle East	127	112	74	112	2/
South Asia	7	5	3	2	2/
Other Africa	34	31	52	38	2/
Transship/not specified	-	-	-	-	2/
Caribbean	19	30	34	40	2/
Central America	4	1	1	1	2/
Australia/Oceania	1	1	1/	1	2/
Total	2,770	2,480	2,210	2,156	2/
	Total				
Far East	545	319	217	326	2/
EC-10	2,190	1,617	1,391	1,192	2/
Non-EC Western Europe	476	228	228	229	2/
Eastern Europe/U.S.S.R	486	1,690	3,001	1,588	2/
North America	324	426	580	341	2/
South America	1,085	883	591	633	2/
North Africa	171	100	103	209	2/
Middle East	182	182	156	281	2/
South Asia	10	5	3	9	2/
Other Africa	69	59	78	56	2/
Transship/not specified	-	-	-	-	2/
Caribbean	43	58	68	43	2/
Central America	5	11	6	3	2/
Australia/Oceania	1	1	1/	1	2/
Grand total	5,586	5,580	6,421	4,910	2/

1/ Less than 0.5 million dollars.
2/ Not available.

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 33.--Australia's exports of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
	Low value				
Far East	2,069	2,495	2,420	2,127	2/
EC-10	561	599	571	552	2/
Non-EC Western Europe	48	27	33	65	2/
Eastern Europe/U.S.S.R	630	1,110	765	784	2/
North America	162	415	565	183	2/
South America	14	36	28	28	2/
North Africa	249	320	335	359	2/
Middle East	380	557	523	638	2/
South Asia	197	75	114	221	2/
Other Africa	24	24	37	32	2/
Transship/not specified	1/	10	1	1/	2/
Caribbean	1/	1/	-	1/	2/
Central America	1/	1/	-	1/	2/
Australia/Oceania	38	78	81	68	2/
Total	4,371	5,748	5,474	5,057	2/
	High value				
Far East	1,204	1,056	1,193	1,226	2/
EC-10	505	396	315	339	2/
Non-EC Western Europe	71	54	36	47	2/
Eastern Europe/U.S.S.R	151	133	145	47	2/
North America	1,215	1,020	668	795	2/
South America	33	26	21	19	2/
North Africa	31	48	46	36	2/
Middle East	371	497	505	446	2/
South Asia	36	42	51	44	2/
Other Africa	38	45	55	43	2/
Transship/not specified	4	4	4	9	2/
Caribbean	26	24	21	25	2/
Central America	4	3	1	1/	2/
Australia/Oceania	234	256	245	203	2/
Total	3,923	3,604	3,306	3,279	2/
	Total				
Far East	3,273	3,552	3,614	3,353	2/
EC-10	1,066	994	885	891	2/
Non-EC Western Europe	119	81	69	112	2/
Eastern Europe/U.S.S.R	781	1,243	911	831	2/
North America	1,376	1,435	1,233	978	2/
South America	47	63	48	47	2/
North Africa	280	368	381	394	2/
Middle East	751	1,054	1,028	1,084	2/
South Asia	234	118	165	264	2/
Other Africa	62	69	92	75	2/
Transship/not specified	5	15	5	9	2/
Caribbean	26	24	21	25	2/
Central America	4	3	1	1/	2/
Australia/Oceania	271	334	326	270	2/
Grand total	8,294	9,352	8,780	8,336	2/

1/ Less than 0.5 million dollars.
2/ Not available.

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 34.--Brazil's exports of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
			Low value		
Far East	151	193	182	213	321
EC-10	1,196	1,397	1,024	1,113	1,584
Non-EC Western Europe	525	768	519	495	719
Eastern Europe/U.S.S.R	433	529	465	310	414
North America	769	1,184	895	792	1,477
South America	117	118	194	189	134
North Africa	42	189	144	106	112
Middle East	61	89	68	43	33
South Asia	1/	158	2	1	6
Other Africa	18	9	10	21	24
Transship/not specified	-	-	-	-	0
Caribbean	2	5	4	5	7
Central America	1/	1/	1	2	1/
Australia/Oceania	4	4	4	5	5
Total	3,320	4,644	3,509	3,297	4,836
			High value		
Far East	226	234	325	237	262
EC-10	1,548	1,842	2,307	1,730	2,932
Non-EC Western Europe	124	132	129	106	179
Eastern Europe/U.S.S.R	429	584	964	645	936
North America	733	699	792	767	1,003
South America	183	228	251	177	116
North Africa	39	155	269	150	141
Middle East	200	526	647	586	436
South Asia	210	187	314	156	216
Other Africa	49	71	91	61	89
Transship/not specified	-	1/	1/	1/	1/
Caribbean	6	8	16	20	11
Central America	2	2	5	1	3
Australia/Oceania	9	17	24	36	52
Total	3,756	4,686	6,134	4,674	6,377
			Total		
Far East	377	428	506	450	583
EC-10	2,744	3,240	3,331	2,843	4,516
Non-EC Western Europe	649	901	648	601	898
Eastern Europe/U.S.S.R	862	1,114	1,429	955	1,350
North America	1,502	1,883	1,686	1,560	2,480
South America	300	346	445	366	250
North Africa	81	344	413	256	253
Middle East	261	615	715	630	469
South Asia	210	345	316	158	222
Other Africa	67	80	101	82	113
Transship/not specified	-	1/	1/	1/	0
Caribbean	8	13	20	26	18
Central America	2	3	6	4	4
Australia/Oceania	13	21	28	42	57
Grand total	7,076	9,330	9,643	7,971	11,213

1/ Less than 0.5 million dollars.

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 35.--Canada's exports of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
			Low value		
Far East	1,110	1,177	1,493	1,407	1,659
EC-10	835	729	786	689	706
Non-EC Western Europe	51	24	54	93	76
Eastern Europe/U.S.S.R	560	1,375	1,653	1,838	1,515
North America	94	127	179	169	230
South America	129	377	224	249	292
North Africa	140	231	212	200	163
Middle East	152	179	101	172	319
South Asia	72	51	47	95	154
Other Africa	35	36	32	32	50
Transship/not specified	1	1	2	2	1
Caribbean	132	229	228	172	204
Central America	1/	3	5	1	4
Australia/Oceania	1	2	5	2	8
Total	3,312	4,539	5,020	5,122	5,383
			High value		
Far East	357	342	383	428	396
EC-10	315	366	368	310	236
Non-EC Western Europe	63	91	78	79	56
Eastern Europe/U.S.S.R	20	15	111	32	29
North America	864	999	1,149	1,335	1,382
South America	35	43	56	55	58
North Africa	34	54	61	141	133
Middle East	8	11	17	27	25
South Asia	49	71	43	13	22
Other Africa	20	28	23	14	23
Transship/not specified	-	-	-	-	-
Caribbean	147	164	170	126	117
Central America	6	8	8	16	15
Australia/Oceania	14	16	25	20	18
Total	1,934	2,208	2,492	2,595	2,512
			Total		
Far East	1,466	1,519	1,876	1,835	2,055
EC-10	1,150	1,095	1,154	999	942
Non-EC Western Europe	114	115	133	172	132
Eastern Europe/U.S.S.R	580	1,390	1,764	1,870	1,544
North America	958	1,126	1,327	1,503	1,612
South America	165	419	280	304	350
North Africa	174	285	273	341	296
Middle East	162	190	128	199	345
South Asia	121	121	91	108	176
Other Africa	54	64	55	46	74
Transship/not specified	1	1	2	2	1
Caribbean	279	393	398	298	321
Central America	7	11	13	17	19
Australia/Oceania	15	18	29	22	18
Grand total	5,246	6,747	7,512	7,717	7,895

1/ Less than 0.5 million.

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 36.--EC-10's exports (excluding intratrade) of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
	Low value				
Far East	104	99	296	264	256
EC-10	-	-	-	-	-
Non-EC Western Europe	489	695	627	459	550
Eastern Europe/U.S.S.R	582	1,144	1,318	739	1,015
North America	166	216	222	197	210
South America	47	17	33	25	21
North Africa	378	793	614	454	582
Middle East	145	366	577	415	306
South Asia	72	67	93	117	63
Other Africa	151	193	243	219	214
Transship/not specified	4	2	1	2	4
Caribbean	24	36	59	111	48
Central America	2	1	7	10	2
Australia/Oceania	15	16	17	16	16
Total	2,179	3,644	4,107	3,027	3,287
	High value				
Far East	1,378	1,228	1,420	1,273	1,343
EC-10	-	-	-	-	-
Non-EC Western Europe	4,069	4,411	4,090	3,834	3,689
Eastern Europe/U.S.S.R	1,471	2,480	2,962	2,010	1,717
North America	2,378	2,523	2,651	2,803	3,039
South America	479	690	715	485	336
North Africa	1,632	2,171	2,819	2,120	1,902
Middle East	2,525	3,804	3,836	3,410	3,225
South Asia	338	339	386	286	153
Other Africa	1,731	2,504	2,655	2,335	1,889
Transship/not specified	372	350	375	393	419
Caribbean	408	542	460	511	450
Central America	75	103	104	76	82
Australia/Oceania	225	232	229	255	252
Total	17,080	21,377	22,702	19,789	18,497
	Total				
Far East	1,482	1,327	1,716	1,537	1,599
EC-10	-	-	-	-	-
Non-EC Western Europe	4,558	5,106	4,717	4,293	4,239
Eastern Europe/U.S.S.R	2,054	3,623	4,280	2,749	2,732
North America	2,544	2,738	2,873	3,000	3,250
South America	527	677	747	510	357
North Africa	2,009	2,963	3,433	2,573	2,485
Middle East	2,670	4,170	4,413	3,825	3,532
South Asia	410	406	479	403	216
Other Africa	1,881	2,697	2,898	2,553	2,104
Transship/not specified	376	352	376	395	423
Caribbean	432	578	519	622	498
Central America	77	105	111	86	83
Australia/Oceania	240	249	246	270	268
Grand total	19,259	25,021	26,809	22,816	21,784

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 37.--New Zealand's exports of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
	Low value				
Far East	175	199	207	213	198
EC-10	397	393	313	280	273
Non-EC Western Europe	9	12	10	8	7
Eastern Europe/U.S.S.R	156	143	114	89	102
North America	35	44	37	28	36
South America	1/	1/	1/	1/	1/
North Africa	7	10	11	6	10
Middle East	32	64	57	19	65
South Asia	10	13	15	25	28
Other Africa	6	12	12	9	7
Transship/not specified	1/	1/	1/	1/	1/
Caribbean	1/	1/	1/	1/	1/
Central America	-	-	-	-	-
Australia/Oceania	39	38	40	36	34
Total	867	928	815	713	759
	High value				
Far East	448	529	626	615	619
EC-10	777	744	738	841	653
Non-EC Western Europe	34	32	26	24	31
Eastern Europe/U.S.S.R	91	131	153	239	145
North America	665	688	611	651	633
South America	35	44	55	87	62
North Africa	2	9	6	7	24
Middle East	78	229	317	210	307
South Asia	8	15	15	16	19
Other Africa	17	21	29	26	21
Transship/not specified	16	18	21	-	-
Caribbean	22	27	34	27	31
Central America	13	13	7	5	6
Australia/Oceania	110	142	156	155	172
Total	2,315	2,642	2,795	2,903	2,722
	Total				
Far East	623	728	833	828	817
EC-10	1,174	1,137	1,051	1,121	926
Non-EC Western Europe	43	45	36	32	38
Eastern Europe/U.S.S.R	247	274	267	328	247
North America	700	732	647	678	669
South America	35	44	55	87	62
North Africa	9	18	17	13	34
Middle East	110	293	374	228	371
South Asia	18	28	30	42	47
Other Africa	23	32	41	35	27
Transship/not specified	16	18	21	-	-
Caribbean	22	27	34	27	31
Central America	13	13	7	5	6
Australia/Oceania	149	181	196	192	206
Grand total	3,182	3,570	3,610	3,616	3,481

1/ Less than 0.5 million dollars.

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 38.--Spain's exports of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
	Low value				
Far East	3	2	15	2	2
EC-10	50	47	43	43	53
Non-EC Western Europe	12	19	31	16	12
Eastern Europe/U.S.S.R	1	8	191	11	33
North America	4	7	4	4	4
South America	1	2	2	1	1
North Africa	34	18	17	14	15
Middle East	5	5	6	8	9
South Asia	1/	1/	1/	1/	1/
Other Africa	3	5	6	4	6
Transship/not specified	1/	1/	1/	1/	1/
Caribbean	2	10	3	3	1/
Central America	1/	1/	1/	1/	1/
Australia/Oceania	1/	1/	1/	1/	1/
Total	116	125	320	106	136
	High value				
Far East	40	34	35	41	38
EC-10	2,045	2,009	1,743	1,722	1,598
Non-EC Western Europe	280	262	246	245	220
Eastern Europe/U.S.S.R	123	172	243	139	137
North America	230	235	241	261	271
South America	78	73	68	51	34
North Africa	218	296	222	174	169
Middle East	111	132	169	192	146
South Asia	6	13	7	5	35
Other Africa	63	92	82	78	72
Transship/not specified	23	23	13	10	1/
Caribbean	8	11	10	19	1/
Central America	4	5	4	4	5
Australia/Oceania	15	16	16	12	21
Total	3,244	3,371	3,099	2,951	2,765
	Total				
Far East	43	36	50	42	40
EC-10	2,095	2,056	1,786	1,765	1,650
Non-EC Western Europe	291	281	277	261	232
Eastern Europe/U.S.S.R	124	180	434	150	170
North America	234	242	246	265	275
South America	79	74	70	52	35
North Africa	252	314	239	188	184
Middle East	117	138	175	199	155
South Asia	6	13	7	5	35
Other Africa	66	97	88	82	78
Transship/not specified	23	23	14	10	1/
Caribbean	10	21	13	22	1/
Central America	4	5	4	4	5
Australia/Oceania	15	16	16	12	21
Grand total	3,360	3,496	3,419	3,057	2,901

1/ Less than 0.5 million dollars.

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 39.--United States' exports of total agricultural products, by processing stages and by major markets, 1979-83

(In millions of dollars)

Market	1979	1980	1981	1982	1983
	Low value				
Far East	7,645	10,229	10,553	8,817	8,726
EC-10	4,788	5,729	5,697	5,057	4,019
Non-EC Western Europe	1,517	2,041	2,333	2,446	2,224
Eastern Europe/U.S.S.R	4,101	2,542	1,715	2,332	1,880
North America	984	2,268	2,123	1,013	1,842
South America	1,110	1,689	1,728	1,445	1,463
North Africa	588	747	1,046	878	1,014
Middle East	655	551	852	650	798
South Asia	176	277	389	475	736
Other Africa	296	457	565	395	490
Transship/not specified	843	1,116	976	505	289
Caribbean	165	220	240	227	239
Central America	107	183	144	116	154
Australia/Oceania	47	57	63	52	60
Total	23,022	28,104	29,425	24,408	23,934
	High value				
Far East	3,009	3,833	3,708	3,570	3,573
EC-10	2,522	2,743	2,947	2,861	3,009
Non-EC Western Europe	1,737	2,077	2,315	1,993	1,917
Eastern Europe/U.S.S.R	1,120	1,082	1,158	991	990
North America	732	913	1,095	785	666
South America	404	565	621	482	548
North Africa	467	545	602	582	517
Middle East	601	576	579	462	400
South Asia	332	472	620	516	397
Other Africa	663	579	592	352	390
Transship/not specified	466	456	396	317	290
Caribbean	183	250	252	242	248
Central America	148	151	199	239	174
Australia/Oceania	-	-	-	-	-
Total	12,382	14,244	15,083	13,392	13,120
	Total				
Far East	10,167	12,972	13,500	11,678	11,735
EC-10	7,797	9,562	9,405	8,627	7,582
Non-EC Western Europe	2,720	4,345	4,438	3,006	3,760
Eastern Europe/U.S.S.R	2,118	2,617	2,911	2,909	2,624
North America	4,765	3,121	3,307	2,684	2,270
South America	1,842	2,601	2,823	2,230	2,128
North Africa	1,774	1,634	2,010	1,641	1,789
Middle East	992	1,312	1,667	1,360	1,562
South Asia	642	733	785	792	1,026
Other Africa	627	929	1,184	911	887
Transship/not specified	632	765	842	808	756
Caribbean	290	434	396	358	403
Central America	843	1,116	976	505	289
Australia/Oceania	194	208	262	292	235
Grand total	35,404	42,348	44,508	37,800	37,054

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to the totals shown.

Table 40.--World total grains supply and demand 1979/80-1984/85

(Millions of metric tons/hectares)

Year	Area harvested	Yield	Production	World trade 1/	Utilization: total 2/	Ending stocks 3/	Stocks as percent of utilization
	Million hectares	---Million metric tons---					
1979/80	706.3	2.01	1,423.1	193.2	1,446.8	197.1	13.6
1980/81	717.5	2.02	1,445.7	216.0	1,459.1	183.9	12.7
1981/82	728.3	2.06	1,497.5	210.8	1,462.7	219.0	15.0
1982/83	713.2	2.16	1,542.7	201.4	1,509.3	252.3	16.8
1983/84 4/	703.7	2.11	1,485.8	206.2	1,551.8	186.3	12.1
1984/85 5/	709.6	2.27	1,613.4	218.2	1,587.0	212.7	13.5

1/ Trade data as expressed in this table exclude intra-EC trade. Wheat is on a July/June basis. The trade year for coarse grains October/September.

2/ For countries for which stocks data are not available (excluding the USSR) utilization estimates represent "apparent" utilization, i.e. include annual stock level adjustments.

3/ Stocks data are based on an aggregate of differing local marketing years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude those such as the People's Republic of China and parts of Eastern Europe. World stock levels have been adjusted for estimated year-to-year changes in USSR grain stocks, but do not purport to include the absolute level of USSR grain stocks.

4/ Preliminary.

5/ Projection.

Source: U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (Grains, FG-1-95, January 1985).

Note.--"Stocks as percent of utilization" represent the ratio of marketing year ending stocks to total utilization.

World grain production is dominated by China, the United States, U.S.S.R., and the EC-10. These four typically account for about three-fifths of production. However, two of these four, China and the U.S.S.R., are major importers of grains and thus not competitors of the United States and other major grain exporters. World grain exports are dominated by the United States, with Argentina, Australia, Canada, and the EC-10 being the other primary exporters.

Grains account for about half of the international trade in agricultural products because they are a basic ingredient for both human and animal consumption and because they are more easily stored and transported than are other agricultural products. Global grain trade increased from 193 million metric tons in 1979/80 to 206 million metric tons in 1983/84, and is forecast to rise to nearly 218 million metric tons in 1984/85. World exports of grains have ranged from approximately 13 percent to 15 percent of world production during 1979/80 to 1983/84 and are forecast to be about 13.5 percent of production in 1984/85. Growth in world grain trade has been restrained the past 2 or 3 years by the economic factors cited previously; namely the sluggish expansion of the world economy, high real interest rates, large debt burdens in many developing countries, and a strong U.S. dollar.

In an environment of increasing world grain production and relatively steady or slightly declining world grain trade, the major grain producers and exporters are facing strong pressures to maintain or increase their shares of world trade. Wheat, corn (one of the coarse grains), and rice are the primary grains produced and traded in the world. Although total grain production does affect the demand for individual grains and some grains are more or less substitutable one for the other, the uses and markets for the major grains are different enough that each will be treated separately.

According to official USDA statistics, U.S. exports of all grains increased from about 102 million metric tons in 1979 to more than 112 million metric tons in 1981 before declining to less than 100 million metric tons in 1983 (table 41). However, figures for the first three quarters of 1984 indicate that exports are up significantly from the same period in 1983. In value terms, U.S. grain exports increased from $14.0 billion in 1979 to nearly $19.0 billion in 1981 and then declined to $11.7 billion in 1983.

U.S. imports of grains and grain products, while dwarfed by exports, have increased significantly during this period. Imports have risen from 22 thousand metric tons, with a value of $7 million, in 1979 to 582 thousand metric tons, with a value of $80 million, in 1983.

Wheat

Wheat, behind only corn and soybeans, is the third leading field crop produced in the United States in terms of value of production. Wheat is also important in U.S. trade; for four of the five years examined, wheat exports were more than $6 billion, about one-sixth of the total value of U.S. agricultural exports. Wheat is traded internationally more than any other grain, with the value of world wheat trade around $14 billion annually since 1980. Trade in wheat from 1979 through 1983 has amounted to more than 20 percent of world production annually.

Table 41.--Grain: U.S. exports and imports, by type, 1979-83, January-September 1983, and January-September 1984

Item	1979	1980	1981	1982	1983	Jan.-Sept. 1983	Jan.-Sept. 1984
	Value (million dollars)						
Exports:							
Wheat	5,204	6,375	7,844	6,676	6,236	4,694	5,522
Corn	7,018	8,564	8,007	5,677	6,474	4,478	5,626
Rice	854	1,289	1,527	997	926	692	729
Other grains	844	1,388	1,591	972	1,985	678	1,021
Total	13,980	17,616	18,969	14,322	11,651	10,542	12,878
	Quantity (1,000 metric tons)						
Wheat	33,378	35,750	43,908	40,782	38,466	29,034	36,004
Corn	59,226	63,129	54,826	48,873	47,627	34,256	37,609
Rice	2,335	3,075	3,198	2,574	2,416	1,840	1,877
Other grains	6,952	9,983	10,530	7,708	7,156	4,814	7,390
Total	101,891	111,937	112,462	99,937	95,665	69,944	82,880
	Value (million dollars)						
Imports:							
Wheat	1	1	1/	6	6	6	15
Corn	4	7	16	14	8	5	26
Rice	1	2	5	10	12	9	12
Other grains	1	27	27	44	54	44	56
Total	7	37	48	74	80	64	109
	Quantity (1,000 metric tons)						
Wheat	5	6	1	57	53	53	100
Corn	4	23	31	24	21	21	57
Rice	2	4	8	18	23	23	25
Other grains	11	156	142	286	485	485	447
Total	22	189	181	385	582	471	629

1/ Less than $500,000.

Source: Compiled from official statistic of U.S. Department of Agriculture.

While total grain production has been variable over the period, wheat production continued its long-term upward trend. World wheat production rose from 423.7 million metric tons in 1979/80 to 489.4 million metric tons in 1983/84 and is forecast to exceed 500 million tons in 1984/85 (table 42). The major producers, China, the U.S.S.R., the United States, and the EC-10 have accounted for about 60 percent of world wheat production each year of the period.

While production has increased by almost 16 percent from 1979/80 to 1983/84, this increase has not been shared evenly by all producers. For example, China's production increased by nearly 30 percent while the U.S.S.R.'s production dropped by about 16 percent over the period. With the exception of 1983/84, the United States also showed significant production increases. The combined production by Canada, Australia, and Argentina increased by nearly 50 percent, and the EC-10 increased production by more than 20 percent, from 1979/80 to 1983/84.

These changes in production have occurred owing to changes in both area harvested and yields (table 43). Wheat areas harvested worldwide increased slightly from 228.4 million hectares in 1979/80 to 239.3 million hectares in 1981/82 before falling to 229.0 million hectares in 1983/84 and are forecast to rise slightly in 1984/85. Yields, however, have increased steadily from 1.86 metric tons per hectare in 1979/80 to an estimated 2.20 metric tons per hectare in 1984/85.

As with total wheat production, these changes have not been uniform around the globe. The decrease in production in the U.S.S.R. from 1981/82 through 1983/84 was caused by both lower area harvested and declining yields. China's area harvested remained fairly steady over the period, but yields in that country increased irregularly from 2.14 metric tons per hectare to 2.80 metric tons per hectare in 1983/84. The area harvested in the EC-10 increased from 12.0 million hectare to 13.2 million hectares over the period while yields increased from 4.08 to 4.50 metric tons per hectare. Thus about half of their increased production was due to each of these factors. Argentina, Australia, and Canada all increased their harvested areas with the combined total rising from 26.5 million hectares in 1979/80 to 33.5 million hectares in 1983/84. Yields increased somewhat in these countries, rising from 1.57 to 1.82 metric tons per hectare over this same period. Thus, the greater portion of their significant increase in production was due to increased area. Area harvested in the United States rose sharply from 25.3 million hectares in 1979/80 to its preak of 32.6 million hectares in 1981/82 and then by 1983/84 had fallen below the 1979/80 level. Yields increased steadily from 2.30 to 2.65 metric tons per hectare from 1979/80 to 1983/84.

World wheat trade has increased at a slightly higher rate than production; rising from 86.0 million tons in 1979/80 to 103.2 million tons in 1983/84 (table 42). The United States is the leading exporter of wheat in the world, followed by Canada, the EC-10, Australia, and Argentina. These five exporters typically account for more than 95 percent of world exports.

Table 42.--Wheat: Production and trade by specified countries, crop years 1979/80-1984/85

(Million metric tons)

Country	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 1/
Producers:						
China (PRC)	62.7	55.2	89.6	68.4	81.4	85.0
U.S.S.R	90.2	98.2	80.0	86.0	78.0	75.0
U.S.A.	58.1	64.8	75.8	75.3	65.9	70.6
EC-10	48.8	55.1	54.4	59.8	59.3	75.
India	35.5	31.8	36.3	37.5	42.8	45.4
Canada	17.2	19.2	24.8	26.7	26.6	31.2
Australia	16.2	10.9	16.4	8.9	21.9	17.5
Argentina	8.1	7.8	8.3	14.5	12.3	12.5
All other	86.9	99.9	92.9	101.5	101.2	106.9
World total	423.7	442.7	948.6	478.6	489.4	509.5
Exporters:						
U.S.A.	37.2	41.9	48.8	39.9	38.9	46.5
Canada	15.0	17.0	17.6	21.4	21.8	17.2
Australia	14.9	10.6	11.0	8.1	11.6	15.0
EC-10	10.4	14.7	15.5	15.6	16.0	18.5
Argentina	4.8	3.9	4.3	7.5	9.6	7.5
All other	3.7	6.0	4.1	6.1	5.3	7.6
World total	86.0	94.1	101.3	98.6	103.2	107.3
Importers:						
U.S.S.R	12.1	16.0	19.5	20.2	20.5	26.0
China (PRC)	8.9	13.8	13.2	13.0	9.6	10.0
Egypt	5.2	5.6	5.8	5.4	6.4	6.4
Japan	5.6	5.8	5.6	5.8	5.9	5.7
Brazil	4.8	3.9	4.5	3.6	4.5	5.0
Iraq	2.3	1.6	1.8	3.0	3.3	3.3
Iran	1.9	1.9	1.4	1.4	2.5	3.0
Algeria	2.0	2.3	2.3	2.5	2.8	3.0
EC-10	5.3	4.5	4.7	4.0	3.6	2.7
Republic of Korea	1.8	2.1	1.9	1.9	2.4	2.7
Morocco	1.6	2.0	2.2	1.3	2.1	2.2
All other	34.5	34.6	38.4	36.5	39.6	39.5
World total	86.0	94.1	101.3	98.6	103.2	110.3

1/ Forecast.

Source: U.S.Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FG-1-85, January 1985).

Table 43.--Wheat: Area harvested, yield, and production, for major exporters, major importers, and world, 1979/80-1984/85

Area and source	1979/80	1980/81	1981/82	1982/83	1983/84 1/	1984/85 2/
United States:						
Area harvested (million hectares)	25.3	28.8	32.6	31.5	24.8	27.1
Yield (tons/hectare)	2.3	2.25	2.32	2.39	2.65	2.61
Production (million metric tons)	58.1	64.8	75.8	75.3	65.9	70.6
Canada:						
Area harvested (million hectares)	10.5	11.1	12.4	12.6	13.7	13.2
Yield (tons/hectare)	1.64	1.73	2.0	2.13	1.94	1.61
Production (million metric tons)	17.2	19.2	24.8	26.7	26.6	21.2
Australia:						
Area harvested (million hectares)	11.2	11.3	11.9	11.5	12.9	12.2
Yield (tons/hectare)	1.45	0.96	1.38	0.77	1.7	1.43
Production (million metric tons)	16.2	10.9	16.4	8.9	21.9	17.5
Argentina:						
Area harvested (million hectares)	4.8	5.0	5.9	7.3	6.9	5.8
Yield (tons/hectare)	1.69	1.55	1.4	1.98	1.79	2.16
Production (million metric tons)	8.1	7.8	8.3	14.5	12.3	12.5
EC-10:						
Area harvested (million hectares)	12.0	12.6	12.6	13.0	13.2	13.4
Yield (tons/hectare)	4.08	4.38	4.30	4.60	4.50	5.67
Production (million metric tons)	48.8	55.1	54.4	59.8	59.3	75.7
China (PRC):						
Area harvested (million hectares)	29.4	29.2	28.3	27.9	29.0	29.3
Yield (tons/hectare)	2.14	1.89	2.11	2.45	2.8	2.99
Production (million metric tons)	62.7	55.2	59.6	68.4	81.4	85.5
U.S.S.R.:						
Area harvested (million hectares)	57.7	61.5	59.2	57.3	50.0	51.5
Yield (tons/hectare)	1.56	1.6	1.35	1.5	1.56	1.46
Production (million metric tons)	90.2	98.2	80.0	86.0	78.0	75.0
World:						
Area harvested (million hectares)	228.4	236.5	239.3	238.9	229.0	231.2
Yield (tons/hectare)	1.86	1.87	1.87	2.0	2.14	2.2
Production (million metric tons)	424.4	442.7	448.6	478.6	489.4	509.5

1/ Preliminary.
2/ Projected.

Source: Compiled from official statistics of the U.S.Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FG-1-85, January 1985).

However, as with production, the increase in trade over the period has not been shared evenly by the major exporters. While the United States accounted for most of the increase in exports from 1979/80 to 1981/82, U.S. exports fell sharply in 1982/83 with only a slight decrease in overall wheat exports that year and declined again in 1983/84 even as world wheat exports reached a record level. Canada and the EC-10, the second and third leading suppliers, realized steady increases in exports throughout the period. Of the major competitors, only Australia had lower exports in 1983/84 than in 1979/80 and that is explained by their severe drought in the early 1980's.

Another significant factor in the world wheat market has been the emergence of the EC-10 as a major competitor. Only one year prior to the 1979/80 to 1983/84 period did the EC-10 become a net exporter of wheat. As noted in the section on foreign government programs, the EC-10 has stimulated production with high internal prices and has utilized export restitutions to enable their excess production to move into the world market.

All the major competitors are dependent on the world market (table 44). The United States exports one-half to two-thirds of its production, the EC-10 now exports more than one-fourth of its production, and the other major competitors export about two-thirds to more than three-fourths of their combined production. While the U.S. share of world exports peaked in 1981/82 at the same time that the combined share held by Argentina, Australia, and Canada dropped to its lowest level during the period, the EC-10 has maintained its share throughout the period.

Table 44.--Wheat exports: Percent of production and market shares, U.S. and major competitors, 1979/80 to 1984/85

	Exports as a percent of production			Percentage share of world exports		
	U.S.	EC 1/	Others 2/	U.S.	EC 1/	Others 2/
1979/80	64.0	21.3	83.6	43.3	12.1	40.3
1980/81	64.7	26.7	83.1	44.5	15.6	33.5
1981/82	64.4	28.5	66.5	48.1	15.3	32.5
1982/83	53.0	26.1	73.7	40.5	15.8	37.5
1983/84	58.4	27.0	70.8	37.7	15.5	41.7
1984/85 3/	58.8	24.7	77.5	38.7	17.2	36.9

1/ Does not net out the EC-10's imports.
2/ Argentina, Canada, and Australia.
3/ Forecast by the U.S.Department of Agriculture.

Changes on the demand side of the wheat market have intensified the competition between the major wheat exporters. The USSR and China are the two largest wheat importers in the world, accounting for approximately one-fourth to one-third of world wheat imports. These two markets accounted for more than one-half of the increase in the volume of trade from 1979/80 to 1983/84 (table 42).

The USSR has significantly increased its wheat imports since 1979/80. Soviet imports have grown from 12.1 million metric tons that year to 20.5 million metric tons in 1983/84. According to industry sources, this increase is a reflection of a distinct change in Soviet purchasing behavior. The partial grain embargo of 1980/81, the changed financial conditions of the world, and recent poor wheat harvests are probably the key factors behind the change. 1/

China's imports of wheat increased from 1979/80 to 1980/81 but have since declined. Government programs, favorable weather, and improvements in production practices, including increased use of fertilizer and higher yielding varieties, are the main factors responsible for China's increased production, particularly the large crop in 1983/84. 2/ These production increases have lead to a reduced demand for imported wheat.

The other primary wheat importers, with the exception of Brazil and EC-10, have all increased their volume of wheat imports. Brazil, still importing significant quantities of wheat, has been beset by debt problems in the early 1980's and has not increased its purchases. Imports by the EC-10 have declined steadily since 1979/80.

While tables 42 and 44 (showing the U.S. share of the world wheat market) are ways of looking at the global supply and demand situation for wheat and table 41 shows official U.S. export statistics, tables 45 and 46 show the flows of wheat exports by the major wheat exporters to ten major U.S. markets. These markets were the largest markets for U.S. wheat in 1983. 3/ Since the United States and its four major competitors provide the vast majority of world wheat exports, these tables provide a good picture of world wheat trade from 1979 through 1983.

According to U.N. data, U.S. wheat exports rose, in volume terms, from 31.7 million metric tons in 1979 to 41.7 million metric tons in 1983 before declining each the next two years to 36.5 million metric tons in 1983. In terms of value, U.S. exports peaked in 1982 at $6.7 billion before falling to $6.2 billion in 1983. More important than the actual numbers is the pattern of trade and the shifts that have or have not occurred over the five years shown on the tables.

1/ U.S.Department of Agriculture, Economic Research Service, Agriculture Information Bulletin number 467.

2/ Wisner, Robert N. and Craig A. Chase, World Food Trade and U.S. Agriculture, 1960-1983, The World Food Institute, Iowa State University, Ames, Iowa, August, 1984.

3/ Note the data on tables 45 and 46 are from the U.N. and are on a calendar year basis. Note also the U.S. export volume figures are approximately 5 percent lower on these tables than the figures shown on table 41.

Table 45.--Wheat: Exports, by selected suppliers, by major U.S. markets, 1979-83

(In millions of dollars)

Year and supplier	USSR	Japan	India	Brazil	China	Republic of Korea	Egypt	Nigeria	Iraq	Morocco	Sub-total	Rest of world	World
1979:													
U.S.----------------------	811.7	537.3	-	237.0	214.1	257.9	191.8	145.0	50.8	44.7	2,490.3	2,774.5	5,264.8
Australia----------------	157.5	146.7	5.4	-	367.3	7.1	236.3	-	146.3	-	1,066.6	620.9	1,687.5
Argentina----------------	39.7	-	-	212.6	116.5	-	-	-	-	5.2	374.0	232.0	606.0
EC-10--------------------	1.2	-	-	36.7	11.0	-	68.5	2.1	-	145.3	264.8	439.8	704.6
Canada-------------------	259.8	245.8	-	73.1	351.4	-	3.7	7.3	57.9	-	999.0	862.7	1,861.7
1980:													
U.S.----------------------	336.1	596.2	3.8	363.4	1,039.3	322.8	208.8	180.7	61.8	84.3	3,197.2	3,177.4	6,374.6
Australia----------------	589.2	141.6	-	-	322.3	-	304.6	-	141.3	-	1,499.0	704.1	2,203.1
Argentina----------------	415.6	-	-	154.9	119.4	-	-	1.5	-	-	691.4	124.7	816.1
EC-10--------------------	110.4	-	-	-	19.3	-	263.1	1.8	-	196.5	591.1	852.1	1,443.2
Canada-------------------	878.4	259.2	2.7	345.2	451.0	-	-	-	95.9	-	2,032.4	1,213.5	3,245.9
1981:													
U.S.----------------------	772.6	615.0	239.8	551.3	1,269.0	357.7	324.3	224.1	16.8	103.4	4,474.0	1,900.6	6,374.6
Australia----------------	288.1	169.3	-	-	241.6	-	319.1	-	38.1	-	1,056.2	638.9	1,695.1
Argentina----------------	603.1	-	-	8.7	21.5	-	-	-	26.9	-	660.2	103.4	763.6
EC-10--------------------	150.5	-	.1	15.9	107.8	67.9	29.9	3.5	-	263.2	638.8	1,206.2	1,845.0
Canada-------------------	793.9	296.1	-	202.5	573.6	-	24.1	-	35.5	-	1,925.7	1,184.8	3,110.5
1982:													
U.S.----------------------	802.2	563.6	256.2	429.0	1,046.7	298.8	278.2	213.9	27.0	107.0	4,022.6	2,653.4	6,676.0
Australia----------------	350.3	169.1	125.0	-	329.3	3.3	332.7	-	143.0	-	1,452.6	544.4	1,997.0
Argentina----------------	491.7	-	-	43.9	14.9	-	-	-	48.7	-	599.2	77.4	676.6
EC-10--------------------	211.2	-	-	13.5	104.2	47.4	6.1	-	-	111.3	493.7	975.6	1,469.3
Canada-------------------	1,146.8	235.4	14.0	209.9	596.8	-	22.5	-	72.5	-	2,297.9	1,174.8	3,472.7
1983:													
U.S.----------------------	800.6	589.3	576.5	429.0	377.7	304.8	294.4	213.4	184.0	161.6	3,925.5	2,309.8	6,235.3
Australia----------------	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
Argentina----------------	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
EC-10--------------------	492.1	-	-	10.3	98.3	23.9	158.8	1.1	-	72.9	857.4	833.2	1,690.6
Canada-------------------	1,189.7	275.5	46.9	263.8	743.9	-	6.9	6.0	72.6	-	2,605.3	1,165.3	3,770.6

1/ Not available.

Source: Compiled from official statistics of the United Nations.

Table 46.--Wheat: Exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousand metric tons)

Year and supplier	USSR	Japan	India	Brazil	China	Republic of Korea	Egypt	Nigeria	Iraq	Morocco	Subtotal	Rest of world	World
1979:													
U.S.	5,095.8	3,184.4	0.0	1,450.6	1,481.8	1,594.5	1,233.9	877.9	296.9	254.2	15,470.0	16,284.5	31,718.5
Australia	972.7	1,005.0	40.0	0.0	2,968.1	55.3	1,611.2	0.0	979.6	0.0	7,631.9	4,078.9	11,710.8
Argentina	232.5	0.0	0.0	1,493.8	876.3	0.0	0.0	0.1	0.0	111.9	2,714.6	1,564.3	4,278.9
EC-10	5.1	0.0	0.0	278.8	90.3	0.0	483.1	13.8	0.0	984.4	1,855.5	2,613.7	4,469.2
Canada	1,375.7	1,398.0	0.0	413.1	2,750.8	0.0	28.6	45.3	298.5	0.0	6,310.0	5,386.4	11,696.4
1980:													
U.S.	1,680.8	3,164.6	23.1	1,909.9	5,800.7	1,848.7	1,153.7	943.7	296.6	474.7	17,296.5	16,669.7	33,966.2
Australia	3,046.1	806.2	0.0	0.0	1,997.8	0.0	1,748.9	0.0	787.5	0.0	8,386.4	4,012.9	12,399.3
Argentina	2,292.4	0.0	0.0	868.5	665.7	0.0	0.0	8.4	0.0	0.0	3,835.0	659.6	4,494.6
EC-10	576.2	0.0	0.0	0.0	134.2	0.0	1,459.6	4.8	0.0	1,097.6	3,272.4	4,452.5	7,724.9
Canada	4,456.8	1,249.8	13.5	1,768.8	2,668.4	0.0	0.0	0.0	455.4	0.0	10,612.7	6,147.0	16,759.7
1981:													
U.S.	3,877.9	3,196.5	1,320.1	2,845.8	7,070.9	1,930.8	1,844.9	1,136.9	90.7	660.0	23,974.5	17,743.3	41,717.8
Australia	1,529.8	908.0	0.0	0.0	1,242.8	0.0	1,728.5	0.0	208.3	0.0	5,617.4	3,433.1	9,050.5
Argentina	2,958.2	0.0	0.0	50.0	126.0	0.0	0.0	0.0	134.3	0.0	3,268.5	497.9	3,766.4
EC-10	857.1	0.0	0.0	103.7	632.4	402.0	165.9	21.8	0.0	1,669.7	3,852.6	6,779.2	10,631.8
Canada	3,876.3	1,307.9	0.0	1,053.8	3,105.4	0.0	145.2	0.0	167.8	0.0	9,656.4	5,815.3	15,471.7
1982:													
U.S.	4,080.5	3,178.6	1,485.1	2,423.4	6,485.5	1,780.0	1,723.1	1,217.5	168.9	709.1	23,252.5	15,493.0	38,745.5
Australia	2,099.5	1,054.7	782.9	0.0	2,113.1	20.0	2,062.6	0.0	859.6	0.0	8,992.4	3,413.0	12,405.4
Argentina	2,732.0	0.0	0.0	241.5	93.6	0.0	0.0	0.0	279.8	0.0	3,346.9	453.6	3,800.5
EC-10	1,539.6	0.0	0.0	101.5	706.4	317.9	33.6	0.1	0.0	775.1	3,474.2	5,931.4	9,405.6
Canada	6,164.5	1,219.3	75.8	1,215.3	3,457.5	0.0	147.4	0.0	383.1	0.0	12,662.9	6,541.6	19,204.5
1983:													
U.S.	4,595.1	3,291.9	3,327.3	2,495.4	2,335.4	1,791.0	1,834.6	1,241.9	1,079.9	1,123.5	23,116.0	13,429.3	36,545.3
Australia	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
Argentina	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
EC-10	3,723.1	12.8	6.8	74.1	813.5	181.8	1,021.3	6.6	0.0	480.2	6,320.2	5,379.4	11,699.6
Canada	6,389.7	1,460.7	272.6	1,501.8	4,687.3	0.0	56.7	41.7	409.5	0.0	14,820.0	6,988.1	21,808.1

1/ Not available.

Source: Compiled from official statistics of the United Nations.

Note.--Totals may not add due to rounding.

The major U.S. markets correspond closely to the major world markets. The USSR, the largest single U.S. market prior to the embargo, was surpassed by China for three of the five years but is once again the major market for U.S. wheat. However, the U.S. share of that rapidly growing market has decreased substantially, dropping from nearly two-thirds in 1979 to less than one-fourth in 1982. The other major exporters have shared the increase in Soviet purchases, with Canada and the EC-10 making the most significant gains in both volume and market share. The U.S. exports to China and share of that market fell in 1983 as declining import requirements and diplomatic problems resulting partly from a textile trade dispute caused China to import less U.S. grain than required by its agreement with the United States. Chinese combined purchases of wheat and corn were about 1 million metric tons short of the 6 million metric ton minimum under the agreement.

Of the other eight major U.S. markets, the U.S. dominates the markets in India, South Korea, and Nigeria and competes with one or more of the major exporters in the other five. The Japanese market has been stable both in volume and market share for the United States, Australia, and Canada. The United States has been the major supplier to Brazil, with Canada also maintaining a significant share of that market. Argentina exports to Brazil have declined substantially since 1979 as Argentina has shipped the majority of its exports to the USSR since 1980. In Egypt and Morocco, the main competitor of the United States is the EC-10, and Australia has been the dominant supplier to Iraq.

Taken as a whole, the major markets are becoming even more important to the United States, as exports to these markets increased nearly 50 percent in volume and more than 57 percent in value from 1979 to 1983. This contrasts with decline in both volume and value to the rest of the world.

One aspect of wheat that is different from other crops is that the United States grows and exports five major classes of wheat, while each of the other major exporters mainly grows and exports one type of wheat. U.S. exports of hard red winter wheat (HRW), the main bread wheat and our main export wheat, go primarily to the USSR, Brazil, China, and Japan, and Argentina is the main competitor. China is the United States largest buyer of soft red winter wheat (SRW), and this type is used for cakes, pastries, and crackers. Hard red spring wheat (HRS), also used for bread, goes to a variety of markets with Canada being the major competitor. White wheat, exported by both the United States and Australia, goes primarily to Asian countries, mainly South Korea, Japan, and India, for use in noodle products. Egypt also imports white wheat. The EC-10 exports mainly soft wheat, while the United States, Canada, and the EC-10 export durum, which accounts for less then 5 percent of U.S. wheat exports. The best known use for durum wheat is in the preparation of pasta products. Some lower quality feed wheat is sold by most exporters but the quantities are relatively insignificant in most years. 1/

1/ USDA, ERS, Agriculture Information Bulletin Number 467.

This aspect of the world market, coupled with intrinsic differences in quality and condition of wheat available for export from the various competitors, needs to be taken into account when examining the competitiveness of U.S. prices in foreign markets. Table 47 shows export prices for the main wheat exported by the U.S. and three of the major competitors.

Table 47.--Export prices for wheat, United States and major competitors, 1980-84

(Basic FOB, U.S. dollars per metric ton)

Year	HRS 1/	U.S. No. 2 HW 2/	Argentina	Canada No. 1 CWRS 3/	Australia S&D white
1980	166	175	203	196	176
1981	159	177	189	191	175
1982	153	162	166	170	160
1983	156	158	138	168	161
1984 4/	155	154	135	165	154

1/ Duluth.
2/ Gulf.
3/ Thunder Bay, 13.5% protein.
4/ Average of monthly prices.

Source: U.S. Department of Agriculture, Foreign Agriculture Circular, FG-4-85, March 1985.

The best comparisons are between U.S. hard winter wheat and Argentine wheat and between U.S. HRS and Canadian WRS. U.S. hard winter wheat can generally command a small premium over Argentine wheat in most markets, and the table shows U.S. hard winter wheat selling at prices below Argentine wheat from 1980 to 1982. However, this three year period was distorted by the heavy sales of Argentine wheat at premium prices to the USSR during and immediately after the partial embargo of the USSR by the United States. Both U.S. and Argentine prices have declined since 1981, and in 1983 and 1984 the Argentine price was below the U.S. price.

U.S. HRS is usually viewed as competitive with Canadian WRS when priced slightly lower. The spread between these two was about $30 per metric ton in 1980 but has narrowed to $10 per ton in 1984. As the case with the comparison of U.S. and Argentine prices, the early years of this period were probably distorted by heavy Canadian sales to the USSR.

U.S. prices are supported by government programs, particularly the loan programs, and these loan programs have provided a floor for both domestic and export prices. U.S. export prices (table 47) have declined since 1981. The national average farm price has declined since the 1980 crop year to the point where in the 1982 and 1983 crop years it is down to the loan level (table 48). Note that the loan level has been lowered for the 1984 crop year. Converting the farm price and the loan level to estimated export prices illustrates the relationship between the export price and the government price-support program.

Table 48.--Wheat: U.S. farm price, loan rate, and equivalent export prices, 1979-84

(U.S. dollars per metric ton)

Crop year	Farm price	Equivalent export price 1/	National loan rate	Equivalent export price 1/
1979	NA	NA	92	129
1980	144	180	110	137
1981	134	171	118	155
1982	130	167	130	167
1983	130	167	134	171
1984	NA	NA	121	158

1/ Estimated equivalent, adjusted by including transportation and handling allowance of $1.00 per bushel ($36.74 per metric ton).

Source: Compiled from official statistics of U.S. Department of Agriulture.

Corn

Corn is the leading field crop produced in the United States, both in value and volume. Corn, like wheat, is important in trade, with corn exports from the United States ranging from $5.6 billion to $8.6 billion during the period from 1979 to 1983. Corn is also the major coarse grain produced and traded in the world as it is the most important feed grain used in feed rations for livestock.

Owing to the ease of substitution among coarse grains in feed rations, the market for corn cannot be viewed completely separate from the market for other coarse grains. World coarse grain production has been variable since the 1979/80 crop year, rising irregularly from 742.2 million metric tons in 1979/80 to 778.6 million metric tons in 1982/83 before dropping sharply to 689.5 million metric tons in 1983/84 (table 49). The United States is by far the largest producer of coarse grains in the world with normally about 30 percent of world production. China, the USSR, and the EC-10 generally account for another 30 percent of world coarse grain production.

World coarse grain trade has ranged from a high of 108.8 million metric tons in 1980/81 to a low of 90.7 million metric tons in 1983/84 with trade normally accounting for about 13 percent of world production. The major exporters of coarse grains are the United States, Argentina, Australia, Canada, and the EC-10, with the United States the dominant exporter. The major importers are the USSR, Japan, Mexico, Saudi Arabia, and the EC-10.

Corn generally accounts for about 56 percent of world coarse grain production and about 70 percent of coarse grain trade. In the United States, corn generally accounts for more than 80 percent of coarse grain production and 70 percent of coarse grain exports. Thus, while the United States produces and exports siginificant quantities of other coarse grains, particularly sorghum, corn is by far the most important coarse grain in international trade.

Table 49.--Coarse grains: Production and trade, by specified countries, 1979-84 1/

(Million metric tons)

Country	1979	1980	1981	1982	1983	1984
Production:						
United States-----	238.7	198.3	246.6	250.7	136.7	232.5
China-------------	83.1	84.2	80.8	83.5	92.4	97.5
U.S.S.R.----------	81.1	80.5	72.0	86.0	105.0	84.0
EC-10-------------	69.1	69.7	67.8	71.6	64.1	73.4
Canada------------	18.9	22.1	26.0	26.5	21.0	22.0
Argentina---------	10.6	21.0	18.4	18.2	17.9	18.5
S. Africa---------	11.7	15.3	8.8	4.5	5.2	8.5
Australia---------	6.2	5.2	6.6	3.9	9.3	8.2
Thailand----------	3.6	3.5	4.7	3.7	4.3	4.8
All others--------	219.2	232.2	237.0	230.0	233.6	240.7
World total--	742.2	732.0	768.7	778.6	689.5	790.1
Exports:						
United States-----	71.4	69.5	58.4	54.0	55.8	60.0
Australia---------	5.3	14.2	10.3	11.6	10.9	11.7
EC-10 2/----------	5.0	5.6	4.1	5.0	3.6	6.0
Argentina---------	4.1	2.3	3.4	.9	5.5	4.9
Canada------------	3.8	5.5	7.2	7.1	5.5	4.3
Thailand----------	2.2	2.4	3.5	2.3	3.3	3.4
S. Africa---------	3.5	4.1	4.7	2.3	.1	.1
All others--------	3.5	5.2	6.2	7.9	6.0	9.0
World total--	98.8	108.8	97.8	91.1	90.7	99.4
Imports:						
U.S.S.R.----------	13.8	23.5	20.4	11.0	11.9	23.0
Japan-------------	18.3	18.6	17.9	18.7	20.7	21.2
Mexico------------	6.3	7.1	1.6	7.2	5.9	5.1
Saudi Arabia------	1.8	2.6	3.9	3.9	4.9	4.9
EC-10 2/----------	13.3	11.1	8.8	6.5	6.2	4.5
Taiwan------------	3.4	3.7	3.9	4.2	4.0	4.2
Rep. of Korea-----	2.2	2.4	3.1	4.1	3.9	3.4
Venezuela---------	1.6	1.8	1.7	1.3	1.6	1.9
Egypt-------------	.9	1.0	1.4	1.5	1.5	1.7
All others--------	37.2	36.6	35.1	32.7	30.1	29.5
World total--	98.8	108.8	97.8	91.1	90.7	99.4

1/ Crop year.
2/ Excludes intra-EC trade.

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

World corn production since 1979/80 ahs not continued its earlier upward trend. Production increased from 424.2 million metric tons in 1979/80 to 438.9 million metric tons in 1981/82 but then fell to 349.8 million metric tons in 1983/84 as a result of the acreage reduction program and drought in the United States (table 50). The United States is the dominant producer, accounting for about 48 percent of world production in three of the past five crop years. China is the second leading producer, with Brazil, the EC-10 and the USSR not far behind. The five major producers accounted for nearly three-fourths of world corn production in 1982/83.

Besides being the largest corn producer, the United States is also the largest corn exporter, typically accounting for at least three-fourths of world exports. Unlike wheat trade, world corn trade has declined since 1979/80, from 73.9 million metric tons that year to 59.9 million metric tons in 1982/83. United States' corn exports have also declined over the period, and the share of the market taken by U.S. corn has fallen from 83 percent in 1979/80 to 74 percent in 1982/83. Argentina, Thailand, and South Africa, the other major exporters, have all experienced wide flucuations in exports over the period.

The major importers of corn are Japan, the USSR, and the EC-10. A number of other countries, including Taiwan, Korea, Mexico, Spain, and Portugal are also significant markets. Japan, the most stable of the major markets, has increased its imports from 12.1 million metric tons in 1979/80 to 14.5 million metric tons in 1983/84. The USSR, with large purchases in 1981/82 and 1982/83 has been a significant but unstable buyer over the period. The EC-10 has continued its long-term decline as an importer of corn, with the decline reflecting the EC-10's increased imports of cereal substitutes and increased production of coarse grains and soft feed wheat.

Tables 51 and 52 show the flows of corn exports by the major exporters to ten U.S. major markets and the world. Since these exporters usually account for about 90 percent of world exports and the ten markets shown usually account for about 70 percent of world imports, these tables provide a good view of world corn trade over the period.

Since the United States is the largest exporter, the major U.S. markets correspond to the major world markets. The USSR, the largest market for U.S. corn in 1979, dropped to the sixth largest U.S. market in 1983. Except for the Soviet market the United States clearly dominates these ten markets.

Japan, the largest market for U.S. corn since 1980, has been a steady customer, with U.S. exports to Japan rising from 9.5 million metric tons, with a value of $1.2 billion, in 1979 to 12.4 million metric tons, with a value of nearly $1.8 billion, in 1983. U.S. exports to Japan in 1983 accounted for more than 25 percent of total U.S. corn exports that year. In contrast, U.S. exports to Mexico, the second largest market in 1983, have varied considerably, from a high of 4.6 million metric tons in 1980 to less than 0.3 million metric tons in 1982. The decline in U.S. exports to the EC-10 reflects the overall decline in this market as the United States has been the major corn supplier to the EC-10.

Table 50.--Corn: Production and trade, by specified countries, crop years 1979/80-1984/85

(Million metric tons)

Country	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 1/
Producers:						
U.S.A.	201.7	168.6	206.2	209.2	105.9	191.2
China (PRC)	60.0	62.6	59.2	60.3	68.2	72.5
Brazil	20.2	22.6	22.9	19.5	21.0	21.5
EC-10	18.1	17.5	18.4	19.8	19.6	19.4
U.S.S.R 2/	8.4	9.5	8.0	13.5	16.5	12.1
Argentina	6.4	12.9	9.6	9.0	9.5	10.5
Mexico	9.2	10.4	12.5	7.0	9.3	9.5
S. Africa	10.8	14.6	8.4	4.1	4.4	7.5
Thailand	3.3	3.2	4.3	3.4	4.0	4.5
All other	86.1	84.9	89.4	91.7	91.4	91.6
World total	424.2	406.8	438.9	437.6	349.8	440.3
Exporters:						
U.S.A. 3/	9.8	59.8	50.0	47.5	47.4	51.4
Argentina	3.5	9.0	4.9	6.5	5.9	7.0
Thailand	2.1	2.1	3.3	2.1	3.0	3.1
S. Africa	3.3	3.9	4.7	2.3	0.1	0.1
All other	3.3	3.6	5.0	5.8	3.6	5.2
World total	73.9	78.5	67.9	69.2	59.9	66.8
Importers:						
U.S.S.R	9.6	15.1	13.4	6.5	9.5	16.9
Japan	12.1	13.9	13.3	14.5	14.5	14.5
EC-10	12.2	10.3	7.6	5.2	4.7	4.0
China (Taiwan)	2.5	2.6	2.6	3.2	3.1	3.2
Republic of Korea	2.1	2.3	2.8	3.9	3.4	3.2
Mexico	3.9	3.8	0.6	4.0	2.5	2.6
Spain	3.8	5.1	5.6	4.0	2.9	2.5
Portugal	2.5	2.9	2.2	2.2	2.1	2.1
China (PRC)	1.9	0.8	1.2	2.4	0.1	0.3
All other	23.3	21.7	18.7	18.2	17.2	17.6
World total	73.9	78.5	67.9	64.2	59.9	66.8

1/ Forecast.
2/ Bunker weight basis.
3/ Adjusted for trans-shipments through Canadian ports.

Source: U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agricultual Circular, (FG-1-85, January 1985).

Table 51.—Corn: Value of exports, by selected suppliers, by major U.S. markets, 1979-83

(In millions of dollars)

Year and supplier	Japan	Mexico	EC-10	Republic of Korea	Taiwan 1/	USSR	Spain	Portugal	Egypt	China	Subtotal	Rest of world	World
1979:													
U.S.	1,203.2	116.4	1,222.2	318.9	274.7	1,407.5	235.9	206.9	56.9	268.5	5,311.1	1,714.0	7,025.1
Argentina	2.7	-	182.3	-	-	164.0	143.3	-	-	-	492.3	114.0	606.3
Thailand	56.0	-	1.3	-	10.0	7.7	-	-	-	4.0	79.0	193.6	272.6
1980:													
U.S.	1,632.5	681.4	1,385.3	316.2	271.5	602.2	353.7	329.4	131.2	224.5	5,927.9	2,642.2	8,570.1
Argentina	.2	-	61.1	-	-	428.6	.2	-	-	-	490.1	23.2	513.3
Thailand	15.2	-	.2	-	26.9	51.6	-	-	-	19.3	113.2	238.5	351.7
1981:													
U.S.	1,792.0	453.0	1,105.1	323.9	238.2	781.7	430.5	379.8	191.5	62.5	5,838.2	2,175.8	8,014.0
Argentina	-	-	64.8	-	-	1,134.4	36.4	-	-	-	1,235.6	71.9	1,307.5
Thailand	3.0	-	.8	6.9	19.0	39.1	-	-	-	23.5	92.3	286.4	378.7
1982:													
U.S.	1,290.3	37.2	787.7	331.7	239.0	818.0	439.8	252.1	136.7	189.4	4,522.7	1,160.2	5,682.9
Argentina	-	-	39.7	-	-	376.9	42.1	-	-	12.3	471.0	114.0	585.0
Thailand	24.2	-	.8	2.4	22.8	13.4	-	-	-	11.9	75.5	282.7	358.0
1983:													
U.S.	1,764.4	676.1	585.6	559.7	431.2	390.9	338.7	300.3	184.7	158.1	5,389.7	1,090.5	6,480.2
Argentina	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Thailand	1.6	-	7.1	9.4	1.2	22.7	3.7	-	-	23.4	69.1	295.5	364.6

1/ Estimated.
2/ Not available.

Source: Compiled from official statistics of the United Nations.

Table 52.—Corn: Volume of exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousand metric tons)

Year and supplier	Japan	Mexico	EC-10	Republic of Korea	Taiwan 1/	USSR	Spain	Portugal	Egypt	China	Subtotal	Rest of world	World
1979:													
U.S.	9,521.7	825.2	9,909.0	2,605.1	2,076.8	11,366.3	1,904.8	1,669.2	442.7	2,270.9	42,591.7	13,700.0	56,291.7
Argentina	31.1	0.0	1,777.5	0.0	0.0	1,612.3	1,461.0	0.0	0.0	0.0	4,881.9	1,078.6	5,960.5
Thailand	469.8	0.0	9.2	0.0	72.1	50.9	0.0	0.0	0.0	33.8	635.8	1,352.4	1,988.2
1980:													
U.S.	11,239.8	4,613.6	9,968.3	2,197.6	1,897.7	4,016.7	2,628.9	2,407.2	935.2	1,583.3	41,488.3	18,507.0	59,995.3
Argentina	1.0	0.0	407.1	0.0	0.0	2,924.7	1.3	0.0	0.0	0.0	3,334.1	146.7	3,480.8
Thailand	111.0	0.0	1.3	0.0	165.2	284.1	0.0	0.0	0.0	130.4	692.0	1,483.3	2,175.3
1981:													
U.S.	11,244.9	2,687.4	7,912.2	2,105.3	1,406.8	5,126.4	2,993.1	2,603.6	1,278.0	444.9	37,802.6	14,305.1	52,107.7
Argentina	0.0	0.0	444.5	0.0	0.0	8,004.7	251.3	0.0	0.0	0.0	8,700.5	463.2	9,163.7
Thailand	20.5	0.0	5.6	51.0	122.3	252.6	0.0	0.0	0.0	143.3	595.3	1,952.1	2,547.4
1982:													
U.S.	10,872.2	235.9	6,238.0	2,935.6	1,807.5	6,619.6	3,641.8	2,129.4	1,122.1	1,511.2	37,113.3	9,337.8	46,451.1
Argentina	0.0	0.0	368.5	0.0	0.0	3,310.4	533.0	0.0	0.0	122.3	4,334.2	891.8	5,226.0
Thailand	185.6	0.0	6.0	21.7	192.3	110.7	0.0	0.0	0.0	95.2	611.5	2,439.7	3,051.2
1983:													
U.S.	12,402.6	4,494.0	3,949.4	3,870.0	3,103.4	2,786.7	2,426.7	2,079.3	1,358.8	1,288.2	37,759.1	7,509.6	45,268.7
Argentina	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Thailand	10.6	0.0	48.3	71.5	7.3	171.7	27.9	0.0	0.0	162.0	499.3	2,130.7	2,630.0

1/ Estimated.
2/ Data not available.

Source: Compiled from official statistics of the United Nations.

U.S. exports to the other top markets, Korea, Taiwan, Spain, Portugal, and Egypt, were higher in 1983 than in 1979. U.S. exports to China have varied widely over the period. Although U.S. corn exports dropped nearly 20 percent in volume terms since 1980, and nearly 25 percent from the high in 1981, U.S. exports to the ten top markets declined only about 11 percent reflecting the increasing concentration of U.S. exports in these markets.

As noted previously, corn competes with other feed grains and other livestock feeds. Thus, the United States is increasingly competing against not only Argentina, Thailand, and South Africa for corn exports, but against these countries for other feed grains and non-grain feed ingredients, and against Canada and Australia for other coarse grains and feed wheat. For example, Argentina's exports of corn have trended upward since 1979/80 (table 50), but its exports of all coarse grains (primarily corn and sorghum) have risen even faster (table 49). Argentina's exports of feed wheat also compete with U.S. corn. Canada and Australia also produce and export other feed grains and feed wheat, and the current surplus of wheat may encourage substitution of feed wheat for corn by importers. Such substitutions are also occurring to some degree in both the United States and the EC-10, major coarse grain producers.

It is often stated that the United States is dependent upon the export market, and it is nearly as true for corn as it is for wheat as the United States exported from 22 percent to 45 percent of annual corn production during this period. Despite the fact that the United States dominates these markets, some of the other major exporters also depend on the export market. For example, Argentina exported more than 60 percent of its coarse grain production in three of the five years, and its exports of corn were an even higher percentage of production. Thailand exported more than 60 percent of its annual corn production each year, with its exports in 1981/82 amounting to more than 75 percent of production.

U.S. corn is considered competitive with Argentine corn when the U.S. price is slightly higher owing to quality differences and lower transportation costs which account for the apparent premium for U.S. corn. The disruption in world grain markets in 1980 and 1981 is apparent when these prices are compared (table 53). Since 1982, U.S. corn has sold at slightly higher prices than its major competition on an FOB basis, although the situation has reportedly worsened for U.S. corn in the last quarter of 1984 and into 1985 with Argentine prices quoted at $92 per metric ton versus $120 per metric ton for U.S. corn in January 1985. 1/

As in the case of wheat, the loan rate has established a floor for U.S. corn export prices (table 54). Comparing the tables 53 and 54 it is apparent that export price has been met and even exceeded by the equivalent export price of the rising loan rate. The loan rate has been lowered for the 1984 crop year and the $120 price for U.S. corn cited above reflects this change.

1/ USDA, FAS, World Grain Situation and Outlook, FG-1-85, January 1985.

Table 53.--Export prices for corn: U.S. and Argentina, 1980-84

(Basis FOB, U.S. dollars per metric ton)

Year	U.S. 1/ No. 3 yellow	Argentina
1980	130	160
1981	134	137
1982	110	109
1983	137	133
1984 2/	131	127

1/ Gulf..
2/ Preliminary.

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

Table 54.--Corn: U.S. farm price, loan rate, and equivalent export prices, 1979-1984

(Dollars per metric ton)

Crop year	Farm price	Equivalent export price 1/	National loan rate	Equivalent export price 1/
1979	NA	NA	83	114
1980	122	154	89	120
1981	98	130	94	126
1982	106	137	100	132
1983	128	159	104	136
1984	NA	NA	100	132

1/ Estimated equivalent, adjusted by including transportation and handling allowance of $0.80 per bushel ($31.49 per metric ton).

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

Rice

Rice is an important food staple for about a third of the world's population, accounting for about a fifth of the world's grain consumption. Rice ranks third behind wheat and corn in world grain production, and despite its importance as a food and the size of the world's production, world trade in rice is relatively small. Only about 5 percent of the milled rice produced in the world is traded. In the United States, rice is the ninth leading field crop, in terms of value, and the United States normally supplies only about 2 percent of the world rice production but supplies about 20 percent of the world's exports. 1/

1/ USDA, ERS, Agriculture Information Bulletin Number 470, September 1984.

World rice production increased from 385.3 million metric tons to 419.3 million metric tons in 1983 (table 55). The major producers of rice are Asian countries, lead by China with about 40 percent of world production. The other major producers include India, Indonesia, Bangladesh, Thailand, Japan, and Burma. The only countries outside of Asia among the top ten producers are Brazil and the United States.

The major exporters are Thailand, the United States, Pakistan, Burma, and China. Of these, Thailand and United States have contributed over one-half of the world's exports in recent years. World trade in rice has not increased along with production, and world exports in 1983 were just about the same as those in 1979. The major rice importers over the period have been the EC-10, Iran, Malaysia, Iraq, and Nigeria. The increase in imports by the last four of these countries has been just about offset by decreases in the other smaller markets.

Rice exports by the United States and three of its main competitors are shown on tables 56 and 57. These exporters accounted for about 70 percent of total rice exports in 1983.

According to U.N. data, U.S. rice exports rose from 2.3 million metric tons with a value of $850 million, in 1979 to 3.2 million metric tons, with a value of $1.5 billion, in 1981 and then declined over the next 2 years to 2.4 million metric tons, and $926 million, in 1983. The increase from 1979 to 1981 and the decline from 1981 to 1983 can be attributed largely to two markets, Korea and Nigeria. U.S. exports to these markets increased by more than 1.1 million metric tons from 1979 to 1981 and then declined by nearly 1.0 million tons from 1981 to 1983.

The top three markets for U.S. rice in 1983, Saudi Arabia, Iraq, and the EC-10, all took more U.S. rice in 1983 than in 1979. Although the United States ships more rice to these markets than do the other suppliers, Pakistan has supplied increasing amounts to Saudi Arabia while Thailand is a significant competitor in the EC-10 market.

Thailand's increased exports to Nigeria have offset declining U.S. exports to that market, and Thailand has now regained the lead in that market. In only one of the other top U.S. markets, Indonesia, does the United States face much competition from the other major suppliers.

The key factors affecting trade in rice are the importance of rice in the diets in developing countries, weather, the concentration of trade among a few countries, and the role of government programs. Governments in producing, importing, and exporting countries have reacted to what has been described as a thin, volatile, and risky market for rice. Assurance of adequate supplies is the primary concern in developing countries which take about 70 percent of world imports, and much this rice is purchased by government agencies in those countries. Government agencies in the exporting countries are also heavily involved in rice trade. According to USDA, Thailand sold about 40 percent of its 1983 exports through a government agency.

Table 55.--Rice: Production and trade, by specified countries, 1979-84

(Million metric tons)

Country	1979	1980	1981	1982	1983	1984	1985 1/
Production:							
China	137.0	143.7	139.9	144.0	161.2	168.9	176.0
India	80.7	63.6	80.5	80.0	70.7	89.7	87.8
Indonesia	25.8	26.3	29.7	32.8	33.6	35.2	36.8
Bangladesh	19.3	19.1	20.8	20.5	21.3	21.9	21.5
Thailand	17.5	15.8	17.4	17.8	16.9	19.3	18.5
Japan	15.7	14.9	12.2	12.8	12.8	13.0	14.8
Burma	10.6	9.7	13.3	14.1	14.4	14.4	14.4
Brazil	7.6	9.6	8.6	9.2	7.8	9.0	9.0
Rep. of Korea	7.6	7.1	6.0	7.1	7.3	7.6	8.0
United States	6.0	6.0	6.6	8.3	7.0	4.5	6.3
Pakistan	4.9	4.8	4.7	5.1	5.2	5.2	5.3
EC-10	1.0	1.1	1.1	1.1	1.1	1.1	1.1
All others	51.6	55.3	58.0	59.7	60.0	61.3	61.1
World total	385.3	377.0	398.8	412.5	419.3	451.1	460.6
Exports:							
Thailand	2.7	2.7	3.0	3.6	3.7	4.5	4.1
United States	2.3	3.0	3.0	2.5	2.3	2.2	2.0
Pakistan	1.4	1.0	1.1	.8	1.3	1.1	1.1
Burma	.6	.7	.7	.7	.8	.8	.8
China 2/	1.1	1.0	.6	.5	.6	.7	.7
EC-10	.7	.7	.8	.6	.8	.7	.7
All others	2.7	3.4	3.9	2.9	2.3	2.3	2.1
World total	11.7	12.5	13.1	11.6	11.8	12.3	11.5
Imports:							
EC-10 2/	1.0	.9	1.3	1.1	1.1	1.0	1.0
All others	10.7	11.6	11.8	10.5	10.7	11.3	10.5
World total	11.7	12.5	13.1	11.6	11.8	12.3	11.5

1/ Jan. 14, 1985 projection.
2/ Excludes intra-EC trade.

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

Table 56.—Rice: Value of exports, by selected suppliers, by major U.S. markets, 1979-83

(In millions of dollars)

Year and supplier	Saudi Arabia	Iraq	EC-10	Republic of Korea	Nigeria	South Africa	Peru	Canada	Liberia	Indonesia	Subtotal	Rest of world	World
1979:													
U.S.	95.4	85.7	78.0	44.2	20.1	43.8	23.5	29.6	16.4	88.6	525.3	324.9	850.2
Thailand	13.4	31.7	17.3	3.5	61.0	.3	-	-	4.5	149.3	281.0	482.6	763.6
Pakistan	54.2	55.0	4.0	-	-	.5	8.2	.6	-	12.2	134.7	327.5	462.2
EC-10	1.9	-	-	-	.1	-	-	.5	-	1.9	4.4	126.9	131.3
1980:													
U.S.	127.1	123.7	95.7	291.6	92.1	46.1	41.3	38.4	24.8	67.0	947.8	336.7	1,284.5
Thailand	19.0	20.3	54.0	7.2	67.4	.5	-	.1	-	177.2	345.7	607.1	952.8
Pakistan	66.2	18.3	2.4	-	-	.4	7.5	.1	-	-	94.9	339.1	434.0
EC-10	.4	-	-	-	.2	-	-	.3	-	.8	1.7	180.7	182.4
1981:													
U.S.	153.6	37.0	153.2	418.9	222.9	56.8	44.7	46.8	34.3	45.9	1,214.1	312.3	1,526.4
Thailand	40.7	1.4	36.4	37.1	81.3	-	-	.5	-	79.0	276.4	935.9	1,212.3
Pakistan	83.1	48.3	4.9	-	1.5	-	10.6	-	-	15.2	163.6	363.8	527.4
EC-10	.3	-	-	22.1	.3	-	-	.5	-	-	23.2	173.4	196.6
1982:													
U.S.	163.1	96.0	113.6	65.3	149.8	48.8	16.3	46.3	29.7	3.9	732.8	264.5	997.3
Thailand	29.1	8.2	25.6	.5	49.9	3.1	-	.8	2.0	54.6	173.8	804.6	978.4
Pakistan	63.4	.9	1.5	-	-	-	-	-	-	3.6	69.4	205.2	274.6
EC-10	.1	-	-	-	-	-	-	.4	-	.1	.6	156.5	157.1
1983:													
U.S.	146.0	111.3	93.4	61.0	56.9	56.6	43.3	41.8	28.0	27.8	666.1	159.5	925.6
Thailand	20.4	3.5	36.0	.1	121.0	-	-	1.6	1.0	60.9	244.5	631.9	876.4
Pakistan	66.1	.5	5.1	-	-	-	-	.1	-	8.5	80.3	336.1	416.4
EC-10	3.2	.3	-	-	-	-	3.4	.4	-	.1	7.4	127.3	134.7

Source: Compiled from official statistics of the United Nations.

Table 57.—Rice: Volume of exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousand metric tons)

Year and supplier	Saudi Arabia	Iraq	EC-10	Republic of Korea	Nigeria	South Africa	Peru	Canada	Liberia	Indonesia	Subtotal	Rest of world	World
1979:													
U.S.	184.8	205.5	232.4	163.9	42.7	96.2	87.4	79.3	55.3	302.8	1,450.3	871.3	2,321.6
Thailand	43.1	100.1	56.7	11.5	198.4	0.9	0	0.1	17.5	632.2	1,060.5	1,736.4	2,796.9
Pakistan	73.0	82.8	7.0	0	0	1.7	33.0	0.7	.2	51.6	250.0	1,117.2	1,367.2
EC-10	4.3	0	0	0	0.1	1/	0	0.6	1/	3.5	8.5	332.4	340.9
1980:													
U.S.	223.5	268.8	240.2	844.9	189.9	105.0	97.9	87.1	65.1	173.7	2,296.1	767.8	3,063.9
Thailand	45.0	49.4	134.4	20.2	177.1	2.2	0	.2	0	647.5	1,076.0	1,723.7	2,799.7
Pakistan	95.2	26.2	3.4	0	0	0.5	20.5	.2	0	0	146.0	825.3	971.3
EC-10	.9	1/	0	0	.2	1/	0	.4	0	1.3	2.8	398.4	401.2
1981:													
U.S.	236.2	73.8	407.4	968.1	402.1	122.2	87.6	100.0	90.1	91.4	2,568.9	626.7	3,195.6
Thailand	87.6	2.8	82.7	106.4	190.7	1/	0	.9	0	198.0	669.1	2,362.7	3,031.8
Pakistan	115.2	67.2	11.3	0	4.0	0	30.0	1/	0	39.5	267.2	858.3	1,125.5
EC-10	.5	0	0	51.3	.4	1/	0	.7	1/	0	52.9	338.7	391.6
1982:													
U.S.	313.2	234.6	342.7	253.5	343.1	120.3	57.3	110.4	84.8	14.2	1,874.1	699.8	2,573.9
Thailand	94.9	15.4	98.1	1.8	195.3	22.6	0	1.8	8.0	185.3	623.2	3,207.6	3,830.8
Pakistan	91.1	4.4	2.1	0	0	1/	0	1/	0	10.5	108.1	686.1	794.2
EC-10	.2	1/	0	1/	1/	1/	1/	.4	1/	.2	.8	325.2	326.0
1983:													
U.S.	281.2	281.6	253.6	246.3	124.2	143.1	121.5	98.5	80.9	77.5	1,708.4	707.1	2,415.5
Thailand	73.0	12.3	139.5	.3	471.2	0	0	3.9	3.8	258.6	962.6	2,513.9	3,476.5
Pakistan	108.8	3.5	17.1	0	0	1/	0	.1	.1	36.6	166.2	1,132.6	1,298.8
EC-10	9.3	1.1	0	0	1/	0.1	5.0	.4	1/	.1	16.0	349.3	365.3

1/ Less than 0.05 thousand metric tons.

Source: Compiled from official statistics of the United Nations.

Note.—Because of rounding, figures may not add to the totals shown.

In the United States, Government programs have promoted rice exports. Although the percentage of U.S. rice exports sold under government programs has been lower over the past five years than in earlier periods, government programs accounted for 11 percent to more than 23 percent of rice exports during the period. 1/

One indication of the competitiveness of U.S. rice in foreign markets is the relationship between prices for rice from the United States and from Thailand. Owing the quality difference, U.S. rice has historically commanded a price premium over Thai rice in world markets. A related point is that part of this premium, on an FOB basis, derives from lower freight costs to most of the largest import markets. As shown on table 58, the price spread between the two largest exporters has grown wider, from $129 per metric ton in 1979 to $202 per ton in 1984. The change in the price spread from 1981 to 1984 is even larger, thus reducing the competitiveness of U.S. rice.

Table 58.--Rice: Export prices, U.S. farm prices, and U.S. loan rates, 1979-84

(U.S. dollars per metric ton)

Year	Export prices		U.S. farm price 3/	U.S. loan rate 4/
	Thailand 1/	U.S. 2/		
1979--------	402	531	231	150
1980--------	513	599	282	157
1981--------	572	631	199	176
1982--------	362	481	179	179
1983--------	340	514	187	179
1984 4/-----	311	513	NA	176

1/ Basis FOB, Thai 100% Grade B, milled.
2/ Basis FOB, U.S. Grade #2, 4% broken, long grain, milled.
3/ U.S. farmgate, rough.
4/ Rough.

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

While these prices may not be directly comparable because prices for different types or qualities move somewhat independently of each other, they are useful in showing trends or changes. For comparable rice, U.S. milled rice prices exceeded Thai milled prices by $22 per metric ton in the 1980/81 marketing year, but by $160 per metric ton in the 1983/94 marketing year. 1/

1/ U.S. Department of Agriculture, Economic Research Service, Agriculture Information Bulletin Number 470, September, 1984.

The U.S. farm price fell from $231 per metric ton in 1979, more than 50 percent above the loan rate that year, to $179 per metric ton by 1982 and equalled the 1982 loan rate. In 1983 the price was only slightly higher than the loan rate.

U.S. Government programs

Price-support programs.--Since the United States is the largest exporter of wheat and corn, and a significant exporter of rice, there is little question that U.S. government programs have had an effect on U.S. exports and the world markets for these grains. Government programs for the support of agricultural commodity prices and the maintenance of orderly marketing of the commodities, including wheat and corn, have been in existence since the 1930's. The key provisions of the price-support and marketing programs include non-recourse loans, the farmer-owned grain reserve, deficiency payments, and acreage controls. 1/

The loan program has been a basic feature of the wheat, corn, and rice price-support programs since the 1930's. Nonrecourse loans were provided for each of these grains by the Agricultural Adjustment Act of 1938. The loan program, like the other provisions, has been modified several times, with the latest revisions contained in the Agriculture and Food Act of 1981. Minimum loan rates were written into the legislation.

Under the loan program, producers can place their harvested wheat, corn, or rice under loan from the Commodity Credit Corporation (CCC) at the amount specified for that year. Producers may repay the loan at any time during the term of the loan (normally 9 months) and sell their grain in the market, or they can elect to turn over the commodity to the CCC and thus fulfill their loan obligation. Producers generally would elect to repay the loan if the market price was higher than the loan rate and turn the grain over to the CCC if the market price was lower than the loan rate.

The farmer-owned grain reserve (FOR), established by the Food and Agriculture Act of 1977, was designed to remove wheat and corn from the marketplace in surplus years and release it to the marketplace in short years. It allows participating farmers to receive a CCC loan and storage payment for wheat and corn entered into the reserve, with the stipuletion that the grain is to remain in the reserve until the national average market price reaches a predetermined release level. When the release level is reached, producers can remove the grain from the reserve (after settlement is made on the loan and prepaid storage payments). If the national average market price reaches the call level, the CCC requires all reserve loans to be paid in full or the CCC takes title to the grain.

1/ For a complete description and history of these programs, see Wheat-Background for 1985 Farm Legislation, Agriculture Information Bulletin Number 467, Economic Research Service, USDA, September 1984.

The third provision of the price-support program, target prices and deficiency payments, was established in 1973 for wheat and corn and in 1975 for rice. Under target prices, deficiency payments are made to producers when the farm price falls below the specified target price, with the maximum payment equal to the difference between the target price and the loan rate. Prior to the 1981 Act which set minimum target prices for each year, target prices for wheat and corn were adjusted on the basis of changes in the cost of production and yield rates. The 1981 Act also made the rice program analagous to those for other grains, as earlier deficiency payments to rice producers had been made on an allotment basis regardless of actual production.

The fourth leg of the price-support program, acreage controls, was also modified by the 1981 Act. The new acreage reduction program (ARP) required diversion from a crop-specific acreage base to conservation uses for a producer to be eligible for the other provisions of the price-support program. In 1982, the ARP's for wheat and rice were 15 percent and for corn, 10 percent. In 1983, the ARP's were continued at the same levels, and paid land diversions of 5 percent for wheat and rice and 10 percent for corn were added. In reaction to high carryover stocks, a Payment-In-Kind (PIK) program was added to further reduce acreage planted to these grains. These programs, coupled with the drought in 1983 which affected corn production, significantly reduced corn and rice production and stocks. However, record wheat yields and declining exports prevented the 1983 wheat program from achieving a significant reduction in stocks.

Taken together the provisions of the price-support programs for these three grains have both direct and indirect effects on U.S. exports and the competitive position of U.S. agricultural products in the world market. Since the United States is the largest exporter of wheat and corn, and the second largest exporter of rice, the domestic loan rates for these grains directly support international prices. Generally, the loan rates act as floors for domestic prices. These price signals are transmitted to the world markets and competitors, and possibly importers, may increase production if the loan rates maintain U.S. prices at levels higher than those needed to move the large U.S. supplies onto the world market.

As shown in the earlier comparisons of U.S. and major competition grain prices, U.S. prices have lost some degree of competitiveness in the last 2 or 3 years. The strong U.S. dollar has certainly affected this drop in price competitiveness, but the price-support programs may have exacerbated the problem.

The corn program provides the best example of the indirect effect on U.S. exports. Higher corn prices are an indirect cost to livestock and poultry producers thus reducing their competitiveness in the world markets for their products.

Export Programs.--In addition to production control and price-support programs, the United States has concessional and government export programs. The concessional programs operate under Title 1 and Title 11 of the Agricultural Development and Assistance Act of 1954 (P.L. 480) and a program initiated in 1979 by the Agency for International Development (AID). The PL-480 Title 1 program provides long-term low-interest credit with repayment terms up to 40 years and a grace period up to 10 years. Under Title 1, three-fourths of all food exports must be sent to countries with a low per capita Gross National Product (GNP); since 1982, the prescribed level has been $730 or less per year. Title 11 exports involve food donations. The AID program provides financial grants and loan for agricultural commodity purchases.

Recent years have seen an expansion of government loan guarantees and other export assistance programs. These programs have involved Commodity Credit Corporation (CCC) loan guarantees to aid exporting firms who experience difficulty in finding commercial credit for sales to foreign purchasers and a "Blended Credit Program" developed in 1982 to encourage farm exports. Under the former program, CCC guarantees repayment of the principal and some interest to private lending institutions which provide short-term or intermediate-term credit. Under the latter program, interest-free government loans and CCC credit guarantees are "blended" and cover nearly all the principal and up to 8 percentage points of interest, in effect reducing the price of the commodity.

Wheat, wheat flour, and corn have been emphasized by the concessional programs. Wheat and flour exports under the three concessional programs have exceeded $550 million in each fiscal year from 1979 through 1983, and in fiscal year 1983 concessional wheat and flour exports accounted for 10.6 percent of total wheat and flour exports. 1/

The "Blended Credit Program" has been offered as one mechanism to increase the U.S. share of world trade in agricultural products and to meet subsidized competition from other exporters. CCC has made efforts to ensure that sales under this program are in addition to amounts which the countries receiving assistance would have purchased without the program.

European Community (EC-10) programs

Price-support programs.--Grain prices are set annually by the EC and fluctuate between a band of upper-end target and lower-end intervention prices. 2/

1/ U.S. Department of Agriculture, Economic Research Service, Foreign Agricultural Trade of the United States.

2/ The EC's Common Agricultural Policy (CAP) for grains covers common and durum wheat, barley, corn, rye, oats, buckwheat, millet, canary seed, grain sorghum and other cereals, wheat and rye flour, groats, meal and certain first stage processed cereal products, such as cereal meal and groats, malt, gluten, cereal residues, starch and glucose.

The target price is the wholesale price level set by the EC in the most deficit consuming region (Duisburg, West Germany) and is fixed above the intervention price for durum and common wheat, barley, rye, and corn. The EC uses the target price to increase or decrease competitiveness of nonmember grain in the EC market.

The intervention price--similiar to the U.S. loan rate--is the price at which the EC is obligated to buy barley, feed wheat, rye, corn, durum wheat and sorghum. It is related to market conditions in Ormes, France where the cereals surplus is greatest and market prices are lowest. Setting the intervention price at a level needed to support the market in Ormes ensures that the support level is not too high elsewhere. Market prices for the main EC-produced cereals in most seasons tend toward intervention due to the EC's excess of production over consumption. Only for common and hard breadmaking wheat, where the EC is less than self-sufficient, are market prices generally near target prices, as imports cannot undercut them. 1/ For bread-making quality wheat, a reference price is fixed to set a floor to the market and may be applied as an intervention price for part of the year. 2/

The threshold price is a minimum import price set by the EC, which is usually above world grain prices. Grain imports are levied to reflect the difference between threshold and world market prices. The threshold price derives from the target price by subtracting from this the cost of transport from Rotterdam to Duisburg, the cost of unloading or transshipping, and a trading margin. Since the threshold price is fixed while world prices vary daily, the difference or the levy also varies daily. When internal prices reach the threshold price (plus transport costs), only then are grains from nonmembers allowed to enter the EC. As a result, grain production is not greatly affected by world price levels. Levies collected on imports cover a large proportion of the costs of the EC grains regime.

Export programs.--Spending on export restitutions has been the largest single category of spending in the grains regime, amounting to 70 percent in 1982. The EC provides grain export restitutions for wheat, wheat flour, rice, and barley. The amount of the restitution on EC wheat exports varies depending on the region of the world to which it is shipped. There are two categories of EC export restitutions. One is awarded by tender at a weekly auction and covers most of the world market. The other is a straight subsidy for exports to countries bordering the EC and is usually lower than the refund by tender to account for the lower freight charge. The EC has adopted an increasingly aggressive wheat and wheat flour export policy, using restitutions to dispose of surplus grain in world markets.

1/ Simon Harris, et. al., The Food and Farm Policies of the EC (New York: John Wiley, 1983). In 1983, the EC introduced a guaranteed threshold for cereal production to hold down increasing stock levels.

2/ The wheat reference price is set at 14 percent above the common feedgrain intervention price. Special intervention measures are available for bread making quality wheat to support market prices at the reference level. They include storage payments by intervention agencies to private holders and purchase by intervention agencies of grain at the reference price. The 1983/84 intervention price was $4.39/bushel and the reference price was$ 5.10/bushel.

The United States has brought cases against the EC under the GATT dispute settlement procedures regarding wheat flour and pasta products that receive EC export restitutions. The United States believes that EC export restitutions give the EC an inequitable share of world export trade in these products. One of the most controversial EC export programs in recent years is that which involves exports of wheat flour to Egypt. In response, the United States sold 1 million metric tons of wheat flour to Egypt in 1983 for about $160/ton, nearly $100 under the price in the United States

Individual EC members have their own export credit programs. For example, France has an export credit system that combines private and public financing. Credit insurance is provided by COFACE, a semi-public organization. Credit may be offered that would not be commercially available, or with automatic access to official finance credits, thus being easier to obtain than regular commercial credit.

Australian and Canadian programs

The Australian Wheat Board (AWB) and the Canadian Wheat Board (CWB) set domestic prices by buying and selling wheat in domestic and export markets. They were established to reduce competition among their producers for domestic and overseas markets and to coordinate marketing and stockholding decisions. They regulate the flow of grain to the market to attain price stability, preserve market shares, maximize revenue, and avoid high stock levels. 1/

Price-support programs.--Farmers are required to deliver their wheat to the Boards. 2/ Australian farmers are paid by a guaranteed minimum price (GMP) based on an averaged pooled price for wheat sold in a given season. 3/ Since internal market prices fluctuate less than world prices, the adjustment of domestic consumers to changes in the international market is dampened. The pooling of returns from domestic and export sales stabilizes prices received by farmers, thus affecting decisions to expand or contract output.

1/ Robert Bain, Changes in the International Grain Trade in the 1980's, U.S. Department of Agriculture, July 1981.

2/ Australian farmers may deliver wheat to end users subject to AWB approval.

3/ Australia's GMP fluctuations are limited to 15 percent annually, thus reducing income uncertainty. The 1982-83 GMP price was A$141.32/ton and in 1983-84 A$150/ton. It is set at 95 percent of the average combined estimated returns from the current and two preceding pools. The level of Government assistance depends on the relationship between the GMP and net pool returns from wheat sales. It is a function of the quantity of wheat in the season's pool and the determined deficiency per ton. There are no limits on the amount of wheat that may be delivered to the AWB. There has been no Government payment to meet shortfalls in AWB sales revenue since the 1972/73 season.

The Canadian Government sets initial delivery payments for the basic grades of wheat 1/, oats, and barley each crop year. 2/ These initial payments are Government guaranteed floor prices payable to producers upon delivery, since any deficit incurred by the CWB in its marketing operations is paid by the Government. 3/

The Boards in Australia and Canada direct all stages of marketing. Both may impose marketing restrictions that could reduce production, although in the past, the AWB has been reluctant to do so, except in extreme surplus situations. Both the AWB and producer organizations are strongly averse to production controls. 4/ Over much of their existence, both Boards have been able to operate under the assumption that the U.S. crop program, including land diversions, loan rates, and stockpiling, will provide a basic level of stability to world markets.

The Boards have statutory authority over exports of all wheat and wheat products. Australia's sales to other governments are its most important sales, important sales, accounting for about 60 percent of annual exports. When grain is exported to private markets, the AWB may sell to grain merchants who then sell as principals to overseas buyers. Australia has about 3 million tons committed to long-term agreements and another 1 million in annual repeating contracts. The AWB's commitments under long-term agreements are limited to less than 30 percent of available exports because the country has a history of variable production.

In 1981, Canada and the U.S.S.R. entered into a bilateral agreement in which the Soviets will purchase a minimum of 25 million tons of grain over a 5-year period. Under the terms of the agreement, the Canadian Government provided CAN$1 billion in guaranteed commercial credit to finance the sale. Canada also has long-term trade agreements for grain sales with China, Brazil, Algeria, Jamaica, Mexico, East Germany, Poland, and other countries.

1/ Canada's initial wheat payment was $3.75/bushel in 1983/84.

2/ Prices are set according to current and prospective market conditions. When a deficit in a pool account occurs, Government payment is made to the CWB with the benefit accruing to producers in the CWB-designated area who have grown grain under the particular pool account. Revenues earned by the CWB during the marketing year from the sale of each grain are pooled; any surplus above initial payments and marketing costs is distributed proportionately to producers as a final payment. Few payments have been necessary to cover deficits during the history of the program.

3/ Canada's Agricultural Stabilization Board must support prices of corn, barley, and oats (and soybeans) grown outside the CWB area. Support prices are set at a minimum of 90 percent of the previous 5-year average market price, indexed for changes in the cash costs of production. Other commodities, such as wheat, may receive similar support. Payments are to help stabilize producer incomes and minimize the impact of short-term price shocks. Few payments have been made from this program in recent years.

4/ Bain, op. cit., p. 13.

Export programs.--The AWB provides extended payment terms to certain countries. The Government's Export Finance and Insurance Corporation (EFIC) provides export credit insurance to the AWB. AWB negotiates package deals with EFIC for unilateral coverage against government defaults and sharp changes in currency rates. AWB sales on credit terms are most frequently to China, Egypt, and Pakistan and covered by the EFIC. Recently, Australia has undertaken an aggressive marketing campaign and has increased its credit guarantees for wheat purchases.

The Canadian Government provides guarantees for medium-term credit offered by the CWB. The Government establishes eligible countries and liability limits for each. The CWB borrows from commercial banks, but does not extend a loan without a government guarantee. The interest rate for this credit is set at one quarter percent below the prevailing prime rate. Credit is also extended on a variable rate basis due to the fluctuations of interest rates. All interest costs are paid by the customer and the repayment period is up to 3 years. CWB does not subsidize interest rates, but does offer credit at commercial rates to some countries that might not be able to secure such credits, due to the government guarantees. Credits have been extended to the Soviet Union, China, Poland, and Brazil. Finally, to assist Canadian farm exports, a new crown corporation, the Canadian Agricultural Export Corporation (CANAGREX), was established to arrange financing for potential importers and to participate in state trading.

Other Canadian grain programs.--Under the Western Grain Transportation Act, the Federal Government provides assistance with transport costs incurred in shipping grains and oilseeds from the Prairie provinces to export terminals on the coasts (which are feed deficit areas). Maximum annual levels are set for the producers' share. Expenditures during 1982-83 were CAN$13.8 million for the shipment of 1.7 million tons of grain. The average expenditure per ton was CAN$8.02.

The Government allows cash advances payments for grain producers in direct relationship to anticipated deliveries for the crop year while ensuring repayment at the same rate when the grain is delivered. Under the Prairie Grain Advance Payments Act, the Government provides cash advances of a portion of the guaranteed minimum grain prices. Advances are made for farm-held grain to be repaid on delivery of the grain to the CWB. Rates during 1982-83 were CAN$115/ton for wheat; CAN$73/ton barley; and CAN$60/ton oats. Advances made to producers amounted to CAN$309 million in 1982-83. The Government bears the interest on money advanced and assumes liability for defaulted advance accounts. Administrative costs are borne by the producers through a charge on the CWB's pool accounts. Interest costs paid by the Federal Government for 1982-83 amounted to CAN$11.6 million.

Argentina's programs

The National Grain Board (NGB) administers the Government's price support program for grains, manages State-owned storage facilities including port elevators, collects export taxes and special-purpose levies, issues export licenses, and sets export quotas when necessary. 1/

Price-support program.--A pricing program that establishes a fixed margin between international and domestic prices was put in place in 1977. Producers of major grains are guaranteed 80-85 percent of the export f.o.b. price. Wheat is covered by a reference price, or the price producers receive for grain delivered to the NGB, that may be adjusted when export prices change but to no less than 85 percent of the export price. 2/ Reference prices change weekly and are based on the average market price of the three previous days in various domestic markets. This policy prevents export traders from bidding domestic prices too far below the international price, but at the same time does not put a floor under domestic prices.

Export and marketing programs.--The Government negotiates Argentina's bilateral trade agreements but such sales may be fulfilled by the NGB or by private exporters. The NGB currently has bilateral grain agreements with Algeria, Czechoslovakia, Haiti, Angola, and the USSR all of which expire in 1985.

In 1984, Argentina and Brazil signed an agreement to encourage free two-way trade, which could reduce future sales of U.S. grain to the Brazilian market. The agreement covers a number of commodities, including wheat, rice, corn, and sorghum. The agreement calls for, among other things, preferential treatment for their products over third countries--for commercial and government purchases; easier flow of two-way agricultural trade; equal tariffs between the two by product; and abolishment of administrative controls in the release of export/import permits.

The Government uses export taxes to increase or decrease exports. It also has an export registration system on private trade to ensure adequate domestic supplies. If actual exports by an exporter fall to less than 90 percent of what was registered, a fine of 15 percent of the value of the difference between the 90 percent registration level and actual shipments is incurred. 3/ To generate additional public revenues and prevent windfall profits, the Government imposed taxes of 25 percent on unprocessed crop exports in 1982.

1/ Myles Mielke, Argentine Agricultural Policies in the Grain and Oilseed Sectors, U.S. Department of Agriculture, Economic Research Service, September 1984.

2/ Mielke, op. cit.

3/ The 1979 Grains Law established that grain export facilities could be owned and handled by private operators. Previously, the AGB was the sole owner and operator of all port elevators.

Thailand's programs

Rice is Thailand's major farm export crop. The main Government programs that have had an important influence on rice production are the development and release of new varieties and construction of irrigation and drainage projects. The private sector has generally met farmers' demands for most other support services. Rice farmers are aided by the Government through small supports on fertilizer costs.

Price-support programs.--Since rice is both a major staple and export crop, the Government intervenes to a significant extent in the pricing and marketing of Thai rice. The Government's pricing policy aims to obtain higher producer prices for increased production and exports and to stabilize domestic prices to benefit consumers and producers. Paddy rice prices are supported by the Government through the Marketing Organization for Farmers (MOF). Its annual goal is to maintain commercial paddy sales at or above support levels and to provide rice for public distribution. Exporters are required to sell a fixed quantity of rice to the Government for every ton they export and at a price below the Bangkok wholesale price. This rice is then sold at well below prevailing retail market prices. 1/

Export programs.--The single most important Government intervention in the Thai farm sector has been the exceptionally high rate of taxation on rice exports. 2/ Export taxes are used to stabilize domestic prices at below world price levels, thus protecting urban consumers from higher world prices. 3/ Rice exports are heavily taxed through three measures: (1) the rice premium (a fixed export fee); (2) the export tax (a 5 percent ad valorem measure); and (3) the reserve requirement. Rice export taxes account for about 2-3 percent of total Government revenues. Due to the competitive nature of rice marketing, the impact of a high level of export taxation has been to lower farm prices. Since 1974, some proportion of the export taxes collected has been redistributed to farmers to alleviate the impact of lower farm prices. Also, the Farmers' Aid Fund has used revenue allocations to subsidize fertilizer sales by the MOF.

Most of the demand for farm credits have been satisfied by the private sector at interest rates of up to 50 percent annually, reflecting the high risk involved. 4/ Credit is available from the Bank for Agriculture and Agricultural Cooperatives to pay for inputs into rice production. 5/

1/ Thailand Program and Policy Priorities for an Agricultural Economy in Transition, The World Bank, December 1982, p. 6. In 1981, the Government undertook a farm price stabilization program in which it purchased large amounts of rice as a part of a buffer stock to support farm-gate prices at target levels. The types of rice acquired were low grade at high prices (relative to world prices) and the costs of maintaining and disposing of the rice were expected to be high.

2/ Thailand: Toward a Development Strategy of Full Participation, The World Bank, March 1980.

3/ Ibid., p. 97.

4/ Thailand: Toward a Development Strategy, op. cit., p. 94.

5/ Thailand Program and Policy Priorities, op. cit., p. 6.

The Department of Foreign Trade requires that exporters be members of the Rice Exporters Association (REA). Registered exporters have export quotas, enforced through licensing, although additional quotas may be purchased from other members. The Government requires that, for every ton of rice shipped, the exporter must sell one-half ton of specified grades of rice to the Public Wharehouse Organization at Government- set prices. This rice is then available for government-to-government sale or for release to the public for maintaining low consumer prices. REA members must maintain rice stocks in proportion to their level of export business. 1/

The responsibility for marketing falls mostly on the private sector. The Ministry of Commerce conducts negotiations for bilateral trade agreements for rice with foreign countries.

China's programs

Higher State prices paid to farmers, incentives that tie income more closely to productivity, rural economic reforms, modernization, greater freedom for individual farmers, and self-sufficiency goals, have increased domestic farm production and decreased farm imports. China has reduced grain imports by not renewing bilateral trade agreements or by not fulfilling purchasing obligations under them.

In China's nonmarket economy, the Government is the monopoly buyer and seller of grains for domestic consumption or export (aside from a small free market for internal consumption). While free market techniques are being introduced into the farm economy, farmers still deliver most of their grain to the Government for payment. Farmers must meet certain State production quotas (and pay commune and tax levies), but any production above quotas is retained by the farmer.

Since the State imports grain, the impact of import restrictions, for example, in the form of levies, is not pertinent. However, by using State policy, such as raising prices received by farmers, the Government may increase domestic production to ease out imports. Most of China's grain imports are organized around bilateral trading arrangements. Under the terms of the U.S.-Chinese Long-Term Grain Agreement, in effect from 1981 to 1984, China was to purchase and the United States was to make shipments of 6 to 8 million metric tons of U.S. grain annually. Chinese purchases of U.S. grain during the last two years of the agreement fell drastically short due to bumper harvests, China's reaction to new U.S. country-of-origin rules for textiles and clothing imports, and the strength of the dollar relative to other currencies which made purchases from Australia, Argentina, Canada, and the EC more attractive.

1/ Jabara, op. cit., p. 22.

China had long-term wheat-purchasing agreements with Australia and Argentina that expired at yearend 1984. Renewal was not made, owing to reasons similar to those which caused the expiration of the U.S.-Chinese accord. China's agreement to purchase 500,000 to 700,000 metric tons of EC wheat expired in July 1983 and was not renewed. China's grain agreement with Canada expires in 1985.

Soviet Union's programs

Soviet trade is controlled through economic planning and regulatory organizatons under the Council of Ministers. Export and import targets are set by the foreign trade section of the State Planning Committee (GOSPLAN). Actual trade operations are conducted by Foreign Trade Organizations (FTOs) that enter into contracts with exporting firms and Governments. FTO's, under the jurisdiction of the Ministry of Foreign Trade, have exclusive control over exports and imports in their jurisdictions. EXPORTKLEB, an FTO, has control over grain imports and exports.

Because pricing and marketing of grains and other farm products is a function of an FTO and internal prices are established by planners according to production plans and do not reflect actual supply and demand conditions, world prices and Soviet prices are not related. 1/

Bad weather and other problems in the Soviet agricultural system itself have resulted in large production shortfalls under State plans. As a result, the Soviets have imported large quantities of grains through bilateral trading arrangements in recent years. Under these arrangements, the Soviets are committed to purchasing about 20 million metric tons of grain from the world market. Approximately 90 percent of Soviet grain is imported from countries with whom the Soviets have grain agreements.

The bulk of the Soviet Union's trade under long-term bilateral agreements has been with the Council for Mutual Economic Assistance (CEMA) countries. The Soviet Union has a 5-year agreement with with Argentina to purchase 22.5 million metric tons of corn, grain sorghum, and soybeans and an agreement with Canada to purchase a minimum level of 5 million metric tons of grains. The U.S.-Soviet Grains Agreement, which has been extended annually since 1981, requires the Soviet Union to purchase a minimum of 6 million metric tons of corn and wheat annually in roughly equal quantities. It allows the Soviets to purchase up to 8 million metric tons if needed subject to certain conditions. The 1983 agreement had a minimum import commitment between 8 to 9 million metric tons of grain.

1/ Jabara, op. cit., p. 14.

Japan's programs

Wheat trade is under complete State control. Imports must be licensed by the Japanese Food Agency and are sold to the Government at port. Through quota arrangements the Government determines the quantities to be imported annually. State trading arrangements protect the Japanese wheat pricing and marketing system. 1/ The Government purchases all wheat offered on the market at fixed producer prices that are higher than world prices. Government control over home-grown wheat was relaxed in 1976. Since the Government's purchase price is higher than the resale price, almost all domestic wheat is still sold to the State. The Government sells domestic and imported wheat at an established resale price determined annually. Japanese rice producer prices are much higher than world prices and have in the past stimulated production in excess of domestic demand. However, Japan's current rice policy has resulted in reducing excess production.

Rice producers who divert paddy fields to wheat production receive a diversion payment. This is part of a Government program to reduce rice surpluses. Farmers receive a payment for every hectare of paddy land diverted to wheat production. Farmers who grow wheat in rotation with rice receive an additional bonus payment. Rice producers also receive payments to divert paddy land to production of barley. The Japanese Food Agency has bilateral wheat arrangements with the United States, the CWB, and the AWB that set annual purchase levels. It also has informal annual arrangements with Canada and Australia to purchase barley.

Brazil's programs

Wheat imports into Brazil are under complete State control. The Wheat Marketing Office of the Bank of Brazil has sole authority for purchase and resale all domestic and imported wheat. Import quantities are based on projected import requirements and are controlled through import licensing. State trading arrangements protect Brazil's minimum support price system for wheat whereby the Government establishes fixed prices well above world market prices. The Government operates a dual pricing system that maintains resale prices to flour mills at below producer and import prices. 2/

1/ Jabara, op. cit., p. 5. Barley imports are subject to the same State trading arrangements as wheat. Corn is usually imported by private industry without Government interference. The Government purchases all barley offered at the support price or farmers may contract to sell on local markets. A dual price system is followed whereby resale prices are lower than the producer support prices. Corn production is minimal and there are no support prices.

2/ For more information see Brazil: A Review of Agricultural Policies, The World Bank, 1982.

Egypt's programs

The Egyptian Ministry of Supply is the monopoly importer of wheat and wheat flour. Imported wheat is supplied to mills at subsidized prices. Prices and profit margins are fixed throughout the distribution chain. Domestically produced wheat is sold on two markets, one State controlled and the other a free market. State control of the market is implemented through compulsory sales at prices below the free market level which are collected by agricultural cooperatives. Producers' membership in the cooperatives is mandatory. 1/ Egypt has a 3-year agreement with Australia to supply 1 million tons of wheat annually.

Republic of Korea's programs

There are three agencies set up by the Government to import grains into Korea. The Korean Flour Mills Industry Association (KOFMIA) imports wheat; the Livestock Industry Development Corporation imports feedgrains (mostly corn); and the Office of Supply (OSROK) secures rice imports.

Import targets for wheat and feedgrain imports are set by the Ministry of Agriculture and Fisheries and flucuate with changes in domestic supply and demand. Support prices for corn and barley are set annually and are usually higher than market prices. Feed compounders purchase imported corn at a price set by the Government that can be higher or lower than world market prices. Any difference is paid out of the Formula Feed Price Stabilization Fund which is set up to stabilize prices of imported corn. The price of corn from Government stocks is usually higher than the producer support price and the import price. Corn sold to feed processors from Government stocks is subsidized from the Formula Feed Price Stabilization Fund. Resale prices of barley from Government stocks are lower than producer prices. There are no tariffs on barley or feedgrains.

Support prices for the limited domestic wheat production are set annually by the Grains Management Fund (GMF) and are usually higher than the world market price. Government-purchased wheat is sold to flour mills at release prices lower than the producer support price. The difference is absorbed by the GMF. Imported wheat is sold at a Government-established import price. When import prices are above this price, the difference is paid by the Flour Price Stabilization Fund which was set up by the Government to stabilize wheat import prices. Similarly, when imported prices are below this estabished price, flour millers pay the difference into the fund.

The National Agricultural Cooperative Federation (NACF) distributes imported rice to retailers at official release prices. Rice is purchased from Korean farmers at prices established by the GMF. Farmers may sell rice to the Government, to cooperatives, and/or on the free market. Government-purchased rice is placed in storage and stocks are released to reduce seasonal price

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1/ Jabara, op. cit., p. 7.

fluctuations. The prices producers receive from the Government for paddy rice are often lower than the free market price, as the Government purchases primarily high-yielding varieties that are less preferred.by consumers. Government-supplied rice is sold to consumers at prices below free market levels. The bulk of free market rice is from traditonal varieties preferred by Koreans. Rice imports are subject to a customs duty. 1/

Mexico's programs

Committees consisting of representatives from the National Public Supply Company (CONSUP), the Ministry of Commerce, and private trade organizations buy and import all grains. CONSUP handles imports of certain quantities of grains to supply small processors and firms under public management and when government-to-government purchases are required. Rye, barley, and oat imports are subject to ad valorem tariffs and surcharges. Import licenses are required. CONSUP administers price supports for corn, grain sorghum, and barley. Coarse grains sold to feed compounders by CONSUP are subsidized by the Government. Prices have been set at about 80 percent of producer support prices. 1/

Taiwan's programs

The Government annually sets a support price for corn. Farmers sell domestic corn at the support price to farm cooperatives which then sell it at prices that are usually lower than the market price to the feed mill members of the cooperative. The difference between prices paid to farmers and the cooperatives' receipts from sales to feed mills is provided by the Taiwan Grains and Oilseed Foundation, a private body chaired by a government official. The Board of Foreign Trade (BFT) has a corn equalization fund to stabilize prices of imported feedgrain to farmers. If the price of imported corn is below the base price set by the BFT, the importer contributes the difference to the Fund. Conversely, if the import price is above the base price, the Fund pays the importer the difference. Imports into Taiwan have been generally free of State regulation. Importers pay a small duty on rye, barley, and oats and a port tax. Taiwan has bilateral trade agreements for corn with the United States, Thailand, South Africa, and Uruguay. 2/

1/ Jabara, op. cit., p. 11.
2/ Jabara, op. cit., p. 13.

Oilseeds and Products

The products described in this section include oilseeds (such as soybeans, sunflowerseed, flaxseed, peanuts, and cottonseed); vegetable oils derived from oilseeds (including soybean oil, peanut oil, cottonseed oil, linseed oil, palm oil, coconut oil, rapeseed oil, and olive oil); animal fats (such as tallow, lard, and inedible greases), 1/ and oilseed or protein meals (such as soybean meal, cottonseed meal, linseed meal, and fish meal). Oilseeds are processed (reduced) into two coproducts: vegetable oils, used primarily for food and secondarily as a raw material for manufacture of chemicals, and oilseed meals, used chiefly as animal feed ingredients for poultry, hogs, and cattle. Vegetable oils and edible animal fats (collectively referred to as fats and oils) are consumed mainly in the form of salad and cooking oils, shortening, margarine, or as hidden fats contained in prepared foods such as potato chips, candy, cookies, or other products sold directly to consumers.

World

Overall pattern.--The United States and other developed countries have relatively high per capita consumption of food fats and oils, which ranged during crop year 1979/80 to 1983/84 from an average 52 pounds in the United States to 32 pounds in Japan. 2/ Less developed countries have considerably lower consumption of fats and oils, such as in India, with its annual average of 12 pounds per capita during the same period. Consumption of meat, dairy, and poultry products tends to be concentrated among the developed and nonmarket economy countries, and as a result, much of the demand for both imported and domestic oilseed and protein meals also occurs in those countries. And, although consumption of fats and oils is also high in the developed countries, so is their self-sufficiency in domestic production of fats and oils. Hence, international trade in vegetable oils and animal fats goes mainly to the developing countries with low per capita consumption and with relatively low production levels of fats and oils, but without the economic means to sustain high meat or dairy consumption. The Soviet Union is also a sizable importer of vegetable oils, oilseeds and oilseed meals, being a deficit producer of all three commodities.

The United States and a number of other countries, notably Brazil, Argentina, Malaysia, the Philippines, Canada, and those in the EC, dominate the world production and export of oilseeds, oilseed meals, and vegetable oils and animal fats. During crop years 1979/80 to 1983/84, about 20 percent of the average annual world production of 168 million metric tons of oilseeds, 30 percent of the 95 million tons of oilseed meals, and about 32 percent of the

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1/ Butter is discussed separately in this report under "Dairy Products."

2/ These consumption figures exclude butter. See U.S. Department of Agriculture, "World Vegetable and Marine Oils: Disappearance and Imports," Foreign Agriculture Circular on Oilseeds and Products, November 1984, pp. 30-39.

42 million tons of major vegetable and marine oils were exported to foreign markets (tables 59-61). Soybeans (and their products) are the dominant oilseed produced and traded in the world and account for about one-third of world production of all oilseeds, over one-half of that of oilseed meals, and about one-third of that of vegetable oils (tables 62-64).

Among world import markets, trade in oilseeds and products is largely divided between two groups of countries: those that import mostly only oilseeds and oilseed meals largely to satisfy their needs for animal feedstuffs and those that import mostly vegetable oils for food. The EC, 1/ Japan, Eastern Europe, and the Soviet Union are the leading importers of oilseeds and oilseed meals. Excluding intra-EC trade, India, Pakistan, and the Soviet Union are the principal importers of imported vegetable oils. Some countries, such as Spain and the EC, import oilseeds, process them into meal and oil, and then export the oil while retaining the meal for domestic consumption.

The United States, which since World War II enjoyed hegemony among oilseed exporting countries, has been encountering stiff competition since the mid-1970's, particularly from Brazil, Argentina, and Malaysia. The volume of Brazil's soybean meal exports rose by 40 percent, and intensified competition in traditional U.S. markets of the EC and Eastern Europe during crop years 1979/80 to 1983/84 (table 63). Similarly during this period, Argentina increased its exports of soybeans by 30 percent, of soybean meal by 714 percent, and of soybean oil by 238 percent (tables 62-64). Meanwhile, Malaysia, which accounted for nearly three-quarters of world palm oil exports during the 5 years, increased its palm oil exports by slightly over 25 percent to nearly 3 million metric tons in crop year 1983/84.

From crop years 1979/80 to 1983/84, world prices of oilseeds and products (which are denominated in U.S. dollars) rose irregularly to a peak in crop year 1980/81 (a year of weather-reduced supplies), declined in the 2 following years, and then rebounded to record or near record levels in crop year 1983/84 (tables 65-67). However, the average prices of oilseeds and products rose only slightly above those during the preceding 5-year period; for example, the U.S. soybean price at Chicago averaged $248 per metric ton during 1979/80 to 1983/84 or about 6 percent above the $234 average price during the preceding 5 years of 1974/75 to 1978/79. U.S. soybean, soybean oil, and soybean meal prices set the dominant trend for world prices of these oilseed products, and competitive foreign or domestic oilseed products are priced at an appropriate discount or premium, depending on the type of product, its quantity and quality, and its transportation basis.

Major shifts.--World production of the principal oilseeds rose from 170 million metric tons in crop year 1979/80 to a record 178 million tons in crop year 1982/83, but then dropped to 166 million tons in crop year 1983/84 (table 59). Soybeans were responsible for most of the fall and rise in world oilseed output, with the United States, Brazil, and Argentina together accounting for most of the changes in soybean production (tables 62-64).

1/ The EC is the largest market for vegetable oil, although much of this trade is actually intra-EC trade.

Table 59.—Major oilseeds: World production, exports, imports, crush, and ending stocks, crop years 1979/80 to 1983/84

(In thousands of metric tons)

Commodity	1979/80	1980/81	1981/82	1982/83	1983/84
Production:					
Soybean	93,729	80,940	85,998	93,296	81,952
Cottonseed	25,115	25,577	28,172	27,378	26,962
Peanut	17,070	16,158	19,929	17,286	18,706
Sunflowerseed	15,231	13,075	14,762	16,523	15,492
Rapeseed	10,081	11,107	12,372	14,783	14,267
Flaxseed	2,687	2,096	2,086	2,570	2,212
Copra	4,555	4,986	4,739	4,467	4,061
Palm kernel	1,481	1,545	1,883	1,794	2,026
Total	169,949	155,484	169,941	178,097	165,678
Exports:					
Soybean	29,136	25,343	29,321	28,563	26,078
Cottonseed	219	226	145	112	195
Peanut	1,179	1,133	997	1,028	1,028
Sunflowerseed	2,268	1,936	2,115	1,922	1,949
Rapeseed	2,102	2,305	2,142	2,390	2,528
Flaxseed	577	610	481	505	680
Copra	476	421	468	276	284
Palm kernel	210	157	154	139	146
Total	36,167	32,131	35,823	34,935	32,888
Imports:					
Soybean	27,428	26,362	29,203	28,236	24,886
Cottonseed	203	195	126	114	153
Peanut	947	1,087	1,065	969	976
Sunflowerseed	2,076	1,979	2,291	1,875	1,920
Rapeseed	2,403	2,366	2,216	2,520	2,538
Flaxseed	535	550	501	492	627
Copra	462	398	464	247	254
Palm kernel	160	133	120	140	142
Total	34,214	33,070	35,986	34,593	31,496
Crush:					
Soybean	74,758	71,868	74,336	78,009	72,545
Cottonseed	19,743	20,945	22,015	21,641	21,357
Peanut	10,443	9,505	12,105	10,418	11,156
Sunflowerseed	12,411	11,816	12,797	14,396	13,856
Rapeseed	8,714	10,478	11,988	13,819	13,508
Flaxseed	2,116	1,970	1,919	1,997	2,136
Copra	4,247	4,652	4,644	4,248	3,826
Palm kernel	1,283	1,346	1,636	1,713	1,908
Total	133,715	132,580	141,440	146,241	140,046
Ending stocks: 1/					
Soybean	12,854	16,245	14,940	17,065	12,573
Cottonseed	1,191	572	795	398	186
Peanut	602	544	770	572	578
Sunflowerseed	1,142	526	770	704	336
Rapeseed	1,708	1,489	909	779	298
Flaxseed	821	606	451	666	330
Copra	481	471	252	125	70
Palm kernel	77	80	147	83	91
Total	18,876	20,533	19,034	20,392	14,462

1/ Stocks data are not included for all commodities and in most cases are FAS estimates. Where no stocks data are available, changes are included in consumption.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Foreign Agricultural Service, as of January 1985.

Note.—Trade, consumption, and stocks data are aggregated using individual marketing years. In the case of soybeans, data for Argentina and Brazil have been converted to an October-September basis.

Table 60.—Major protein meals: World production, exports, imports, consumption, and ending stocks, crop years 1979/80 to 1983/84

(In thousands of metric tons)

Commodity	1979/80	1980/81	1981/82	1982/83	1983/84
Production:					
Soybean	59,459	56,874	59,101	62,050	56,724
Cottonseed	9,291	9,671	10,329	10,012	9,884
Rapeseed	5,206	6,254	7,278	8,337	8,269
Sunflowerseed	5,662	5,416	5,779	6,680	6,216
Fish	4,792	4,861	5,159	4,812	5,308
Peanut	4,170	3,976	5,041	4,346	4,694
Copra	1,425	1,557	1,550	1,438	1,301
Linseed	1,693	1,258	1,217	1,279	1,369
Palm kernel	666	705	864	900	984
Total	92,364	90,572	96,318	99,854	94,749
Exports:					
Soybean	18,996	18,849	20,724	23,283	20,804
Cottonseed	885	781	793	789	921
Rapeseed	520	805	834	679	1,034
Sunflowerseed	828	740	925	1,288	1,200
Fish	2,283	2,015	2,598	2,252	2,442
Peanut	986	658	645	620	547
Copra	918	978	1,041	990	690
Linseed	1/	609	637	692	705
Palm kernel	489	463	584	685	734
Total	25,905	25,898	28,781	31,278	29,067
Imports:					
Soybean	17,855	18,957	20,985	23,107	20,318
Cottonseed	788	834	762	829	869
Rapeseed	640	636	683	871	1,021
Sunflowerseed	919	843	922	1,215	1,294
Fish	2,097	1,959	2,243	2,150	2,082
Peanut	1,056	665	702	662	632
Copra	1,010	1,043	1,070	968	834
Linseed	1/	639	583	664	573
Palm kernel	507	511	617	732	655
Total	24,872	26,087	28,567	31,198	28,278
Consumption:					
Soybean	58,111	56,453	59,855	61,223	56,046
Cottonseed	9,182	9,665	10,288	10,183	9,847
Rapeseed	5,316	6,035	7,140	8,491	8,206
Sunflowerseed	5,760	5,502	5,784	6,604	6,327
Fish	4,612	4,458	5,057	4,763	4,937
Peanut	4,231	3,981	5,099	4,391	4,773
Copra	1,529	1,612	1,584	1,447	1,409
Linseed	1/	1,308	1,158	1,246	1,253
Palm kernel	674	759	879	962	893
Total	89,415	89,773	96,344	99,290	93,691
Ending stocks: 2/					
Soybean	1,591	2,392	1,899	2,550	2,742
Cottonseed	196	255	265	154	139
Rapeseed	149	199	186	224	274
Sunflowerseed	141	151	143	146	129
Fish	529	878	625	572	583
Peanut	39	26	25	22	23
Copra	46	56	51	20	56
Linseed	1/	23	28	33	27
Palm kernel	23	17	35	20	32
Total	2,714	3,997	3,257	3,741	4,010

1/ Not available.

2/ Stocks data are not included for all commodities, and in most cases are estimates. Where no stocks data are available, changes are included in consumption.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Foreign Agricultural Service, as of January 1985.

Note.—Trade, consumption, and stocks data are aggregated using individual marketing years. In the case of soybeans meal, data for Argentina and Brazil have been converted to an October-September basis.

Table 61.—Major vegetable and marine oils: World production, exports, imports, consumption, and ending stocks, crop years 1979/80 to 1983/84

(In thousands of metric tons)

Commodity	1979/80	1980/81	1981/82	1982/83	1983/84
Production:					
Soybean	13,236	12,849	12,984	13,781	12,937
Palm	4,829	5,168	6,003	5,623	6,285
Sunflowerseed	5,007	4,741	5,152	5,798	5,625
Rapeseed	3,365	4,051	4,593	5,268	5,131
Cottonseed	3,145	3,219	3,465	3,366	3,346
Peanut	3,094	2,736	3,504	3,030	3,193
Coconut	2,638	2,895	2,865	2,679	2,404
Olive	1,599	1,921	1,337	1,908	1,634
Fish	1,208	1,149	1,313	1,122	1,278
Palm kernel	578	598	724	762	846
Linseed	1/	687	627	661	721
Total	38,699	40,014	42,567	43,998	43,400
Exports:					
Soybean	3,620	3,343	3,500	3,740	3,725
Palm	3,736	3,416	3,925	3,977	3,883
Sunflowerseed	1,088	1,180	1,186	1,557	1,476
Rapeseed	643	824	822	837	949
Cottonseed	415	451	537	391	308
Peanut	446	280	406	464	260
Coconut	1,204	1,338	1,246	1,307	886
Olive	283	267	204	345	269
Fish	782	820	786	758	954
Palm kernel	370	383	449	477	533
Linseed	1/	272	252	282	291
Total	12,587	12,574	13,313	14,135	13,534
Imports:					
Soybean	3,161	3,414	3,521	3,698	3,593
Palm	3,380	3,156	3,606	3,849	3,781
Sunflowerseed	860	1,001	1,021	1,303	1,406
Rapeseed	571	741	750	755	976
Cottonseed	455	470	509	369	353
Peanut	491	327	390	453	316
Coconut	1,122	1,401	1,236	1,232	900
Olive	266	260	296	400	335
Fish	778	712	781	717	739
Palm kernel	394	374	443	507	487
Linseed	1/	277	235	212	195
Total	11,478	12,133	12,788	13,495	13,081
Consumption:					
Soybean	12,381	12,831	13,273	13,666	13,137
Palm	4,454	4,932	5,425	5,907	6,054
Sunflowerseed	4,656	4,521	5,061	5,488	5,637
Rapeseed	3,285	3,980	4,521	5,180	5,116
Cottonseed	3,148	3,259	3,423	3,341	3,444
Peanut	3,149	2,806	3,483	3,022	3,253
Coconut	2,571	2,994	2,670	2,632	2,422
Olive	1,659	1,663	1,593	1,641	1,863
Fish	1,064	1,112	1,261	1,093	1,127
Palm kernel	592	603	720	814	797
Linseed	1/	681	611	587	620
Total	36,973	39,381	42,241	43,371	43,475
Ending stocks: 2/					
Soybean	1,446	1,704	1,436	1,509	1,177
Palm	634	602	861	449	578
Sunflowerseed	243	284	210	266	184
Rapeseed	159	147	147	153	195
Cottonseed	114	94	103	111	58
Peanut	63	42	47	44	35
Coconut	261	227	212	184	180
Olive	613	864	700	1,022	859
Fish	309	231	278	266	202
Palm kernel	73	59	57	35	38
Linseed	1/	43	42	46	51
Total	3,917	4,297	4,098	4,085	3,537

1/ Not available.

2/ Stocks data are not included for all commodities, and in most cases are FAS estimates. Where no stocks data are available, changes are included in consumption.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Foreign Agricultural Service, as of January 1985.

Note.—Trade, consumption, and stocks data are aggregated using individual marketing years. In the case of soybean oil, data for Argentina and Brazil have been converted to an October-September basis.

Table 62.—Soybeans: World production, exports, imports, crush, and ending stocks, crop years 1979/80 to 1983/84

(In thousands of metric tons)

Item	1979/80	1980/81	1981/82	1982/83	1983/84
Production:					
United States	61,722	48,921	54,135	59,610	44,518
Brazil	15,156	15,200	12,835	14,750	15,400
Argentina	3,600	3,500	4,150	4,000	6,200
Paraguay	575	600	600	520	550
China	7,460	7,940	9,325	9,030	9,765
All other	5,216	4,779	4,953	5,386	5,519
Total	93,729	80,940	85,998	93,296	81,952
Exports:					
United States	12,818	19,712	25,285	24,634	20,148
Brazil	1,239	1,798	858	1,307	1,591
Argentina	2,309	2,700	1,876	1,417	3,011
Paraguay	415	630	830	610	430
EC-10	302	143	118	276	700
All other	298	360	354	319	198
Total	28,381	25,343	29,321	28,563	26,078
Imports:					
EC-10	12,277	10,176	12,352	11,804	9,104
West Germany	3,901	3,080	3,680	3,525	2,400
Netherlands	3,553	2,938	3,105	2,960	2,801
Belgium-Luxembourg	910	1,098	1,510	1,601	1,350
Italy	1,393	1,131	1,460	1,584	1,087
Other Western Europe	3,883	3,516	4,076	4,299	3,879
Spain	3,100	2,790	3,196	3,040	2,700
Portugal	783	250	414	724	700
U.S.S.R	1,085	1,394	1,477	1,055	1,000
Eastern Europe	852	517	479	716	706
Romania	303	81	228	213	325
Yugoslavia	205	238	175	260	245
Poland	278	156	45	220	70
Japan	4,401	4,213	4,486	4,871	4,728
Republic of Korea	1/	529	541	695	710
Taiwan	939	1,075	1,170	1,272	1,300
Indonesia	1/	361	361	391	400
Mexico	783	1,370	566	1,070	1,442
Brazil	367	1,070	1,235	80	3
All other	2,734	2,141	2,460	1,983	1,614
Total	27,321	26,362	29,203	28,236	24,886
Crush:					
United States	30,573	27,773	28,032	30,155	26,753
Latin America	12,608	16,723	16,249	17,884	18,158
Brazil	10,591	13,828	12,829	13,678	12,512
Argentina	714	935	1,341	2,106	2,982
Mexico	1,303	1,500	1,500	1,450	1,950
EC-10	11,521	10,227	11,453	10,987	8,939
Other Western Europe	3,327	3,521	4,132	4,304	3,884
Spain	3,103	2,850	3,200	3,040	2,710
Portugal	224	221	443	727	690
U.S.S.R	1,285	1,667	1,674	1,340	1,350
Eastern Europe	1,450	1,086	940	1,308	1,264
Asia	7,621	8,970	9,903	9,993	10,187
Japan	3,453	3,462	3,564	3,846	3,832
China	3,336	3,430	4,031	3,618	3,750
Taiwan	832	865	1,011	1,080	1,080
All other	3,949	1,901	1,923	2,038	2,010
Total	72,334	71,868	74,336	78,009	72,545
Ending stocks:					
United States	9,770	8,519	6,926	9,379	4,757
Brazil	4,980	5,256	4,744	3,609	3,929
Argentina	1,008	676	1,390	1,618	1,535
All other	2,271	1,794	1,880	2,459	2,352
Total	18,029	16,245	14,940	17,065	12,573

1/ Not available included under "All other."

Source: Compiled from official statistics of the U.S. Department of Agriculture, Foreign Agricultural Service, as of January 1985.

Table 63.—Soybean meal: World production, exports, imports, consumption, and ending stocks, crop years 1979/80 to 1983/84

(In thousands of metric tons)

Item	1979/80	1980/81	1981/82	1982/83	1983/84
Production:					
United States	24,585	22,055	22,348	24,235	20,646
Latin America	1/	12,913	12,632	13,879	14,067
Brazil	8,125	10,615	9,945	10,600	9,702
Argentina	559	724	1,034	1,703	2,369
Mexico	1,016	1,210	1,192	1,060	1,425
EC-10	9,307	8,210	9,295	8,769	7,130
Other Western Europe	2,620	2,795	3,264	3,416	3,071
Spain	2,436	2,251	2,528	2,417	2,140
Portugal	184	184	345	580	550
U.S.S.R	939	1,267	1,272	1,023	1,026
Eastern Europe	1,148	856	738	1,030	998
Asia	6,184	7,285	8,043	8,086	8,218
Japan	2,693	2,702	2,778	2,995	2,956
China	2,842	2,922	3,434	3,083	3,195
Taiwan	649	675	799	853	853
All other		1,493	1,509	1,612	1,568
Total	57,614	56,874	59,101	62,050	56,724
Exports:					
United States	7,196	6,154	6,266	6,449	4,931
Brazil	5,493	7,740	8,347	8,239	7,706
Argentina	258	408	736	1,547	2,100
EC-10	3,570	3,811	4,261	5,302	4,152
Spain	1/	93	277	482	640
China	1/	170	245	590	550
All other	739	473	592	674	725
Total	17,256	18,849	20,724	23,283	20,804
Imports:					
EC-10	9,421	9,486	11,874	11,931	11,148
Netherlands	1/	1,300	1,389	1,632	1,265
West Germany	1/	1,845	2,446	2,493	2,391
Italy	1/	828	1,465	1,285	1,046
France	1/	2,969	3,503	3,330	3,399
Other Western Europe	1/	1,083	961	1,090	1,317
U.S.S.R	440	966	1,103	2,812	600
Eastern Europe	4,002	4,164	3,352	3,162	2,975
Asia and Oceania	1/	1,145	1,263	1,418	1,332
Middle East and Africa	1/	662	918	1,029	1,357
Latin America	1/	1,004	982	1,115	1,005
All other	3,399	447	532	550	584
Total	17,855	18,957	20,985	23,107	20,318
Consumption:					
United States	17,430	15,958	16,071	17,515	15,914
Latin America	1/	5,253	4,996	4,918	4,821
Brazil	2,404	2,546	2,075	2,296	1,692
Argentina	318	293	208	158	200
Mexico	1,132	1,222	1,372	1,122	1,450
EC-10	15,296	13,851	16,870	15,335	14,257
Netherlands	1,850	1,738	1,981	1,663	1,800
West Germany	3,989	3,063	3,569	3,090	2,660
Italy	2,229	1,821	2,540	2,370	1,969
France	3,437	3,401	4,132	4,036	3,887
Other West Europe	1/	3,634	3,801	3,637	3,456
Spain	2,500	2,300	2,400	2,300	2,150
Portugal	452	501	494	457	440
U.S.S.R		2,233	2,375	3,835	1,626
Eastern Europe	5,183	5,020	4,090	4,162	3,932
East Germany	947	774	1,029	1,174	932
Poland	1,365	1,351	676	481	572
Asia and Oceania	1/	8,128	8,944	8,704	8,634
Japan	2,993	2,926	2,931	3,176	3,035
China	2,776	2,752	3,189	2,493	2,645
Taiwan	654	679	808	870	830
Republic of Korea	1/	369	474	714	576
Middle East and Africa	1/	1,206	1,416	1,679	2,023
All other	6,973	1,170	1,292	1,438	1,383
Total	58,111	56,453	59,855	61,223	56,046
Ending stocks: 1/					
United States	205	148	159	430	231
Brazil	763	1,092	615	680	984
Argentina	30	53	143	141	210
All other	879	1,099	982	1,299	1,317
Total	1,877	2,392	1,899	2,550	2,742

1/ Not available.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Foreign Agricultural Service, as of January 1985.

Table 64.—Soybean oil: World production, exports, imports, consumption, and ending stocks, crop years 1979/80 to 1983/84

(In thousands of metric tons)

Item	1979/80	1980/81	1981/82	1982/83	1983/84
Production:					
United States	5,491	5,112	4,980	5,462	4,932
Latin America	1/	3,110	2,995	3,285	3,317
Brazil	1,996	2,601	2,406	2,564	2,352
Argentina	121	158	219	346	489
Mexico	235	270	265	261	350
EC-10	2,042	1,829	2,007	1,911	1,584
Other Western Europe	1/	603	707	763	700
Spain	527	484	544	538	488
Portugal	1/	40	76	130	124
U.S.S.R	1/	283	280	228	225
Eastern Europe	254	186	165	226	220
Asia	1/	1,392	1,514	1,551	1,597
Japan	618	626	633	681	701
China	400	412	484	434	450
Taiwan	141	147	172	184	181
All other	943	334	336	355	362
Total	12,768	12,849	12,984	13,781	12,937
Exports:					
United States	1,220	740	942	918	823
Brazil	523	1,153	852	1,020	987
Argentina	111	64	120	274	375
EC-10	897	865	948	946	912
Spain	370	411	478	420	450
All other	86	110	160	162	178
Total	3,231	3,343	3,500	3,740	3,725
Imports:					
EC-10	492	456	522	519	526
U.S.S.R	52	141	178	181	75
Eastern Europe	197	238	170	270	174
India	660	639	460	537	750
Pakistan	220	219	304	310	350
Mid-east and N. Africa	537	735	790	776	683
Iran	1/	300	359	288	261
Morocco	1/	96	178	164	160
Turkey	1/	135	142	106	110
Tunisia	1/	77	50	88	55
Egypt	1/	92	20	75	45
Latin America	489	485	568	549	566
Brazil	127	3	12	10	54
Mexico	28	25	80	26	67
Chile	1/	76	75	104	80
Peru	1/	61	69	97	50
Colombia	1/	98	126	90	60
All other	541	501	529	556	469
Total	3,288	3,414	3,521	3,698	3,593
Consumption:					
United States	4,074	4,134	4,325	4,472	4,354
Latin America	2,133	2,450	2,530	2,593	2,577
Brazil	1,426	1,534	1,542	1,612	1,519
Argentina	12	76	84	72	80
Mexico	253	320	324	290	390
EC-10	1,571	1,477	1,596	1,494	1,260
Other Western Europe	1/	290	303	358	315
U.S.S.R	271	424	458	409	300
Eastern Europe	457	422	334	494	393
Asia	1/	2,402	2,424	2,507	2,707
Japan	616	632	686	687	697
China	500	485	515	444	450
Taiwan	139	143	176	187	189
Republic of Korea	1/	56	77	95	101
India	765	708	533	613	740
Pakistan	180	224	310	314	345
Bangladesh	1/	23	35	50	55
Mid-East and N. Africa	770	862	894	908	848
Iran	1/	300	359	288	261
Turkey	1/	129	131	125	116
Morocco	1/	98	170	148	176
All other	892	370	409	431	383
Total	12,368	12,831	13,273	13,666	13,137
Ending stocks 2/:					
United States	549	787	500	572	327
Brazil	368	285	309	251	151
Argentina	14	32	47	47	81
All other	661	600	580	639	618
Total	1,592	1,704	1,436	1,509	1,177

1/ Not available.

Source: Compiled from official statistics of the U. S. Department of Agriculture, Foreign Agricultural Service, as of Jan. 1985.

Table 65.--Oilseeds: Prices of selected oilseeds, crop years 1979/80 to 1983/84

(Per metric ton)

Year beginning Oct. 1--	Soybeans: U.S. farm price 1/	Soybeans: U.S. cash price 2/	Soybeans: Rotterdam price 3/	Peanuts: U.S. 4/ price	Peanuts: Rotterdam price 5/	Sunseed: U.S. 6/ price	Sunseed: Rotterdam price 7/	Rapeseed 8/	Copra 9/	Linseed 10/
1979	$234	$240	$278	$451	$939	$197	$291	$303	$502	$337
1980	271	274	310	542	1,843	242	332	308	389	364
1981	219	224	252	573	900	236	298	293	333	321
1982	224	229	258	567	885	209	269	306	414	266
1983	274	274	301	528	980	310	360	351	707	302

1/ Price received by farmers.
2/ U.S. No. 1 Yellow, Chicago.
3/ U.S. No. 2, Yellow, c.i.f. Rotterdam.
4/ U.S. farmers price; in shell basis.
5/ U.S. edible peanuts shelled basis, c.i.f.
6/ Farmers prices.
7/ USA/Canada c.i.f. Rotterdam.
8/ Canadian, 40 percent, c.i.f. Rotterdam.
9/ Philippine/Indonesia, bulk, c.i.f. Rotterdam.
10/ Can., No 1, c.i.f. Rotterdam.

Source: U.S. Department of Agriculture, Oil World, Public Ledger, Wall Street Journal.

Table 66.--Protein meals: Prices of selected protein meals, crop years 1979/80 to 1983/84

(Per metric ton)

Year beginning October 1--	Soybeans: U.S. 1/ price	Soybeans: Rotterdam price 2/	Cottonseed: U.S. 3/ price	Cottonseed: Rotterdam price 4/	Sunflowerseed: U.S. 5/ price	Sunflowerseed: Rotterdam price 6/	Peanut: U.S. 7/ price	Peanut: Rotterdam price 8/	Fish 9/	Rapeseed 10/	Copra 11/	Corn Gluten 12/
1979	$201	$242	$164	$202	$ 96	$186	$186	$224	$473	$199	$215	$199
1980	239	272	197	226	111	212	236	260	502	205	200	186
1981	202	225	168	187	115	177	197	195	364	186	186	172
1982	207	224	191	172	107	156	214	176	420	169	181	166
1983	208	221	206	181	121	154	231	197	416	164	172	151

1/ Average wholesale, 44 percent protein, Decatur.
2/ U.S. c.i.f. Rotterdam.
3/ Cottonseed meal, 41 percent protein solvent, Memphis.
4/ Cottonseed meal, 38 percent protein, c.i.f. Europe.
5/ Sunflowerseed meal, 28 percent protein, Minneapolis.
6/ Argentine/Uruguayan, c.i.f. Rotterdam.
7/ Peanut meal, South East Mills, 50 percent protein.
8/ Indian, 48 percent protein, c.i.f. Rotterdam.
9/ Fish meal, c.i.f. Hamburg.
10/ Rapeseed meal, 34 percent protein, f.o.b. ex-mill, Hamburg.
11/ Copra meal, Philippines, c.i.f. Hamburg.
12/ Corn Gluten, 23/24 percent protein, c.i.f. Hamburg.

Source: U.S. Department of Agriculture, Oil World, Public Ledger, Wall Street Journal.

Table 67.--Vegetable oils: Prices of selected vegetable oils, crop years 1979/80 to 1983/84

(Per metric ton)

Year beginning October 1--	Soybeans		Cottonseed		Sunflowerseed		Peanut		Palm 9/	Rapeseed 10/	Coconut 11/	Linseed 12/
	U.S. 1/ price	Rotterdam price 2/	U.S. 3/ price	Rotterdam price 4/	U.S. 5/ price	Rotterdam price 6/	U.S. 7/ price	Rotterdam price 8/				
1979------	$536	$613	$559	$683	$573	$634	$609	$782	$597	$582	$746	$679
1980------	502	540	569	666	594	666	892	1,112	589	510	583	692
1981------	418	463	443	582	550	558	609	667	479	438	500	562
1982------	455	463	481	611	496	501	647	588	424	491	680	506
1983------	673	722	717	855	938	765	1,092	1,036	746	696	1,123	556

1/ Average wholesale, crude, tank, Decatur.
2/ Dutch, f.o.b. ex-mill Rotterdam.
3/ Crude, tank cars, f.o.b. Valley Points.
4/ US, PBSY, c.i.f. Rotterdam.
5/ f.o.b. Minneapolis.
6/ Any origin, Ex-tank Rotterdam.
7/ Crude, tank cars, f.o.b. SE mills.
8/ Any origin, c.i.f. Rotterdam.
9/ Sumatra/Malaysia, c.i.f. NW Europe.
10/ f.o.b. ex-mill, Rotterdam.
11/ Philippines/Indonesia, c.i.f. Rotterdam.
12/ Any origin, Ex-tank, Rotterdam.

Source: U.S. Department of Agriculture, Oil World, Public Ledger, Wall Street Journal.

Annual oilseed production fluctuated largely because of changes in the area planted in the various oilseeds and in the crop yield per acre, which was affected by rainfall and growing conditions. Peak world production of oilseeds in crop year 1982/83 came about as record acreage and yields occurred, particularly in the United States and Brazil, the major producers (table 68). Among the various types of oilseeds, rapeseed production during crop year 1979/80 to 1983/84 experienced the largest absolute increase, 4 million tons or 40 percent; soybean production, meanwhile, dropped by 13 percent, or by 11.8 million tons.

Oilseed meal production in the world rose by about 3 percent during the 5-year period, with most of the increase coming from expanded rapeseed meal, sunflowerseed meal, and fish meal output (table 60). Peak production of oilseed meals occurred in crop year 1982/83 as did the peak production of vegetable oils.

World vegetable oils production increased by 12 percent during crop year 1979/80 to 1983/84, surpassing the production growth rate of oilseeds and oilseed meals, owing chiefly to expanded rapeseed oil and palm oil production, which rebounded by 52 and 30 percent, respectively, during the period (table 61).

World trade in oilseeds, oilseed meal, and vegetable oils varied considerably during crop year 1979/80 to 1983/84. Exports solely of oilseeds averaged 34 million tons annually during this period, falling by about 9 percent during the 5 years, while exports of oilseed meals averaged 28 million tons, rising irregularly by 12 percent. World exports of vegetable oils also expanded irregularly, rising by 7 percent during the 5 years, and averaged about 13 million tons annually. There has been a tendency during this period toward less trade in oilseeds and more in oilseed meals and vegetable oils as producer/exporting countries chose to process their oilseeds domestically and then export the two coproducts.

During crop years 1979/80 to 1983/84, smaller exports of soybeans accounted for most of the declining world oilseed exports. Exports of oilseed meals rose, paced by increased exports of soybean meal, sunflowerseed meal, and rapeseed meal, and world exports of vegetable oils rose mainly because of increased exports of palm, sunflowerseed, and rapeseed oils.

Growth in world imports (and exports) of oilseeds and products slowed appreciably during the 5 most recent years compared with the growth experienced during the preceding 5-year period. During crop years 1979/80 to 1983/84, world imports of oilseeds fell by about 8 percent, and those of oilseed meals and of vegetable oils each increased by 14 percent. Contrasted with this trend, during the preceding 5-year period (crop years 1974/75 to 1978/79), world imports of vegetable oils and of oilseeds and meals each rose by about 50 percent. 1/ The decline in world imports of oilseeds during crop years 1979/80 to 1983/84 reflected, in part, the previously cited trend of producing/exporting countries to export processed coproducts, meal and oil

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1/ Source for vegetable oils, U S Department of Agriculture, Foreign Agricultural Circular on Oilseeds and Products, November 1984, pp. 30-40; and for oilseeds and oilseed meals, Oil World, Dec. 8, 1978, p. 1119.

Table 68.--Selected oilseeds: World harvested area, yield, and production, by major oilseed, and countries, crop years 1979/80 to 1983/84 and average, crop years 1979-80 to 1983/84 1/

Commodity/region	1979/80			1980/81			1981/82		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	(1,000 hectares)	(Kilos per hectare)	(1,000 metric tons)	(1,000 hectares)	(Kilos per hectare)	(1,000 metric tons)	(1,000 hectares)	(Kilos per hectare)	(1,000 metric tons)
Soybeans:									
United States	28,557	2,161	61,722	27,461	1,776	48,772	26,858	2,027	54,435
Brazil	8,762	1,717	15,040	8,850	1,751	15,500	8,400	1,524	12,800
China	7,200	1,042	7,500	7,320	1,077	7,880	8,000	1,156	9,245
Argentina	1,780	1,966	3,500	1,740	2,069	3,600	1,999	2,001	4,000
Paraguay	435	1,379	600	520	1,538	800	400	1,563	625
All other	4,299	1,165	5,009	4,265	1,117	4,763	4,487	1,132	5,079
Total	51,033	1,830	93,371	50,156	1,621	81,315	50,144	1,719	86,184
Cottonseed:									
Soviet Union	3,090	1,460	4,510	3,147	1,684	5,300	3,168	1,563	4,950
China	4,500	981	4,414	4,900	1,105	5,414	5,100	1,164	5,936
United States	5,193	1,009	5,242	5,348	758	4,056	5,601	1,036	5,803
India	8,078	327	2,643	8,130	332	2,700	8,150	337	2,750
Pakistan	2,025	709	1,436	2,085	656	1,368	2,167	678	1,470
All other	9,204	755	6,952	8,973	780	6,997	9,102	760	6,920
Total	32,090	785	25,197	32,583	793	25,835	33,288	836	27,829
Peanuts (in shell):									
India	7,238	797	5,772	7,250	800	5,800	7,250	855	6,200
China	2,100	1,344	2,822	2,400	1,500	3,600	2,500	1,530	3,826
United States	615	2,927	1,800	566	1,850	1,047	604	2,992	1,807
Senegal	1,097	547	600	1,000	450	450	1,000	790	790
Sudan	980	867	850	980	816	800	1,000	830	830
Brazil	320	1,703	545	235	1,400	329	250	1,440	360
Republic of Korea	280	1,179	330	243	1,469	357	203	650	132
All other	5,555	893	4,963	4,925	893	4,396	4,999	916	4,580
Total	18,185	972	17,682	17,599	953	16,779	17,806	1,040	18,525
Sunflowerseed:									
Soviet Union	4,334	1,249	5,414	4,353	1,068	4,650	4,235	1,098	4,650
Argentina	1,784	844	1,505	1,250	1,040	1,300	1,564	1,157	1,810
United States	2,305	1,511	3,484	1,568	1,139	1,786	1,590	1,319	2,098
Romania	519	1,713	889	508	1,280	650	506	1,593	806
Bulgaria	230	1,804	415	248	1,524	378	260	1,723	448
All other	3,147	1,123	3,535	4,160	1,050	4,370	4,069	1,101	4,478
Total	12,319	1,237	15,242	12,103	1,076	13,021	12,224	1,169	14,290
Rapeseed:									
India	3,475	412	1,433	3,600	597	2,150	4,050	617	2,500
China	2,750	873	2,402	3,000	795	2,384	3,850	1,056	4,065
Canada	3,406	1,001	3,411	2,080	1,194	2,483	1,402	1,310	1,837
Poland	180	1,294	233	320	1,769	566	277	1,791	496
France	223	2,287	510	395	2,762	1,091	470	2,177	1,023
All other	1,644	1,333	2,191	1,726	1,542	2,661	1,811	1,448	2,622
Total	11,659	873	10,180	11,125	1,016	11,299	11,860	1,058	12,543
Flaxseed:									
India	1,641	165	270	2,100	250	525	1,800	264	475
Argentina	978	760	743	720	813	585	740	811	600
Soviet Union	1,046	239	250	1,125	222	250	1,057	156	165
Canada	931	875	815	575	809	465	465	1,006	468
United States	355	859	305	285	723	206	250	792	198
All other	624	455	284	306	784	240	238	672	160
Total	5,575	478	2,667	5,111	444	2,271	4,550	454	2,066

Table 68.--Selected oilseeds: World harvested area, yield, and production, by major oilseed, and country, crop year 1982/83, to 1983/84 and average, crop years 1979/80 to 1983/84 1/--Continued

Commodity/region	1982/83			1983/84			Average 1979/80 to 1983/84		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	(1,000 hectares)	(Kilos per hectare)	(1,000 metric tons)	(1,000 hectares)	(Kilos per hectare)	(1,000 metric tons)	(1,000 hectares)	(Kilos per hectare)	(1,000 metric tons)
Soybeans:									
United States	28,256	2,147	60,677	25,303	1,759	44,518	27,218	1,974	53,742
Brazil	8,227	1,793	14,750	9,439	1,632	15,400	8,610	1,704	14,668
China, Mainland	8,414	1,073	9,030	7,567	1,290	9,765	7,696	1,131	8,704
Argentina	2,115	1,688	3,570	2,675	2,318	6,200	2,142	2,002	4,290
Paraguay	350	1,429	500	420	1,310	550	398	1,430	569
Other	4,919	1,104	5,432	5,006	1,102	5,517	4,658	1,109	5,167
Total	52,281	1,797	93,959	50,410	1,626	81,950	50,722	1,718	87,140
Cottonseed:									
Soviet Union	3,188	1,568	5,000	3,192	1,441	4,600	3,157	1,550	4,893
China, Mainland	5,828	1,235	7,196	6,077	1,525	9,275	5,304	1,215	6,447
United States	3,937	1,093	4,304	2,982	936	2,790	4,611	963	4,439
India	7,950	338	2,685	7,765	322	2,500	7,905	336	2,655
Pakistan	2,262	729	1,648	2,274	419	952	2,188	636	1,392
Other	9,070	716	6,491	9,103	742	6,751	8,975	760	6,819
Total	32,235	847	27,324	31,393	856	26,868	32,140	829	26,645
Peanuts (in shell):									
India	7,345	756	5,553	7,641	953	7,284	7,240	843	6,112
China, Mainland	2,416	1,621	3,916	2,201	1,795	2,951	2,300	1,575	3,623
United States	516	3,023	1,560	556	2,689	1,495	571	2,698	1,541
Senegal	1,082	883	955	950	579	550	1,056	710	750
Sudan	1,010	990	1,000	770	597	460	874	768	671
Brazil	200	1,050	210	150	1,467	220	230	1,417	326
South Africa	191	440	84	238	261	62	264	700	185
Other	4,853	899	4,361	5,241	890	4,664	5,285	883	4,663
Total	17,613	1,001	17,639	17,474	1,053	18,686	17,830	1,002	17,873
Sunflowerseed:									
Soviet Union	4,250	1,257	5,341	4,270	1,180	5,040	4,288	1,170	5,018
Argentina	1,901	1,157	2,200	1,989	1,106	2,200	1,740	1,079	1,878
United States	1,912	1,265	2,419	1,240	1,170	1,451	1,675	1,303	2,182
Romania	2/	2/	2/	2/	2/	2/	2/	2/	2/
Bulgaria	2/	2/	2/	2/	2/	2/	2/	2/	2/
Other	5,042	1,266	6,384	5,666	1,175	6,784	4,965	1,197	5,945
Total	13,105	1,247	16,344	13,165	1,175	15,471	12,668	1,186	15,023
Rapeseed:									
India	4,194	589	2,472	3,893	659	2,566	3,941	537	2,117
China, Mainland	4,122	1,372	5,656	3,669	1,168	4,287	3,439	1,093	3,759
Canada	1,777	1,264	2,246	2,327	1,131	2,632	3,200	1,146	2,520
Poland	586	1,841	1,079	2/	2/	2/	2/	2/	2/
France	1,011	2,613	2,642	2/	2/	2/	2/	2/	2/
Other	1,082	918	993	2,797	1,713	4,782	3,467	1,674	4,126
Total	12,772	1,181	15,088	12,686	1,125	14,267	12,047	1,039	12,522
Flaxseed:									
India	1,758	271	476	1,466	300	440	1,595	249	398
Argentina	939	777	730	770	883	680	816	833	680
Soviet Union	1,126	133	150	1,064	220	234	1,145	174	200
Canada	627	1,171	734	431	1,037	447	602	972	585
United States	330	897	296	235	745	175	278	808	224
Other	276	630	174	283	834	236	351	694	244
Total	5,056	506	2,560	4,249	521	2,212	4,618	494	4,279
Grand total	133,062		172,914	129,650		159,454	130,424		187,783

1/ Split year includes Northern Hemisphere crop harvested in the late months of the first year shown combined with Southern Hemisphere and certain Northern Hemisphere crops harvested in the early months of the following year.
2/ Not available; included under "All other."

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

Note.--Owing to unpublished revisions in some annual data the average 1979/80-1983/84 data may vary slightly.

(rather than the oilseed), and the effects of rising world production of fats and oils within importing countries. Moreover, rising prices for all oilseed products, debt problems of some importing countries, and slower rising per capita incomes doubtless also curtailed overall demand growth for oilseeds and products.

In the case of soybeans and its coproducts, world imports of soybeans declined during the 5-year period, but imports of soybean meal and soybean oil rose. The EC, the largest market, chose to import more soybean meal and fewer soybeans for processing, reflecting the availability and competitive pricing of the meal from Brazil and Argentina, and, perhaps, less demand within the EC for soybean oil. Another major market, Eastern Europe, also imported fewer soybeans during crop years 1979/80 to 1983/84 as its financial and debt problems curtailed feedstuff imports.

Imports of vegetable oils into principal world markets grew at an annual rate of 2.9 percent during crop years 1979/80 to 1983/84. Most of the growth was registered in India, the Soviet Union, Pakistan, the Netherlands, West Germany, Nigeria, Egypt, and the United States (table 69). A number of countries imported less vegetable oil as their domestic production rose, their foreign exchange situation tightened, or in some cases trade restrictions were imposed. 1/

United States

Overall pattern.--U.S. production of oilseeds, particularly the key oilseed soybeans, has risen sharply since the early 1970's. However, during 1979/80 to 1983/84, unfavorable weather in 1980/81 reduced soybean output that year, and the effects of both unfavorable weather and the USDA Payment-In-Kind (PIK) program led to further cuts in output in 1983/84 (table 70). 2/ The PIK program indirectly reduced soybean acreage in 1983 by curtailing the acreage planted in wheat and cotton, two crops often planted in conjunction with soybeans (doubled cropped). As less wheat and cotton were planted because of the PIK, fewer soybeans were also planted since the fallow land idled in the PIK could not be planted in soybeans. U.S. soybean production amounted to a record 62 million metric tons in 1979/80, but then declined by 27 percent in 1983/84 to a low of 45 million tons. U.S. soybean output as a share of world production declined during 1979/80 to 1983/84 from 66 to 54 percent. Meanwhile, U.S. output of soybean meal and oil declined by 16 and 10 percent, respectively, during the 5 years, and as a result, the U.S. share of world production fell from 43 to 36 percent for soybean meal and from 43 to 38 percent for soybean oil.

1/ U S Department of Agriculture, Foreign Agricultural Circular on Oilseeds and Products, November 1984, pp. 30-31.

2/ For discussion of PIK, see the section "U.S. Government Programs" in this oilseeds sector report.

Table 69.--Vegetable oils: Imports, by major markets, crops years 1979/80 to 1983/84

(In thousands of metric tons)

Countries	1979/80	1980/81	1981/82	1982/83	1983/84
United States	642	705	654	756	750
India	1,350	1,308	953	1,227	1,520
China	232	152	87	54	46
U.S.S.R	435	731	1,024	840	701
Japan	239	276	323	295	292
Brazil	18	11	33	55	111
West Germany	791	855	893	956	999
Italy	392	283	468	454	330
United Kingdom	653	592	746	744	739
Nigeria	179	252	369	284	232
Pakistan	463	471	528	665	660
France	679	654	715	727	658
Spain	97	86	85	65	66
Mexico	48	34	87	121	85
Turkey	139	159	172	184	192
Netherlands	677	694	763	828	801
Egypt	297	339	311	305	361
Canada	93	66	65	68	66
Poland	143	104	122	120	137
Iran	328	298	347	340	276
Belgium-Luxembourg	238	206	263	269	259
Colombia	125	132	168	109	97
Morocco	193	144	181	189	203
Algeria	161	209	166	185	207
Yugoslavia	27	174	80	156	70
Philippines	13	7	11	32	21
Republic of South Africa	38	48	39	111	110
Republic of Korea	41	68	102	126	113
Portugal	17	21	24	20	20
Taiwan	7	13	24	40	35
Burma	29	28	32	16	20
East Germany	112	109	107	90	101
Venezuela	183	251	165	152	176
Australia	78	67	75	69	73
Iraq	114	109	186	141	161
Czechoslovakia	24	21	32	20	22
Bangladesh	85	140	144	164	115
Ecuador	33	44	43	58	52
Subtotal	9,413	9,869	10,587	11,035	10,877
All other	2,313	3,274	2,392	2,503	2,273
Total	11,826	12,135	12,979	13,538	13,264

Source: Compiled from official statistics of the U.S. Department of Agriculture Foreign Agriculture Service, as of November 1984.

Table 70.—Oilseeds: U.S. area planted, yield, production, imports, exports, crush, domestic consumption, and ending stocks, crop years 1979/80 to 1983/84

Commodity and crop year	Area	Yield per hectare	Production	Imports	Exports	Crush	Domestic consumption	Ending stocks
	1,000 hectares	Metric ton	1,000 metric tons					
Major oilseeds:								
1979/80	36,819	1.960	72,181	59	26,206	35,634	39,725	12,024
1980/81	35,115	1.592	55,915	274	21,658	32,756	37,327	9,318
1981/82	34,755	1.840	63,964	122	27,142	33,101	38,093	8,169
1982/83	34,767	1.960	68,154	90	26,318	34,745	39,603	10,487
1983/84	30,307	1.664	50,429	153	21,579	30,184	34,269	5,221
Major protein meals:								
1979/80	–	–	27,297	73	7,432	–	19,974	261
1980/81	–	–	24,543	103	6,287	–	18,368	252
1981/82	–	–	25,043	108	6,379	–	18,717	307
1982/83	–	–	26,562	138	6,520	–	19,966	521
1983/84	–	–	22,387	170	5,027	–	17,718	333
Major vegetable and marine oils:								
1979/80	–	–	6,584	642	1,791	–	5,141	862
1980/81	–	–	6,100	705	1,504	–	5,177	986
1981/82	–	–	6,058	654	1,549	–	5,419	730
1982/83	–	–	6,493	757	1,587	–	5,560	833
1983/84	–	–	5,644	710	1,272	–	5,452	463

Source: Compiled from official statistics of the U.S. Department of Agriculture, Foreign Agricultural Service, as of January 1985.

Note:—Major oilseeds include cottonseed, flaxseed, peanuts, rapeseed, soybeans, and sunflowerseed.
—Major protein meals include copra, cottonseed, fish, linseed, peanut, rapeseed, soybean, and sunflowerseed.
—Major vegetable and fish oils include coconut, cottonseed, fish, linseed, olive, palm, palm kernel, peanut, rapeseed, soybean, and sunflowerseed.

Soybean prices have been strongly influenced by available supplies during a particular crop year: the price of U.S. soybeans in the major European market of Rotterdam, for example, rose from crop years 1979/80 to 1980/81 (a year with weather-reduced supplies), declined in crop years 1981/82 and 1982/83 (years of abundant crops), and then increased to near-record levels in crop year 1983/84 as the U.S. soybean crop fell markedly in that year. U.S. oilseed meal and vegetable oil prices followed the same general pattern, also reaching record or near-record levels in crop year 1983/84.

Foreign markets have been important outlets for U.S. production of oilseeds, oilseed meals, and fats and oils. During crop years 1979/80 to 1983/84, about 40 percent of U.S.-produced oilseeds (soybeans, cottonseed, sunflowerseed, flaxseed, and peanuts) were exported, as were about 25 percent of the major protein meals and 25 percent of the vegetable and marine oils. For the 5 years, about 42 percent of the U.S. output of soybeans, 27 percent of soybean meal, and 18 percent of soybean oil were sold in foreign markets.

U.S. exports of oilseeds and byproducts peaked on a volume basis in 1980 and on a value basis in 1981 and then declined in both volume and value steadily thereafter to 1984. In 1981, the record year, 10.2 billion dollars' worth of oilseeds, oilseed meals, and vegetable oils and fats were exported, with oilseeds constituting 67 percent of the total value, fats and oils, about 17 percent, and oilseed meals, the remaining 16 percent.

U.S. imports of oilseeds and oilseed meals supplied less than 1 percent of domestic consumption during crop years 1979/80 to 1983/84, and imported fats and oils supplied about 11 percent of consumption. The principal oilseed imported during the 5 years, peanuts, entered primarily during a single crop year, 1980/81, when the domestic supply was curtailed by drought conditions. For fats and oils, the primary imported products were coconut oil and palm oil. During 1979-83, the value of U.S. imports of all oilseeds and oilseed products averaged about $0.6 billion annually, fluctuating between $0.4 billion and $0.8 billion.

Major shifts during 1979-83, the value of U.S. exports of oilseeds and products set a record $10.2 billion in 1981 but thereafter declined to $9.3 billion in 1983, as shown in table 71. The volume of oilseed and product exports reached a record 37 million tons in 1982 and then declined to 33 million tons in 1983, about the same as the average for 1979-81. From 1979 to 1983, the value of U.S. oilseed and product exports was 4 percent less than in 1979, but the volume of such exports was 5 percent higher. This change in trade differed from that during 1974-78, when the volume of exports rose an annual rate of 11 percent. As noted previously, oilseeds, mainly soybeans and sunflowerseed, constituted about two-thirds of the value of U.S. exports of this commodity grouping during 1979-83; oilseed meals (mainly soybean meal) and fats and oils (mainly soybean oil and tallow) each contributed about one-sixth.

Table 71.--Oil seed products: U.S. exports, 1979-83 and January-September 1984

Commodity	1979	1980	1981	1982	1983	Jan.-Sept. 1984
	Quantity (1,000 metric tons)					
Oilseeds	22,701	23,858	23,781	27,270	23,796	14,900
Oilseed meals	6,279	7,286	6,690	6,386	6,739	3,593
Fats oils	2,882	3,292	3,112	3,008	2,834	2,395
Total	31,862	34,436	33,583	36,664	33,369	20,888
	Value (million dollars)					
Oilseeds	6,393	6,581	6,886	6,855	6,351	4,440
Oilseed meals	1,454	1,708	1,648	1,438	1,567	844
Fats oils	1,805	1,864	1,707	1,494	1,396	1,520
Total	9,652	10,153	10,241	9,787	9,314	6,804

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

A key factor behind the stagnation in U.S. oilseed and product exports has been the effect of the strong U.S. dollar, according to a recent USDA study. Longmire and Morey estimated that a 20-percent rise in the value of the dollar in foreign markets during 1981-83 cut U.S. exports of soybeans by 16 percent. 1/ During 1979-83, for example, the nominal trade-weighted exchange-rate index (April 1971=100) of the U.S. dollar for soybeans rose from 78 in 1979 to 145 in 1983, or by 86 percent. 2/ After adjusting this exchange rate for inflation, the exchange-rate index for soybeans on a "real" (inflation deflated) basis rose from 62 to 88 or by 42 percent. Thus, foreign customers of U.S. soybeans would have paid 42 percent more in real terms in their own currencies for a bushel of soybeans in 1983 than in 1979. Mitigating this rise somewhat, the U.S. price of soybeans fell by 5 percent during the 5 years, but even after deducting this price decline, the net effect for U.S. soybeans was a real price rise in foreign currencies of 37 percent.

Another USDA study done by Dunmore and Longmire used an econometric approach to analyze sources of changes in U.S. soybean, wheat, and coarse grain exports during crop years 1980/81 to 1982/83. 3/ Among their findings

1/ U.S. Department of Agriculture, James Longmire and Arthur Morey, Strong Dollar Dampens Demand for U.S. Farm Exports, December 1983, p. iii.

2/ Data are derived from U.S. Department of Agriculture, Agriculture Outlook, various issues, from the table entitled "Indexes of nominal and real trade-weighted dollar exchange rates."

3/ U.S. Department of Agriculture, John Dunmore and James Longmire, Sources of Recent Changes in U.S. Agricultural Exports, January 1984.

were that excessive indebtedness of key foreign country markets and the strengthening of the U.S. dollar were far more important than the worldwide recession in curtailing U.S. exports. The influence of the strong dollar was, by far, the most important single negative factor dampening soybean export volume, although a decline in world oilseed production and changes in internal EC policies (which favored the use of EC-produced soybean meal) tended to bolster U.S. soybean exports, according to this study.

Foreign markets for U.S. oilseeds and oilseed products tend to be in developed countries, although developing countries became more important during 1979-83 than in previous years. The EC remained the leading U.S. market for oilseeds and oilseed products during 1979-83, purchasing 40 percent of the value of U.S. exports, and Japan retained its second leading market position with a 13-percent share, as shown in table 72. During this period, the EC reduced its imports of soybeans from all countries by about 1 million tons annually, unlike in the previous 5 years (crop years 1974/75 to 1978/79) when the EC had increased its annual imports of soybeans by about the same

Table 72.--Oilseeds and products: U.S. exports, by major markets, 1979-83 and January-September 1984

Country/region	1979	1980	1981	1982	1983	Jan.-Sept. 1984
	Quantity (1,000 metric tons)					
EC-10	12,902	15,366	15,246	16,582	13,448	6,393
Japan	4,117	4,501	4,286	4,342	4,749	3,256
Spain	2,050	1,799	2,150	3,082	2,072	1,251
Mexico	663	1,797	1,228	1,219	1,721	1,701
Taiwan	1,122	992	1,081	1,185	1,419	1,007
Republic of Korea	608	682	552	727	914	630
All other	10,400	9,300	9,040	9,527	9,046	6,650
Total	31,862	34,437	33,583	36,664	33,369	20,888
	Value (million dollars)					
EC-10	3,535	4,124	4,296	4,161	3,443	1,810
Japan	1,195	1,279	1,270	1,093	1,305	998
Spain	555	495	598	734	563	359
Mexico	224	552	419	412	500	608
Taiwan	319	284	326	309	380	319
Repubic of Korea	194	210	174	189	258	200
All other	3,630	3,209	3,158	2,890	2,535	2,510
Total	9,652	10,153	10,241	9,788	9,314	6,804

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

tonnage. 1/ The EC did increase its imports of soybean meal by about 0.3 million tons annually during crop years 1979/80 to 1983/84 (compared with an increase of about 0.8 million tons annually in the previous 5 years). Japan, meanwhile, increased its purchases of U.S. oilseed products (mostly soybeans) by 15 percent on a volume basis and by 9 percent in value during 1979-83.

Growth in major foreign markets for U.S. soybeans has occurred mainly in six developing countries: Mexico, Taiwan, the Republic of Korea, Indonesia, Malaysia, and Venezuela. These six countries experienced the highest absolute increase in their imports of soybeans during the crop years 1979/80 to 1983/84 and were second only to the EC in their growth of soybean meal imports. For vegetable oils, the most rapidly increasing import markets were the Soviet Union, India, Pakistan, Nigeria, and Turkey. Tables 73, 74, and 75 shows exports of the United States and its' major competitors in the top ten U.S. markets, during 1979-83.

The United States imported oilseeds and byproducts during 1979-83 chiefly in the form of coconut and palm oils, except in 1981, when it imported peanuts valued at about $360 million owing to a domestic supply shortfall brought about by a drought. 2/ With the exception of 1981, palm oil, coming mainly from Malaysia, and coconut oil, supplied mostly by the Philippines, represented over 60 percent of the value of U.S. imports of oilseeds and byproducts during 1979-83. All vegetable oils accounted for over three-quarters of the value of oilseeds and products imported into the United States during this period, as shown in table 76. During the 5 years, imports of oilseeds and oilseed products peaked in 1981, largely a result of the record peanut tonnage, most of which came from China.

1/ For a more detailed market share analysis, see U.S. Department of Agriculture, Richard McConnel, "World Oilseeds Outlook," Foreign Agriculture Circular on Oilseeds and Products, December 1984.

2/ See United States International Trade commission, Peanuts: Report to the President on Inv. No. 22-42 under Section 22 of the Agricultural Adjustment Act as Amended, USITC Publication 1124, January 1981.

Table 73.--Oilseeds: Exports, by selected suppliers, by major U.S. markets, 1979-83

(In millions of dollars)

Year and supplier	EC-10	Japan	Spain	Taiwan	Mexico	Portugal	Republic of Korea	U.S.S.R.	Switzer-land	Canada	Subtotal	All other	World
1979:													
United States	2,720	1,065	480	309	125	104	119	494	44	131	5,591	789	6,380
Argentina	562	8	85	0	4	7	0	0	0	0	667	90	752
Brazil	110	1	42	0	0	2		13	1/	0	168	28	196
Canada	267	346	3	1/	1/	0	10	14	3	-	643	95	738
1980:													
United States	3,002	1,136	465	262	386	88	156	46	20	150	5,711	839	6,550
Argentina	316	7	80	0	0	13	0	157	2	2	577	85	662
Brazil	149	11	187	0	12	14	0	33	1	1/	407	9	416
Canada	151	306	1	0	8	2	4	8	4	-	484	69	553
1981:													
United States	3,167	1,154	561	315	326	155	126	8	37	115	5,964	899	6,863
Argentina	201	8	32	0	73	3	0	189	1/	6	512	127	639
Brazil	63	2	142	0	59	11	0	141	1/	1/	418	18	436
Canada	157	374	3	1/	18	4	7	0	6	-	569	107	676
1982:													
United States	3,009	999	705	287	286	174	142	171	96	122	5,990	836	6,826
Argentina	139	1	1/	0	28	4	0	150	0	0	322	132	454
Brazil	9	2	12	0	42	1	0	64	0	0	130	8	138
Canada	88	352	4	1	1/	0	8	0	4	-	457	69	526
1983:													
United States	2,330	1,236	529	364	358	222	202	157	151	113	5,662	676	6,338
Argentina	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Brazil	101	13	131	0	28	1/	0	30	1/	0	303	14	317
Canada	122	355	1	1	1/	1/	1	0	4	-	484	76	560

1/ Less than $0.5 million.
2/ Not available.

Source: Compiled from official statistics of the United Nations (U.N.).

Note.--Data shown in this table may differ slightly from the U.S. export data shown elsewhere in this report since the U.N. data include some additional export categories.

Table 74.--Oilseed meals: Exports, by selected suppliers, by major U.S. markets, 1979-83

(In millions of dollars)

Year and supplier	EC-10	Venezula	Canada	Hungary	Mexico	Poland	Republic of Korea	Spain	East Germany	Switzer-land	Subtotal	All other	World
1979:													
United States----------	637	72	10	13	45	100	18	51	73	5	1,114	372	1,486
Argentina--------------	246	0	0	0	0	6	0	2	8	0	262	23	285
Brazil-----------------	789	3	0	30	0	130	11	35	0	1/	1,029	144	1,173
EC-10------------------	-	0	0	0	0	0	0	1/	0	3	3	169	172
1980:													
United States----------	917	87	84	18	70	79	0	1	76	8	1,340	395	1,735
Argentina--------------	227	0	0	0	0	4	0	4	15	0	250	47	297
Brazil-----------------	1,001	0	0	48	0	175	3	10	4	0	1,241	260	1,501
EC-10------------------	-	0	0	0	0	0	0	1/	0	2	2	269	271
1981:													
United States----------	833	108	86	0	40	81	10	11	58	9	1,227	440	1,667
Argentina--------------	228	0	0	0	0	2	0	6	18	0	254	38	292
Brazil-----------------	1,315	4	0	90	0	217	2	11	42	0	1,681	498	2,179
EC-10------------------	-	0	0	0	0	1/	0	1/	0	2	2	372	374
1982:													
United States----------	926	115	8	0	10	1	15	15	28	1/	1,191	259	1,450
Argentina--------------	275	0	0	0	0	0	0	3	12	0	290	58	348
Brazil-----------------	961	3	0	84	0	61	11	10	85	1	1,216	462	1,678
EC-10------------------	-	0	0	0	0	14	0	1/	0	2	16	322	337
1983:													
United States----------	961	123	99	51	42	38	20	19	17	12	1,382	189	1,571
Argentina--------------	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Brazil-----------------	1,855	0	0	97	0	0	35	74	67	0	2,128	722	2,850
EC-10------------------	-	0	0	0	0	15	0	1/	0	1	16	521	537

1/ Less than $0.5 million.
2/ Not available.

Source: Compiled from official statistics of the United Nations (U.N.).

Note.--Data shown in this table may differ slightly from the U.S. export data shown elsewhere in this report since the U.N. data include some additional export categories.

Table 75.--Vegetable oils: Exports, by selected suppliers, by major U.S. markets, 1979-83

(In millions of dollars)

Year and supplier	Pakistan	Venezula	Egypt	EC-10	Yugo-slavia	Mexico	Peru	India	Japan	Saudi Arabia	Subtotal	Rest of world	World
1979:													
United States	108	60	85	51	0	1	18	166	28	13	530	543	1,073
Argentina	97	95	35	159	0	0	0	0	2	0	388	84	472
Brazil	58	8	19	141	0	0	0	149	1	0	376	283	659
Malaysia	41	0	0	332	0	0	0	179	90	22	664	694	1,338
Philippines	0	0	0	204	0	0	0	0	45	0	249	631	743
Spain	6	0	0	100	1	0	0	1/	3	2	112	285	397
EC-10	1/	1	3	-	2	0	1/	69	1	10	86	402	488
1980:													
United States	92	94	132	66	12	38	21	227	21	17	720	378	1,098
Argentina	5	3	11	151	0	0	3	0	0	0	173	299	472
Brazil	32	7	22	164	0	0	0	141	0	0	366	305	671
Malaysia	65	0	0	225	0	0	0	230	83	25	628	763	1,391
Philippines	0	0	0	213	0	0	0	1/	22	0	235	333	568
Spain	1/	0	0	77	33	0	0	6	2	8	126	339	465
EC-10	1/	1/	4	-	9	1/	1/	23	1	21	37	428	465
1981:													
United States	95	150	63	102	4	3	29	78	49	15	488	465	958
Argentina	1/	1/	4	58	0	0	0	0	1	0	63	277	340
Brazil	28	1	74	115	0	0	0	273	5	0	496	363	859
Malaysia	113	0	0	253	0	0	0	227	81	15	689	721	1,410
Philippines	0	3	0	215	0	0	0	8	20	0	246	288	534
Spain	7	0	0	32	22	0	0	1/	2	6	69	252	321
EC-10	3	1	15	-	7	1/	1/	11	1	7	45	433	478
1982:													
United States	132	76	92	67	8	37	18	24	47	21	522	301	823
Argentina	1	7	7	125	0	0	8	1	0	0	149	260	409
Brazil	14	1/	43	65	0	0	0	141	1	0	264	261	525
Malaysia	109	0	1	226	0	0	0	176	72	12	596	737	1,333
Philippines	0	0	0	144	0	3	0	0	15	0	162	239	401
Spain	3	0	0	29	6	0	0	1	2	4	45	228	273
EC-10	1	1/	8	-	2	0	1/	14	2	11	38	384	422
1983:													
United States	93	85	57	55	55	51	39	38	34	33	540	262	802
Argentina	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Brazil	15	3	25	76	0	0	0	199	21	0	320	262	582
Malaysia	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Philippines	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
Spain	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/	2/
EC-10	2	1	14	-	4	0	1/	18	2	14	41	402	443

1/ Less than $0.5 million.
2/ Not available.

Source: Compiled from official statistics of the United Nations (U.N.).

Note.--Data shown in this table for the United States may differ from the U.S. export data shown elsewhere in this report since the U.N. data include only vegetable oils, but not animal fats and oils such as tallows.

Table 76.--Oilseeds and oilseed products: U.S. imports, 1979-83 and January-September 1984

Commodity	1979	1980	1981	1982	1983	Jan.-Sept. 1984
	Quantity (1,000 metric tons)					
Oilseeds	98	90	344	128	178	127
Oilseed meals	25	16	51	66	102	89
Fats and oils	766	705	755	693	805	604
Total	889	811	1,150	887	1,085	820
	Value (million dollars)					
Oilseeds	50	51	376	61	81	59
Oilseed meals	4	3	9	11	18	5
Fats and oils	661	512	457	375	451	554
Total	715	566	842	447	550	628

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

Canada and the EC were also significant suppliers of oilseeds and oilseed products to the United States. U.S. imports from Canada, largely flaxseed and rapeseed oil, and from the EC, mostly olive oil, increased during the 5 years, as shown in table 77.

Government programs

United States.--Soybeans were first provided direct U.S. price support under the Food and Agricultural Act of 1977 and then under the Agriculture and Food Act of 1981. 1/ Under the price-support program, the USDA provided price-support loans at the rate of $5.02 per bushel during 1979-84. There were no acreage controls for soybeans, but other provisions of the price support program covering feedgrains and wheat prohibit farmers from planting

1/ This section draws from U.S. Department of Agriculture (USDA), Soybeans: Background for 1985 Farm Legislation, September 1984, pp. 16-20.

Table 77.--Oilseeds and oilseed products: U.S. imports, by principal sources, 1979-83 and January-September 1984

Source	1979	1980	1981	1982	1983	Jan.-Sept. 1984
	Quantity (1,000 metric tons)					
Philippines	401	341	435	372	399	279
Malaysia	207	194	179	190	242	188
Canada	78	80	211	134	219	182
EC-10	24	25	28	31	33	32
Brazil	43	42	42	25	35	22
Mexico	22	23	29	25	25	22
All other	114	106	226	110	132	95
Total	889	811	1,150	887	1,085	820
	Value (million dollars)					
Philippines	355	225	230	170	194	241
Malaysia	141	115	92	82	110	151
Canada	20	21	60	32	54	47
EC-10	36	42	41	45	48	45
Brazil	35	42	35	21	28	26
Mexico	22	25	28	24	25	20
All other	106	96	356	73	91	98
Total	715	566	842	447	550	628

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

soybeans on acreage set aside from those crops, such as wheat acreage set aside under the PIK program. The following table shows USDA expenditures for price-support operations during fiscal years 1979-83. 1/

1/ Ibid., p. 28.

Table 78.--Price support operations: U.S. Department of Agriculture expenditures, fiscal years 1979-83

(In millions of dollars)

Fiscal year	Loan Operations		Net price support and related expenditures 1/
	Outlays	Repayments	
1979	289	285	4
1980	549	485	116
1981	672	582	87
1982	1,106	936	169
1983	1,984	1,675	288

1/ Expenditures (excluding those for Public Law 480 commodity costs) for loans and purchases, storage and handling, and other outlays such as transportation, producers' stotage payments, loan collateral settlements, export embargo contract expenses less sales proceeds, loan repayments, and other receipts.

Source: U.S. Department of Agriculture.

Because the support price was below the cash price of soybeans during the period under review, the price-support program had little direct impact on soybean markets. However, the price-support programs for grains and cotton indirectly influenced soybean production, as the acreage planted to cotton or wheat, which could be potentially double-cropped with soybeans, influenced the acreage ultimately planted in a given year in soybeans.

Brazil.--Brazil has maintained an "aggressive marketing stance since the early 1970's with the use of selected policies to enhance exports of soybean meal and oil," according to the U.S. Department of Agriculture in a recent publication. 1/ Among these selected policies are an export drawback system providing attractive financing to import soybeans for domestic processing and reexport, differential sales taxes to favor the export of processed soybean products rather than the unprocessed soybeans, export controls through a registration program, and loan programs providing exporters and processors of soybeans with below-market financing, according to the USDA. U.S. soybean processors, (the National Soybean Processors Association (NSPA)), lodged a complaint in 1983 under section 301 of the Trade Act of 1974 against Brazilian (as well as Argentine and Malaysian) trade policies, alleging that unfair trade practices have injured U.S. exports. 2/

1/ U.S. Department of Agriculture, "Policies in Other Exporting Countries," Soybeans: Background for 1985 Farm Legislation, December 1984, pp. 10-11.

2/ For general background on policies of foreign governments affecting U.S. trade in oilseeds and products, see National Soybean Processors Association Petition Seeking Relief under Section 301 of the Trade Act of 1974, as Amended, of the National Soybean Processors Association, before the United States Trade Representative, Apr. 6, 1983.

A recent USDA study using econometric analysis of world soybean markets concluded, however, that Brazilian Government policies affecting its soybean and soybean derivatives markets may have actually resulted in significantly larger, rather than smaller, U.S. production and exports of soybeans, meals, and oil. 1/ The Brazilian policies may have caused a shift in the destination of Brazil's soybean product exports but did not diminish the overall volume of U.S. soybean oil and meal supplied to total world markets, according to this USDA analysis. The Brazilian policies may have also tended to increase the total amount of meal and oil entering world markets and to diminish the total amount of soybeans entering world markets (which entered instead in the form of meal and oil).

According to the NSPA, the Brazilian Government provides subsidized interest rates to Brazilian processors/exporters which receive loans based on a percentage of the value of the previous year's exports. The Government also provides trading companies with credit to purchase or order certain types of goods that are exported. Both programs have provided credit at a level substantially below market interest rates. However, during the past few years, program interest rates have been adjusted upwards to narrow the gap between the commercial and the Government program interest rates. 2/ For the 1984 crop, soybean products were excluded from export financing under these programs. However, loans were provided for the construction of soybean processing mills in Brazil.

The Brazilian Government's drawback system is designed to encourage domestic crushing and export of soybean products, by providing financing for soybean processors to import soybeans and then to re-exporting of the soybean meal and oil.

Brazilian soybean growers benefit from credit provided by the Government as part of its agricultural support and rural development program. Agricultural credit is provided to farmers to finance operating, investment, and marketing expenditures. The terms and rates of interest for rural credit vary widely, depending on type of credit, amount, and the proportion of the loan financed by the borrower.

Brazil taxes soybean exports at a higher rate than processed oilseed exports. The export tax on soybeans is set at 13 percent whereas soybean meal is taxed at 11 percent and soybean oil is taxed at 8 percent.

1/ U.S. Department of Agriculture, Gary Williams and Robert L. Thompson, The Brazilian Soybean Industry, October 1984, pp. 25-26.

2/ The difference between the commercial interest rate and the 40 percent interest rate is considered an export subsidy, by to the NSPA. In addition, Brazilian law differentiates between exports of soybeans and soybean products. Soybean exporters are not eligible for financing. Exporters of canned refined soybean oil are eligible for financing valued at 15 percent of last year's exports. Exporters of bulk refines soybean oil may receive financing valued at 9 percent of the pevious year's exorts. Exporters of crude gumed soybean oil and soybean meal are eligible for financing equal to 7 percent of last year's exports.

Argentina.--Argentina has changed its agricultural export policies, which until at least the mid-1970's tended to restrict its grain and oilseed exports. Argentine farmers have since the mid-1970's expanded their soybean acreage; Argentine soybean processing mills increased their capacity; and total Argentine soybean and products exports rose sharply. 1/ According to a recent USDA study, Argentine policies towards its grain and oilseed sectors have tended until fairly recently to restrict its exports through internal price ceilings, exchange rates unfavorable to Argentine farmers, and high external taxes and tariffs. 2/ Argentine farmers, moreover, have faced higher production costs for agricultural inputs such as tractors, fertilizers, fuel, and herbicides than do most farmers in the United States and other leading exporting countries, and overall productivity per Argentine farmer has been low. 3/

More recently, the Argentine Government has provided tax incentives to encourage the domestic processing of soybeans rather than the export as oilseeds, and that Government moved rapidly during the U.S. embargo in 1980 to supply the Soviet Union through a long-term agreement as did the Brazilian Government. 4/ The Argentine Government has reduced as well its import duties on fertilizer, thus benefiting its soybean farmers, liberalized its export control quotas, and acted to devalue its currency, in part because of pressure from the International Monetary Fund (IMF) concerning Argentine foreign debt repayment difficulties. 5/

Through its system of export taxes, the Argentina Government has promoted exports of valued-added farm products over raw materials to increase total export earnings, raise profit margins, provide additional employment, bring down inflation, and provide a permanent source of funds for Government programs. The Government imposes higher export taxes on soybeans than it does on processed soybean products, with the export taxes being 25 percent on soybeans; 20 percent on soybean oil; and 15 percent on soybean meal.

Over the last few years, Argentina has exported oilseed meal to 20 different countries, with its most important market being the EC. The 1980 Argentine-USSR Grains Agreement committed the Soviet Union to buy a minimum of 500,000 tons of soybeans annually, although average Soviet purchases of 700,000 metric tons during the first three years (1980-82) significantly exceeded the minimum requirement level.

1/ See Myles Mielke, Argentine Agricultural Policies in the Grain and Oilseed Sectors, September 1984.

2/ Ibid., p. v.

3/ Ibid.

4/ National Soybean Processors Association, op.cit., pp. 131-141; and U.S. International Trade Commission, U.S. Embargoes on Agricultural Exports: Implications for U.S. Agricultural Industry and U.S. Exports (USITC Publication 1461), December 1983, pp. 22-24.

5/ USDA, Soybeans: Background for 1985 Farm Legislation, December 1984, pp. 11-12.

Malaysia.--The Malaysian Government also has differential export taxes and export financing to encourage the production and export of processed palm oil rather than crude, unprocessed palm oil, according to the National Soybean Processors Association's complaint. 1/ Malaysia has, since the mid-1970's, developed its own palm-oil-refining industry to produce and export fully refined palm oil products. This has tended to reduce edible oil prices in world markets, according to the association. The Malaysian Government's differential export tax on crude and processed palm oil is set at a higher rate than on exports of refined palm oil, and thus provides an incentive to process the raw product domestically and export it in processed form. Malaysia also protects its domestic soybean processing industry with a tariff of 13 percent.

While there are no general direct agricultural support programs in Malaysia, the Government does provide credit for low-income farmers planting palm trees, and export credit for domestic producers/exporters of refined and semirefined palm and coconut oils. The latter credit program consists of two types of credit: first, pre-shipment credit for working capital, and second, post-shipment credit to finance exports sold on credit terms. The pre-shipment credit supplies exporters with funds at a maximum annual rate of interest of 6 percent for up to 3 months, according to the NSPA.

The Malaysian Government, similar to the Argentine and Brazilian Governments, has pursued bilateral trade agreements to insure its palm oil exports. 2/ Malaysia has sharply expanded its exports of palm oil to a number of foreign markets previously supplied chiefly with soybean oil from the United States, and among its chief markets are India, Pakistan, and the Soviet Union. 3/

The EC.--A number of oilseed importing countries have agricultural policies that markedly influence either the type of oilseed product imported or the volume imported through a wide variety of policy instruments, 4/ although the EC, with its Common Agricultural Policy (CAP), stands out prominently among these importing countries with significant trade policies affecting U.S. oilseed trade. The CAP, according to one recent USDA study, may have acted as a stimulus rather than as a deterrent to overall world and U.S. exports of soybean meal and soybeans during the 1981-83 period. 5/ This

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1/ National Soybean Processors Association, op. cit., pp. 142-151.

2/ U.S. Department of Agriculture, "Foreign Agriculture Service Attache Report on Malaysia - Oilseeds and Products," Apr. 6, 1984.

3/ U.S. Department of Agriculture, Gary Ender, "Malaysia's Production and Exports of Palm Oil, "Southeast Asia: Outlook and Situation Report, May 1984, pp. 21-26.

4/ U.S. Department of Agriculture, Cathy L. Jabara, Trade Restrictions in International Grain and Oilseed Markets, January 1981.

5/ U.S. Department of Agriculture, John Dunmore and James Longmire, Sources of Recent Changes in U.S. Agricultural Exports, January 1984, concluded in part that EC policy acted to stimulate U.S. oilseed exports during the 1981-83 period.

is because the CAP may have boosted during this period, other economic factors being constant, total world demand for oilseeds and oilseed meals higher than it otherwise would have been. There was, however, a shift in the form of EC imports of oilseed products in that EC imports of soybeans declined during crop years 1979/80 to 1983/84, and those of soybean meal (largely of Argentine and Brazilian origin) rose. And, although the United States lost a share of the EC market for soybean meal to Brazilian and Argentine soybean meal, it may have been able to recoup markets in other world areas.

The trade policies of Brazil and Argentine may have played a role in this loss of the U.S. share of the EC soybean meal market, according to a trade complaint filed by EC soybean processors alleging unfair export subsidies for Brazilian and Argentine soybean meal. In 1983 and 1984, the EC Council initiated antidumping and countervailing duty proceedings against Brazilian and Argentine soybean meal exports to determine if the trade policies of those two countries were unfairly injuring EC soybean processors as well as diminishing U.S. soybean exports to that region. 1/

Dairy Products

World

Overall pattern.--Most of the international trade in the dairy sector occurs in products manufactured from milk (mostly butter, cheese, nonfat dry milk, and casein), as fluid milk is a perishable and bulky product that is difficult to ship. For a number of years, world exports of products containing butterfat (mostly butter and cheese) have been dominated by the EC (excluding intratrade) and New Zealand (tables 79 and 80). Exports of products not containing butterfat (mostly nonfat dry milk and casein) also have been dominated by the EC and New Zealand (tables 81 and 82), although shipments (mostly donations or subsidized sales) of nonfat dry milk by the United States have been notable. Although New Zealand is the world's second largest exporter of dairy products (behind the EC), New Zealand is reported to be among the world's most efficient and consistent producers and exporters of such products. Indeed, dairying is reported to be a major source of foreign exchange for the New Zealand economy. 2/ Accordingly, most other countries, including the EC and the United States--the world's largest producers of most dairy products, must subsidize their exports of dairy products to some degree in order to compete with New Zealand in world markets.

As shown in tables 79 and 80, the Soviet Union, the EC, the United States, and Japan are, by far, the world's largest importers of dairy products containing butterfat--mostly imports of cheese in the case of the United States and Japan. In the area of dairy products not containing butterfat, Mexico, Japan, the Soviet Union, and South America have predominated in imports of nonfat dry milk (table 81), whereas the United States has been the leading importer of casein (table 82), a product not produced in that country.

1/ See U.S. International Trade Commission, "Soybean Meal: EC Crushers Initiate Subsidy Complaint Against Brazilians and Argentines," Monthly Import Business Review, May 1984.

2/ Statement on behalf of the New Zealand Dairy Board, p. 2.

During the investigation, information was submitted that trade in dairy products, more than that for any other comparable commodity group, is influenced by governments both through direct control of trade flows across international borders and by interference with the market-price mechanism. 1/ Such governmental involvement in dairy trade was said to reflect the desire to provide income support and protection for domestic dairy farmers, even to the point of overriding the principals of comparative advantage and liberal trade. Thus, the normal pattern of international trade

Table 79.--Butter: Production and trade, by selected countries or regions, 1979-84

(In thousands of metric tons)

Country or region	1979	1980	1981	1982	1983	1984 1/
Producers:						
European Community	1,981	1,953	1,913	2,056	2,279	2,305
U.S.S.R	1,409	1,388	1,318	1,403	1,620	1,750
Eastern Europe	735	787	750	754	782	765
India	475	588	620	650	670	690
United States	447	519	557	570	589	550
New Zealand	255	255	247	248	259	260
Australia	105	84	79	76	88	112
All other	597	610	582	612	627	632
Total	6,004	6,184	6,066	6,369	6,914	7,064
Exporters:						
European Community 2/	3/	493	398	346	268	286
Other Western Europe	30	24	34	30	50	49
Eastern Europe	29	49	54	64	64	59
Australia	45	24	11	7	17	23
New Zealand	192	231	203	200	228	230
United States	0	0	54	68	34	50
All other	24	20	16	26	38	38
Total	3/	841	770	741	699	735
Importers:						
Soviet Union	174	249	215	151	203	175
European Community 2/	3/	106	113	126	107	103
Eastern Europe	35	34	86	50	27	38
All other	52	48	66	90	44	40
Total	3/	437	480	417	381	356

1/ Forecast.
2/ Excluding intra-EC trade.
3/ Data appears questionable; hence, they are not included.

Source: Compiled from official data contained in the U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular (FD3-82 for 1979 and FD1-84 for 1980-84).

1/ Ibid., p. 2.

Table 80.--Cheese: Production and trade, by selected countries or regions, 1979-84

(In thousands of metric tons)

Country or region	1979	1980	1981	1982	1983	1984 1/
Producers:						
European Community	3,212	3,156	3,421	3,532	3,562	3,633
United States	1,686	1,807	1,940	2,060	2,186	2,050
U.S.S.R	701	648	656	699	750	780
Eastern Europe	578	673	677	706	723	725
Other Western Europe	595	773	640	641	636	640
Australia	132	154	130	153	160	158
New Zealand	90	106	84	112	114	115
All other	890	845	848	866	841	850
Total	7,884	8,162	8,396	8,769	8,972	8,951
Exporters:						
European Community 2/	3/	477	541	371	375	401
Other Western Europe	165	169	172	165	165	166
Eastern Europe	122	136	119	132	132	131
New Zealand	63	69	80	81	75	86
Australia	51	61	54	57	54	55
United States	5	6	6	18	17	25
All other	16	14	16	16	21	22
Total	3/	932	988	840	839	886
Importers:						
United States	113	105	112	122	130	130
European Community 2/	3/	302	331	129	120	117
Other Western Europe	74	80	66	64	65	62
Japan	74	75	71	74	72	75
All other	172	75	92	91	76	75
Total	3/	637	672	480	463	459

1/ Forecast.
2/ Excluding intra-EC trade.
3/ Data appear questionable; hence, they are not included.

Source: Compiled from official data contained in the U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular (FD3-82 for 1979 and FD1-84 for 1980-84).

Table 81.--Nonfat dry milk: Production and trade, by selected countries or regions, 1979-84

(In thousands of metric tons)

Country or region	1979	1980	1981	1982	1983	1984 1/
Producers:						
European Community	2,048	2,041	2,022	2,161	2,453	2,515
United States	412	526	596	635	680	600
U.S.S.R	356	360	362	386	400	410
Other Western Europe	208	210	214	232	254	268
New Zealand	174	172	181	200	165	160
Australia	75	54	54	77	91	122
All other	795	737	776	810	813	860
Total	4,068	4,100	4,205	4,501	4,856	4,935
Exporters:						
European Community 2/	666	578	434	340	247	339
Other Western Europe	36	34	44	46	71	76
United States	84	131	155	144	265	275
New Zealand	141	172	163	135	144	180
Australia	18	12	7	29	37	59
Eastern Europe	93	60	62	119	90	90
All other	20	29	8	18	38	26
Total	1,058	1,016	873	831	893	1,045
Importers:						
Mexico	76	176	149	97	112	150
Japan	3/ 75	102	83	93	92	95
Soviet Union	40	70	77	90	75	70
South America	79	117	53	49	80	67
India	3/ 75	36	78	64	43	43
All other	83	48	56	53	41	49
Total	428	549	496	446	443	474

1/ Forecast.
2/ Excluding intra-EC trade.
3/ Japan and India were reported as having a combined total of 150,000 metric tons in 1979.

Source: Compiled from official data contained in the U.S. Department of Agriculture, Foreign Agricultural Service Foreign Agriculture Circular, (FD3-82 for 1979, and FD1-84 for 1980-84).

Table 82.--Casein: Production and trade, by selected countries or regions, 1979-84

(In thousands of metric tons)

Country or region	1979	1980	1981	1982	1983	1984 1/
Producers:						
European Community 2/	77	94	84	101	110	103
New Zealand	63	66	60	47	65	67
Eastern Europe	34	28	26	36	40	30
Australia	17	15	14	8	12	14
All other	3	3	3	2	2	2
Total	194	206	187	194	229	216
Exporters:						
New Zealand	51	68	52	56	57	67
Australia	8	14	10	9	11	13
European Community 2/	3/	32	33	42	58	55
Poland	7	15	8	8	15	8
All other	2	2	2	1	1	1
Total	3/	131	105	116	142	144
Importers:						
United States	75	69	58	80	72	76
European Community 2/	3/	27	25	13	22	21
Total	3/	96	4/ 85	93	94	97

1/ Forecast.
2/ Excluding intra-EC trade, except in 1979.
3/ Data appears questionable; hence, they are not included.
4/ Includes 1,000 metric tons imported by Australia.

Source: Compiled from official data contained in the U.S. Department of Agriculture, Foreign Agricultural Service Foreign Agriculture Circular, (FD3-82 for 1979, and FD1-84 for 1980-84).

flows in dairy products was reported to be distorted through restrictions on access for imports to the markets of the major industrialized nations and the widespread use of subsidies by these nations to facilitate the disposal, by export, of the surpluses they produced. As a result, international markets that are open to commercial competition were reported to amount to some 2 to 3 percent of the world's consumption of dairy products. 1/

Major shifts.--From 1980 to 1983, world exports of butter dropped irregularly from 841,000 metric tons to 669,000 metric tons, or by about 17 percent; exports of cheese dropped from 932,000 metric tons to 839,000 metric tons, or by about 10 percent. The most noted drop in exports among areas during 1980-83 was the decline in shipments from the EC, the area that accounted for about 60 percent of the world's butter and cheese exports in 1980, but only 40 percent in 1983. During that period, exports of butter from the EC fell by about 85 percent and exports of cheese dropped by 30 percent. The drop in these exports largely reflected the suspension in 1980 of export refunds on EC sales to certain Eastern European countries, the U.S.S.R., and Mongolia. The EC export refunds were reintroduced in 1983, however, and in 1984, exports of butter rebounded to 735,000 metric tons and those of cheese rose to 886,000 metric tons, or by about 5 percent above the level of 1983.

During 1980-84, exports of butter from New Zealand ranged from 200,000 metric tons (1982) to 231,000 metric tons (1984) and exports of cheese increased irregularly from 69,000 metric tons in 1980 to 86,000 metric tons in 1984. New Zealand increased its share of world exports of butter and cheese from 20 percent in 1980 to about 24 percent in 1983 and 1984, reflecting New Zealand's competitive position in the world dairy market. The remaining notable world suppliers of butter and cheese--Western European countries other than the EC (mainly Finland and Sweden) and Eastern European countries (mainly East Germany and Romania)--accounted for about 11 percent each of the total world exports in 1984 compared with 8 and 9 percent, respectively, in 1980. Exports from these areas increased only gradually during 1980-84 and generally involved some form of financial assistance. Although exports of butter and cheese from the United States, a major world producer but small supplier (5 percent in 1984), showed an upward trend, such exports reflected mostly donations or subsidized sales from Government-owned stocks.

During 1979-84, world exports of nonfat dry milk declined from 1,058,000 metric tons in 1979 to 831,000 tons in 1982, or by about 21 percent and then increased by about 26 percent to 1,045,000 tons in 1984. The EC was the largest supplier of nonfat dry milk during 1979-84 (about one-third of the total in 1984 compared with 60 percent in 1979). However, the EC exports, reflecting the aforementioned changes in export refunds, declined from 666,000 metric tons in 1979 to 247,000 metric tons in 1983, or by about 60 percent, before rising to 339,000 metric tons in 1984 (about 37 percent above the 1983 level). All of the drop in EC exports of dairy products not containing butterfat was in nonfat dry milk. Indeed, EC exports of casein increased from 32,000 metric tons in 1980 to 55,000 metric tons in 1984, or by about 72 percent, as the demand for casein for use as an ingredient in a wide variety

1/ Ibid., p. 3.

of food products has increased. New Zealand was the world's second largest exporter of nonfat dry milk and the largest exporter of casein during 1980-84. That country's annual share of world exports of the products ranged from 24 to 27 percent during the period. Exports of nonfat dry milk from the United States (the world's third largest exporter) increased from 84,000 metric tons in 1979 (8 percent of the world total) to 275,000 metric tons in 1984 (19 percent of the total). The exports from the United States consisted of donations or subsidized sales of nonfat dry milk from the inventories of the CCC. The remaining 15 to 20 percent of the world exports of nonfat products has consisted mostly of nonfat dry milk from Canada and nonfat dry milk and casein from Australia.

United States

Overall pattern.--U.S. exports of dairy products historically have been small, in part because of the effects of national agricultural policies of certain U.S. major trading partners, such as the European Community, which provide restitution payments, or subsidies, for agricultural exports. Also, U.S. prices for dairy products, bolstered by the price-support program of the USDA, have been some one and one-half to two times higher than world market prices. 1/ For example, in late 1984, the USDA purchase price for butter was about \$1.43 per pound; for Cheddar cheese, \$1.35 per pound; and for nonfat dry milk, \$0.91 per pound. At the same time, the world market price (European Port) for butter was about 60 cents per pound; for cheese, 55 cents per pound; and for nonfat dry milk, 30 cents per pound.

Although U.S. imports of dairy products were valued higher than exports during 1979-84, the value of imports has been equivalent to only 1 percent to 2 percent of the value of production. The value of imports has been small, because imports of most dairy products derived from cows milk, except a few milk protein products such as casein, have been subject to quotas under section 22 of the Agricultural Adjustment Act.

Major shifts.--During 1979-83, the value of U.S. exports of dairy products increased from \$120 million to \$364 million (about 1 percent of production in 1983), or by nearly twofold; during January-September 1984, exports (in volume) were about 35 percent larger than in the corresponding period of 1983 (table 83). Most of the increased exports consisted of donations or subsidized sales of butter and nonfat dry milk. Exports of butter increased from 1 percent of the total dairy product exports in 1979 to 36 percent in 1982; in 1983, butter accounted for 14 percent of the exports. Exports of nonfat dry milk increased irregularly from 32 percent of the total in 1979 to 61 percent in 1983. Exports of the other dairy products--fluid and

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1/ World market prices for dairy products are basically reflective of the selling prices for such products produced in countries such as New Zealand and Australia.

Table 83.--Dairy products: U.S. exports, by major markets, 1979-83, January-September 1983, and January-September 1984

Market	1979	1980	1981	1982	1983	January-September-- 1983	January-September-- 1984
	Quantity (metric tons)						
Mexico	43,442	73,926	76,326	49,223	107,110	70,491	46,335
Poland	23	60	55,163	37,675	42,498	36,481	26,633
Canada	8,168	9,114	7,952	8,841	8,931	7,177	5,296
Egypt	106	20	8,057	17,960	16,825	9,321	42,784
Belgium and Luxembourg	84	67	10,224	15,361	9,559	8,814	1,476
Japan	5,102	7,100	11,043	15,863	14,139	11,484	15,754
Indonesia	2,487	3,143	1,508	2,000	7,860	6,144	5,353
Hong Kong	1,930	2,313	2,550	2,132	2,868	1,572	2,865
El Salvador	834	1,632	2,800	3,506	11,806	7,927	3,563
Jamaica	297	129	111	6,937	5,092	2,495	12,648
All other	72,403	101,599	120,577	160,186	149,676	104,895	199,096
Total	134,876	199,101	296,311	319,584	376,364	266,801	361,803
	Value (1,000 of dollars)						
Mexico	28,639	52,122	76,514	59,676	107,397	72,415	35,208
Poland	235	663	66,346	39,163	39,575	33,335	26,868
Canada	12,484	11,453	15,087	14,943	16,923	13,464	11,795
Egypt	60	72	3,411	9,609	15,067	5,736	49,146
Belgium and Luxembourg	736	635	18,082	26,716	14,692	13,617	1,418
Japan	7,839	9,927	12,545	15,421	14,559	11,482	12,121
Indonesia	1,376	1,713	1,337	1,870	7,613	6,433	4,081
Hong Kong	4,954	3,214	4,050	3,986	7,494	4,347	5,449
El Salvador	570	696	1,273	1,421	7,111	4,757	2,447
Jamaica	271	302	341	11,715	7,033	4,288	11,028
All other	62,746	72,136	107,804	155,186	126,461	92,066	152,703
Total	119,909	152,933	306,791	339,706	363,925	261,941	312,264

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

condensed or evaporated milk and cream, cheese, dietary supplements, and milk protein products--declined as a share of total exports during the period. The exports of butter and nonfat dry milk, from inventories owned by the CCC of the U.S. Department of Agriculture, had been purchased in order to support the prices of milk as required by law.

The small portion of the aforementioned exports that consisted of sales were sold at about one-half, or less than one-half, of the original CCC purchase price (i.e., at or below the world price). Most of the exports (donations and/or subsidized sales) of butter and nonfat dry milk have been to Poland, Mexico, Egypt, El Salvador, Pakistan, Peru, and New Zealand. The exports to New Zealand consisted exclusively of a CCC sale of surplus butter at about 60 percent of the original purchase price. 1/ Such a sale was said by the U.S. Secretary of Agriculture to offer the best means of reducing CCC carrying and storage costs while preventing a large quantity of U.S. butter from disrupting world butter markets or trading patterns. New Zealand, a leading exporter of dairy products, was said to be in a position to manage the movement of butter into world markets in a nondisruptive manner. As a condition of the sale, the butter was not to be sold to the U.S.S.R.

During 1979-83, the value of U.S. imports of dairy products increased from $426 million to $606 million. The value of imports in January-September 1984 was about 16 percent larger than that in the corresponding period of 1983 (table 84). During 1979-83, some 95 percent of the U.S. imports of dairy products consisted of cheese and casein; about two-thirds of that total has been cheese, and one-third has been casein. Over the period, there has been an absolute increase of about 7 percent annually in the value of imports of cheese and a 13-percent increase in the value of imports of casein, notwithstanding a decline in the value of imports of casein in 1983. Most of the imports of cheese have been subject to quotas; imports of casein are quota free. Most of the imports of cheese have been from Denmark, New Zealand, Italy, and France. There has been no significant change in countries of origin, as the quotas are allocated by the USDA to historical suppliers. The imports of casein have been mostly from New Zealand, Australia, and Ireland.

Government programs

United States.--The two principal U.S. Government programs for milk are the price-support program and the Federal Milk Marketing Order Program. The objective of the price-support program is to support the price of milk at a level that will assure an adequate supply of pure and wholesome milk to meet current needs, reflect changes in the cost of production, and assure a level of farm income adequate to maintain productive capacity sufficient to meet anticipated future needs. This objective is accomplished by the CCC of the USDA purchasing unlimited quantities of butter, Cheddar cheese, and nonfat dry milk that meet certain specifications at preannounced support prices. These three products utilize about 40 percent of the total U.S. market supply of milk and 70 percent of the milk used in manufactured dairy products. Thus, the purchase prices for these three products, set by the USDA, are designed to enable manufacturers of dairy products to pay farmers the announced support price for milk used for manufacturing.

1/ Some of the butter was shipped by the New Zealand Dairy Board directly from the United States to Belgium for processing into butter oil.

Table 84.--Dairy products: U.S. imports, by major sources, 1979-83, January-September 1983, and January-September 1984

Source	1979	1980	1981	1982	1983	January-September-- 1983	January-September-- 1984
	Quantity (metric tons)						
New Zealand	70,168	60,176	56,710	71,492	63,778	39,954	59,199
Denmark	12,996	17,335	19,097	19,612	19,963	14,150	17,160
France	7,303	11,123	12,579	17,160	16,227	11,715	15,303
Ireland	6,967	11,468	11,666	18,766	16,734	10,884	14,368
Italy	6,381	6,602	8,435	8,091	8,434	5,557	10,403
Federal Republic of Germany	2,541	6,390	10,355	10,545	13,750	9,687	10,780
Norway	9,474	8,776	8,573	8,514	8,389	5,696	6,186
Netherlands	6,887	7,380	8,521	10,830	11,428	7,312	10,539
Finland	12,197	11,184	11,347	11,005	10,499	7,944	8,245
Australia	16,019	13,264	12,832	11,543	13,249	9,287	9,435
All other	46,976	37,044	39,654	40,663	49,756	35,572	36,061
Total	197,910	190,742	199,770	228,219	232,207	157,758	197,679
	Value (1,000 dollars)						
New Zealand	105,446	120,975	130,913	165,624	139,543	92,251	121,320
Denmark	38,591	52,244	58,276	57,636	58,030	41,503	46,032
France	27,960	41,273	43,370	54,364	51,573	37,627	45,128
Ireland	13,213	32,944	33,585	55,615	46,005	31,180	33,266
Italy	23,740	25,517	35,264	39,620	39,615	26,254	33,577
Federal Republic of Germany	6,035	16,636	24,286	27,938	37,108	26,740	27,271
Norway	31,850	30,881	30,837	32,529	31,462	21,298	21,942
Netherlands	18,792	20,812	23,659	29,631	30,061	20,042	23,584
Finland	27,988	29,997	30,171	29,917	29,034	21,800	23,824
Australia	27,318	28,780	33,740	27,500	29,027	19,996	18,565
All other	105,237	97,289	97,459	103,896	114,628	80,665	92,049
Total	426,170	497,347	541,561	624,272	606,087	419,355	486,559

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

The Federal Milk Marketing Order Program sets minimum prices that must be paid by processors of milk to farmers under the order program for Grade A milk (milk eligible for fluid consumption) on the basis of its end use, i.e., whether the milk is used for beverage purposes or for manufacturing dairy products. The 45 Federal Milk Marketing Orders operating in the United States on January 1, 1984, regulated the handling and pricing of about 70 percent of all milk sold to plants and dealers. Federal Milk Marketing Order prices are based on the Minnesota-Wisconsin (M-W) price series for manufacturing grade milk. About one-half of the milk produced in that two-State area is used for making butter, Cheddar cheese, and nonfat dry milk, the three products purchased under the price-support program. When market prices for those products fall to the support level in that area, prices fixed under the price-support program are reflected in the M-W price series. Thus, that price series, bolstered by the purchase prices of the USDA for butter, Cheddar cheese, and nonfat dry milk, also acts as the prime mover for milk prices in all Federal order markets.

In order to protect the price-support program for milk from import interference, and thus preventing U.S. dairy product prices from supporting the world prices, the United States has imposed quotas under section 22 of the Agricultural Adjustment Act on most products made from cow's milk, except casein and a few other milk protein products. Although the cheese quotas have been enlarged since they were originally imposed in 1953, so as to permit imports to share in the growing consumption, the dairy product quotas generally limit overall imports to some 1 to 2 percent of milk and dairy product consumption. Imports of casein supply all of consumption, however, and, indeed, such imports provide several countries such as New Zealand and Australia an avenue by which they can move an important part of their efficient production into the United States.

European Community 1/--At the center of the EC's dairy support program is the annually fixed target price for milk and, on the basis of this price, an intervention price for butter and nonfat dried milk (NFDM). The target price is a minimum price that the EC seeks to obtain for producers; it is not guaranteed. 2/

The milk target price is supported through the purchase of butter, nonfat dried milk (NFDM), and certain types of cheese (produced in Italy) by members' intervention agencies and through a complex system of EC consumption, production, and export payments. Intervention prices are set annually at a level that should ensure that the milk producer achieves the target price. Intervention is designed to support market prices by purchasing butter in times of surplus and by releasing stocks in times of shortage. In the past, intervention purchases have been open ended. However, the EC has recently imposed new production quotas on deliveries to intervention agencies that is expected to reduce excess supplies. 3/

Variable import levies are imposed to offset differences between usually higher domestic prices and lower world market prices, thus insulating domestic producers from imports 4/. A license is also required to import dairy products from third countries. These restrictions (levies and licenses) have effectively closed the EC import market for dairy products except for special arrangements with third countries.

The EC grants export restitution payments to cover the difference between domestic market and world price levels for dairy products. Without such export payments, EC dairy products would not be competitive in world markets. The EC uses export restitution payments to dislodge large intervention stocks

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1/ This section is based, in part, on works by the U.S. Department of Agriculture, Foreign Agricultural Service, William Paddock, "Dairy Systems and Policies of Selected Western European Countries," Foreign Agriculture Circular--Dairy, March 1983, and by Simon Harris, et. al., The Food and Farm Policies of the European Community.

2/ The target price for the 1982-83 marketing year was about $12.00 per hundredweight.

3/ In 1983, the EC spent approximately 3.1 billion European Currency Units on dairy intervention. The 1983-84 intervention price was 357.9 ECU's per 100 kilograms for butter; 149.6 ECU's per 100 kilograms for NFDM powder; and from 361-480 ECU's per 100 kilograms for certain cheeses.

4/ The annually set guaranteed threshold price (minimum import price) represents the lowest price a product from a nonmember country may enter the EC. The EC aims to stabilize market prices for butter and NFDM within limits set by intervention prices on the one hand, and threshold prices on the other. The threshold price includes certain margins that protect the domestic processing industry. It is normally above domestic wholesale levels except in times of short supply. It is the difference between the threshold price and the minimum offered price from third countries that determines the variable levy.

that exceed domestic demand. The EC has discovered that the cost of maintaining large public stocks is much higher than paying producers to export the products. 1/ The EC has made butter sales to the Soviet Union that fall below the minimum prices set by the International Dairy Agreement. 2/

The EC has a number of surplus-control measures. A consumer subsidy is granted on butter to support producer prices and boost sales in four of the member states. In addition, prices may be reduced for a specific quantity of butter for a limited period, such as "Christmas butter," to stimulate demand and reduce public stocks. 3/ The EC grants subsidies to reduce prices for milk consumption by school children, those receiving social assistance, the armed forces, nonprofit groups, and processing industries, such as ice cream producers and bakeries. The EC also provides subsidies on NFDM used for the manufacturer of casein and on NFDM fed to livestock.

The EC permits imports of New Zealand butter at preferential rates. The special arrangement for New Zealand originated in the British accession treaty (to the EC in 1973), which provided import ceilings that have since been progressively reduced. In addition, the EC imports certain cheeses from New Zealand and other countries 4/ on favorable terms.

The EC's dairy program takes about 30 percent of the total CAP budget. Structural surpluses are deep seated and difficult to reduce. The EC has tried many schemes to decrease surpluses but has found it very difficult to decrease production. The EC's dairy program budget in 1982 amounted to over $4 billion. 5/ Of this amount, $2.3 billion was spent on export restitution payments, and $1.7 billion was spent on price supports and storage costs.

In 1984, the EC adopted a 5-year program to cap the amount of annual purchases of milk guaranteed by intervention. 6/ The total production quota is divided among the members, who then give their producers individual quotas, thus forcing members and their producers to reduce output. Quotas for milk delivered by producers to dairy processors have been allocated to most members at 1 percent over 1981 deliveries (with some exceptions for Greece, Ireland, and Italy, whose quotas were set at 1983 deliveries). Deliveries above

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1/ In 1983, the EC spent 1.3 billion ECU's for dairy export subsidies.

2/ In December 1984 the United States announced its intention to withdraw from the International Dairy Agreement to protest the EC's subsidized butter sales to the Soviet Union.

3/ However, butter consumption does not appear to increase proportionately to price reductions. About one-half of overall EC domestic consumption is subsidized. Most NFDM products are sold at subsidized rates as well.

4/ These countries include Canada, Austria, Finland, Romania, Switzerland, Bulgaria, Hungary, Israel, Turkey, Cyprus, and Australia.

5/ Commission of the European Communities, "International Trade in Dairy Products and EEC Policy," Speech before the Wisconsin Farm Bureau Federation Dairy Conference, by Ulrich Knueppel, Mar. 10, 1983.

6/ The annual EC quota for milk deliveries is 99.2 million tons for 1984-85 and 98.4 million tons for each subsequent year. In cases where there are exceptional problems in exceeding the quota, an additional quota is set up at the beginning of each marketing year. For 1984-85, an additional quota was fixed at 335,000 tons for Ireland, Luxembourg, and the United Kingdom.

individual producer quotas are subject to supplementary levies in addition to the normal co-responsibility levies. 1/ In addition, milk target prices are frozen at 1983 levels.

Australia--Production and marketing of butter, butter oil, ghee, butter powder, cheese, skim milk powder, whole milk powder, and casein is regulated by the Australian Dairy Corporation (ADC). The ADC regulates handling and storage of these dairy products for export, promotes and develops overseas markets, 2/ and provides a link between producers and the Reserve Bank that provides funds under the Government's support program.

The ADC controls exports of leviable dairy products by issuing export certificates at specific value for particular export markets and/or products. There is nothing to prevent an exporter from selling above or below the export certificate value. However, the exporter must, in effect, return the full export certificate value to the ADC and receive in return a payment at the assessed export price.

Domestic prices are fixed by the Commonwealth Dairy Products Equalization Committee (CDPEC), a nonprofit body of representatives of the State Dairy Boards and other industry groups. The Government guarantees a floor price for butter, cheese, casein, and skim milk powder. Export prices are determined on a normal competitive commercial basis, but for most markets, the ADC periodically determines export pool returns. Export pool returns are returns that exporters must pay into the appropiate product pool. Domestic prices are usually substantially higher than world prices. In 1981-82, domestic prices were between 8 and 20 percent higher than world prices.

Australia levies taxes on production of domestically sold butter, certain cheeses, skim milk powder, whole milk powder, and casein dairy products; Australia also pools export returns from each year's production--enabling exporters to receive the same average export return--and subsidizes exports from a levy on domestic consumption of leviable products. 3/ Levies equal the

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1/ If members opt to pay their supplementary levy at the milk producer (farm) level, the rate is 75 percent of the milk target price on any deliveries in excess of the quota. If they choose to apply the levy at the dairy level, the rate is 100 percent of the target price. When milk is sold directly to consumers, the rate of levy is 75 percent of the target price on milk in excess of the quota.

2/ Financing for the ADC's overseas marketing activities is derived from a levy on butterfat used in the manufacture of butter, butter oil, and cheese.

3/ Without the levy, the Government argues that domestic sales would be more attractive than export sales and competition to make a domestic sale would drive down domestic prices. The home market absorbs about 80 percent of the country's dairy production. The levy acts more in the nature of a minimum internal price. Dairy producers may try and achieve a higher price if market circumstances allow this. Revenues earned from the levy also fund the ADC's A$6 million budget for dairy promotion.

difference between the CDPEC-set domestic price and the assessed average export price. Production levies provide producers with a so-called equalized return from domestic and export sales. 1/ The levy is collected on domestic sales and disbursed across both domestic and export sales. Levy proceeds are redistributed among manufacturers at the end of the season to ensure that they receive an equalized return from total domestic and export sales.

With the exception of cheese, customs duties generally keep dairy imports negligible. Australia also has an arrangement with New Zealand to limit penetration of the Australian market, since New Zealand generally has much lower production costs than Australia. However, the two countries have recently agreed to move towards freer bilateral trade in dairy products.

New Zealand 2/.--The New Zealand Dairy Board 3/ purchases and sells all cheese and butter manufactured for export; purchases and sells all other dairy products for export as it may determine and controls exports that it does not acquire and market. The Board smooths out fluctuations in export earnings to stabilize income by allocating net annual export earnings between yearend distributions to producers and the Dairy Industry Reserve Account. At yearend, the net surplus or deficit in the trading of milkfat products and solids-nonfat products is tallied. The difference between the export revenues and costs is determined. Unsold stocks are valued at cost or estimated market value, whichever is lower, and transferred to the following year's accounts. If a surplus has been gained, the Board may distribute up to 50 percent of its trading surplus back to producers at yearend, and the remainder is retained to finance any future deficits or as loans for capital improvements. If a deficit has resulted because world prices are lower than domestic acquisition prices, it is financed from reserve funds. In the long term, the account is self-balancing, and severe fluctuations in export prices are smoothed out when translated into purchase prices.

The Government encourages producers to maximize export sales of manufactured dairy products at world market prices. The New Zealand Dairy Board sets prices for manufactured dairy products at the start of each production season on the basis of expected world market prices and the return

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1/ Equalization is achieved by pooling arrangements for domestic and export returns. If a manufacturer's average sales prices exceed the average pool value, it must pay the difference into the pool. Government payments under this scheme are made only if the equalized return falls below the underwritten value. Between the 1980 and 1983 seasons, no Government contribution to underwriting was necessary.

2/ This section is based in part on work by Congressional Research Service, A. Ellen Terpstra, A Description of the Dairy Industries and Policies of the United States, New Zealand, and Canada, June 1982, and briefing materials prepared by the U.S. Department of Agriculture, Foreign Agricultural Service, Dairy, Livestock and Poultry Division.

3/ The 14-member Board consists of representatives from the Government, the Milk Board, the Cooperative Dairy Co., and producers.

for New Zealand dairy product exports. 1/ The Dairy Board determines the purchase price for the season for cheese. Although the Board is authorized to regulate the sale and distribution of cheese within the country, the cheese-manufacturing industry is not strictly controlled; manufacturers may sell to any distributor or processor or directly to retailers. Only cheese for export is controlled.

New Zealand has no direct export subsidies for dairy products. New Zealand's low production costs are due to a favorable climate that allows for a long pasture season, thus eliminating expensive feed costs, efficient use of on-farm labor, mechanized milking systems, and advanced methods of animal husbandry and management. As a result, the country's dairy sector and Government policies are export oriented, since prices are competitive on the world market. Programs to assist producers are aimed at smoothing out annual income fluctuations that result from changes in world prices and are self-financing because of the country's export strength.

Japan 2/.--The National Government sets a standard transaction price and a guaranteed purchase price in effect nationwide for milk used to make dairy products. The standard transaction price is the price at which the milk processors buy milk from farm cooperatives. The guaranteed price, which is higher than the standard transaction price, is the price that the Government guarantees to farmers. The Government pays farmers through the cooperatives the difference between the standard transaction price, which was 68.4 yen per kilogram in 1983, and the guaranteed purchase price, which was 90.1 yen per kilogram in 1983. 3/

The Government does not cover the difference for all sales of milk to processors for manufactured products. In 1982, the Government paid the difference between the guaranteed purchase price and the standard transaction price for only 1.93 million tons of milk, or 49 percent of the 3.94 million tons of milk that processors bought for manufactured products. The Government asks the milk processors, which apparently accede, to pay the full guaranteed price to the farm cooperatives for the milk not covered by the Government price guarantees.

1/ The 1982-83 minimum guaranteed price was set at US$5.24 per 100 pounds of milk at 4.8 percent butterfat. The Board offers to purchase all products from processors at certain prices but the price received by the dairy farmer depends on what cooperative company was supplied, what products were processed--if products were made for which a premium price was offered--and the efficiency of the processing operation.

2/ This section is based on a briefing prepared by the U.S. Department of Agriculture, Foreign Agricultural Service, Dairy, Livestock, and Poultry Division, and by articles published by the U.S. Department of Agriculture, Economic Research Service.

3/ The guaranteed price is determined on the basis of production costs of milk in districts where production costs are relatively low and rationalization of production is expected in the future. A limit is set on the quantity of milk for manufacturing for which the subsidy payments are made.

In addition to its national system of price supports, the Government has a program of voluntary production controls. As a result of excessive milk production in the 1970's, the Government undertook a campaign in the early 1980's to encourage culling low-productivity cows. This has helped curb milk production and brought national supply and demand for milk into balance.

Japan imposes import quotas on fluid milk and fresh cream, evaporated milk, and processed cheese. Growing imports of compound butter (butter mixed with margarine) have brought pressure for reimposing a quota on this item. Instead, the Government has sought voluntary restraint agreements from exporting countries. Thus far, only New Zealand, its largest supplier, has agreed to cut exports. Imports of most other dairy products have declined.

The Government has promoted the Japanese dairy industry by a complicated system of price- and income-support programs. 1/ Japan's relatively high-cost dairy production, maintained by trade barriers and support prices, is among the most heavily protected in the world. 2/ Because of import restrictions on dairy products in the form of quantitative restrictions and duties, consumer prices are considerably higher than in many other developed countries. 3/ Japan is almost self-sufficient in dairy production because of its high price supports and a combination of tariffs and quotas that limit imports primarily to natural cheese for processing and powdered milk for feeding purposes. The structure of price supports has encouraged the processing of manufacturing milk into butter and NFDM rather than cheese. Therefore, Japan has high stocks of butter and milk powder, but it imports 90 percent of its cheese for consumption.

Meats, Including Poultry, and Eggs

World

Overall pattern.--Most of the international trade in the animal and animal products sector occurs in meat and meat products, as live animals are difficult to transport, except between contiguous areas, and many countries maintain a variety of health and sanitary restrictions on imports of live animals. International trade in meat, moreover, is generally influenced by trade restrictions of the importing countries such as quotas, variable levies, high tariffs, or some combination thereof, health and sanitary measures, or State trading. In addition, the value of beef exports by a number of the traditional exporting countries such as Australia, Argentina, New Zealand, Brazil, and Uruguay has been depressed in recent years by the need for these countries to meet the subsidized prices of the EC (a major net importer) in disposing of its surplus production on international markets. 4/

1/ U.S. Department of Agriculture, William Cole, "Japan Remains the Largest Market for U.S. Agriculture Exports in 1980, "Foreign Agriculture Trade of the U.S.

2/ U.S. Department of Agriculture, Economic Research Service, Japan: Production and Imports of Food: An Analysis of Welfare Cost of Protection, 1977, p. 15.

3/ Ibid. p. 16.

4/ Statement on behalf of the New Zealand Meat Producers Board, p. 3.

As a result, it is reported that the international beef market was seriously depressed in 1984, and indications are that it will remain so or possibly worsen in 1985, particularly as dairy reduction policies in the EC and the United States add to domestic beef supplies. 1/

From 1979 to 1984, world exports of meat increased irregularly from 5,983,000 to 7,372,000 metric tons, or by about 23 percent. Exports of beef and veal dropped from 56 percent of the total world meat exports in 1979 to 48 percent of the total in 1984, and exports of lamb, mutton, and goat meat declined from 16 to 14 percent of the total. However, exports of poultry meat increased from 14 percent of the total in 1979 to 20 percent in 1984, and exports of pork increased from 16 to 18 percent of the total. Among the facts underlying the growing importance of poultry and pork in the world export market, at the expense of trade in other red meats, is the ability of poultry and, to a lesser degree, swine to convert feed (mostly corn) to meat more efficiently than most other animals.

For a number of years the EC (excluding intratrade), certain of the NME's, Brazil, Australia, and New Zealand combined have accounted for about 70 percent of the world exports of meat; other notable exporters have been Argentina and the United States. These countries also are among the largest meat-producing countries (tables 85 to 88). The major importers of meat--taking about 75 percent of the total--have been the United States, the Soviet Union, the EC, and Japan. The EC, certain NME's, and the United States, the major producers of eggs (table 89), account for about 80 percent of the exports of eggs, and Hong Kong, Japan, the EC, and Switzerland account for nearly 70 percent of the imports.

Major shifts.--Exports of beef and veal, pork, and poultry meat, for 1979-83, by specified countries, are shown in tables 89 through 95. As is shown in tables 90 and 91, Australia, a country endowed with the grazing lands needed to produce cattle for an export-oriented beef industry, had been the largest exporter of beef and veal until 1984, although that country's share of the total exports had been declining from 1979 through 1983. Australia's declining share of the world exports, along with the diminishing share of other traditional exporters such as Argentina and New Zealand (all resulting from reduced export availabilities), have been captured by increased exports from Brazil and the EC; by 1984, the EC was the largest exporter of beef and veal. The increased exports from the EC are reported to be due, in major part, to the establishment of restitutions by the EC on beef shipments to a number of markets. These increased exports (along with those from Brazil) are reported to have exerted a downward pressure on world prices. 2/

During 1979-83, exports of pork (tables 92 and 93) were dominated by certain NME's, the EC, and, to a lesser degree, Canada. The doubling in exports of pork by Canada from 1979 to 1983 largely reflects increased production of pork in Canada that was shipped mostly to the United States. The United States experienced decreased production and higher prices of pork in 1982. U.S. imports of swine and pork from Canada are currently subject to a countervailing duty investigation.

1/ Ibid., p. 2.
2/ Statement submitted on behalf of the New Zealand Meat Producers Board, p. 6.

Table 85.--Beef and veal: Production, exports, and imports, by specified countries, 1979-84

Country	1979	1980	1981	1982	1983	1984 1/
	1,000 metric tons, carcass weight					
Production:						
United States	9,925	9,999	10,353	10,425	10,748	10,755
European Community 2/	6,881	7,126	6,933	6,601	6,837	7,281
U.S.S.R	7,029	6,645	6,627	6,618	7,000	7,200
Argentina	3,092	2,822	2,929	2,579	2,440	2,520
Brazil	2,100	2,150	2,250	2,400	2,400	2,400
Australia	1,770	1,533	1,420	1,677	1,389	1,274
Canada	946	971	1,016	1,032	1,036	1,010
New Zealand	512	496	498	515	520	429
All other	8,652	8,265	8,689	8,966	8,785	8,893
Total	40,907	40,007	40,715	40,813	41,155	41,762
Exports: 3/						
Australia	1,089	840	703	942	767	640
Brazil	110	169	279	357	400	600
European Community 2/	296	589	586	416	483	781
Argentina	697	469	486	522	415	270
New Zealand	343	346	347	377	371	338
Certain NME's 4/	318	377	276	279	271	269
United States	78	80	100	115	125	142
All other	397	373	561	535	604	579
Total	3,328	3,243	3,338	3,543	3,436	3,618
Imports: 3/						
United States	1,103	946	799	888	885	805
European Community	347	329	294	407	314	274
U.S.S.R	240	385	452	439	529	475
Japan	185	174	174	174	196	215
Egypt	5/	95	120	108	139	145
Canada	86	80	79	87	91	110
Republic of Korea	60	2	34	73	67	34
All other	487	382	506	381	302	357
Total	2,508	2,393	2,458	2,557	2,523	2,381

1/ Forecast.
2/ Excludes intra-EC trade.
3/ Carcass weight.
4/ Bulgaria, Czechoslovakia, East Germany, Hungary, Romania, Poland, and Yugoslavia.
5/ Not available.

Source: Compiled from the U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FL&P-2-84 for 1981-84, and FL&P-1-82 for 1979, and FL&P-3-83 for 1980).

Note: Because of rounding, figures may not add to the totals shown.

Table 86.--Pork: Production, exports, and imports, by specified countries, 1979-84

Country	1979	1980	1981	1982	1983	1984 1/
	1,000 metric tons, carcass weight					
Production:						
European Community 2/	9,061	9,285	9,466	9,417	9,710	9,699
United States	7,008	7,537	7,199	6,454	6,894	6,629
U.S.S.R	5,289	5,183	5,220	5,265	5,800	6,000
Japan	1,430	1,475	1,396	1,427	1,429	1,460
East Germany	1,168	1,253	1,317	1,182	1,193	1,218
Hungary	918	944	944	960	1,003	1,017
Romania	925	915	925	816	875	860
Canada	750	877	840	833	852	860
Poland	1,855	1,787	178	183	184	176
All other	8,104	7,756	21,196	22,321	22,871	22,893
Total	36,508	37,012	48,681	48,858	50,811	50,812
Exports: 3/						
Certain NME 4/	403	510	549	486	546	546
European Community 2/	248	274	320	222	294	335
Canada	80	117	129	163	157	165
United States	132	114	139	97	99	84
All other	86	91	279	358	303	324
Total	949	1,106	1,416	1,326	1,399	1,454
Imports: 3/						
United States	226	249	245	278	318	409
Japan	188	155	262	202	238	250
European Community 2/	140	167	122	121	109	100
U.S.S.R	125	120	115	115	100	100
All other	142	87	207	161	139	218
Total	821	778	951	877	904	1,077

1/ Forecast.
2/ Excludes intra-EC trade.
3/ Carcass weight.
4/ Bulgaria, Czechoslovakia, East Germany, Hungary, Romania, Poland, and Yugoslavia.

Source: Compiled from the U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FL&P-2-84 for 1981-84, and FL&P-1-82 for 1979, and FL&P-3-83 for 1980).

Note: Because of rounding, figures may not add to the totals shown.

Table 87.--Lamb: Production, exports, and imports, by selected countries, 1979-84

Country	1979	1980	1981	1982	1983	1984 1/
	(1,000 metric tons, carcass weight)					
Production:						
U.S.S.R	870	894	846	816	800	850
European Community	672	747	719	722	730	743
New Zealand	514	560	626	625	655	646
Australia	539	548	517	558	453	475
India	373	380	482	480	484	489
United States	132	144	153	166	170	166
All other	1,298	1,037	1,169	1,195	1,236	1,230
Total	4,398	4,310	4,512	4,562	4,528	4,599
Exports: 2/						
New Zealand	436	450	485	480	557	545
Australia	214	247	261	239	177	155
All other	238	148	158	194	195	213
Total	888	845	904	913	929	913
Imports: 3/						
European Community 2/	252	230	188	271	222	175
Japan	237	157	176	170	165	140
U.S.S.R	94	157	160	125	150	150
All other	61	45	24	12	14	16
Total	644	589	548	578	551	481

1/ Forecast.
2/ Excludes intra-EC trade.
3/ Carcass weight.

Source: Compiled from U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FL&P-2-84 for 1981-84, and FL&P-1-82 for 1979, and FL&P-3-83 for 1980).

Note: Because of rounding, figures may not add to the totals shown.

Table 88.--Poultry meat: Production, exports, and imports, by specified countries, 1979-84

(In thousands of metric tons)

Country	1979	1980	1981	1982	1983	1984 1/
Production:						
United States	6,507	6,628	6,984	7,037	7,192	7,415
European Community 2/	3,830	4,005	4,145	4,368	4,309	4,300
U.S.S.R	2,017	2,103	2,255	2,425	2,600	2,700
Brazil	1,096	1,326	1,491	1,596	1,580	1,490
Japan	1,109	1,154	1,134	1,209	1,270	1,326
Spain	748	771	885	853	813	825
Canada	539	530	527	527	527	551
Mexico	404	496	533	561	538	546
All other	3,615	3,656	4,375	4,284	4,516	4,695
Total	19,865	20,669	22,329	22,860	23,345	23,848
Exports: 3/						
European Community 2/	267	345	479	455	473	399
Brazil	81	170	295	302	289	251
United States	228	316	375	261	225	201
Hungary	128	135	157	179	186	158
All other	114	139	179	170	147	170
Total	818	1,105	1,485	1,367	1,320	1,179
Imports: 3/						
U.S.S.R	140	159	253	260	206	225
Hong Kong	79	88	88	92	88	96
Japan	72	72	98	106	105	105
European Community 2/	71	77	79	68	68	85
Egypt	0	65	115	40	80	94
Poland	0	4	9	18	22	10
All other	245	132	576	580	537	458
Total	607	597	1,218	1,164	1,106	1,073

1/ Forecast.
2/ Excludes intra-EC trade.
3/ Ready-to-cook basis.

Source: Compiled from the U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FL&P-2-84 for 1981-84, and FL&P-1-82 for 1979, and FL&P-3-83 for 1980).

Note: Because of rounding, figures may not add to the totals shown.

Table 89.--Eggs 1/: Production, exports, and imports, by specific countries, 1979-84

(In thousands of dozens)

Country	1979	1980	1981	1982	1983	1984 2/
Production:						
U.S.S.R	65,585	67,900	10,055	72,409	74,700	77,000
European Community	66,749	69,350	71,064	72,222	70,659	70,853
United States	69,228	69,685	69,896	69,594	67,871	68,392
Japan	33,150	33,360	33,318	34,316	34,755	35,280
Eastern Europe	36,723	37,269	33,247	32,617	33,088	33,450
Spain	11,035	11,734	11,764	12,386	12,250	11,750
Mexico	10,390	11,718	11,000	10,000	9,800	9,900
Brazil	7,200	9,600	10,200	10,200	9,000	8,500
Canada	5,551	5,856	5,855	5,923	6,058	5,900
All other	31,397	22,937	24,796	26,516	26,418	26,791
Total	337,008	336,409	341,995	345,183	344,599	347,816
Exports:						
European Community 3/	1,187	1,257	2,043	2,428	2,947	2,645
Certain NME's 4/	1,890	1,656	2,313	2,135	2,324	2,570
United States	972	1,653	2,810	1,899	1,030	862
Finland	367	439	468	512	547	605
Spain	548	671	367	524	359	290
All other	1,038	588	575	420	689	609
Total	6,002	6,264	8,576	7,918	7,896	7,581
Imports:						
Hong Kong	1,381	1,387	1,360	1,396	1,376	1,410
Japan	2,334	1,379	1,645	1,431	1,202	1,410
European Community 3/	453	525	473	463	213	291
Switzerland	691	729	775	769	761	765
U.S.S.R.	767	737	556	526	531	535
Yugoslavia	425	487	602	500	300	300
All other	885	824	1,094	953	846	988
Total	6,936	6,068	6,505	6,038	5,229	5,699

1/ Forecast.
2/ Includes shell egg equivalent of egg products.
3/ Excludes intra-EC trade.
4/ Bulgaria, Czechoslovakia, East Germany, Romania, Poland, and Yugoslavia.

Source: Compiled from U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, (FL&P-2-84 for 1981-1984, FL&P-3-83 for 1980, and FL&P-1-82 for 1979).

Note: Because of rounding, figures may not add to the totals shown.

Table 90.--Beef and veal: Volume of exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousands of metric tons)

Year and supplier	Japan	Canada	Saudi Arabia	Bahamas	Venezula	Bermuda	Taiwan	EC-10	Hong Kong	Republic of Korea	Subtotal	Rest of world	World
1979:													
United States	34,038	3,664	2,046	2,465	30	897	2,263	1,047	587	440	47,477	6,348	53,825
EC-10	-	0	528	-	-	-	-	-	-	-	528	193,991	194,519
Argentina	-	-	5,116	-	-	-	-	104,757	720	-	110,593	212,462	323,055
Brazil	0	-	0	-	-	-	0	1,251	5	-	1,256	1,368	2,624
New Zealand	4,423	25,118	1,888	-	-	517	297	5,888	2,028	17	40,176	192,899	233,075
Australia	105,211	24,686	10,057	-	3,538	-	9,725	17,783	9,640	42,078	222,718	516,360	739,078
Canada	2,756	-	13	11	0	49	0	60	9	-	2,898	35,066	37,964
Total	146,428	53,468	20,648	2,476	3,568	1,463	12,285	130,786	12,989	42,535	425,646	1,158,494	1,584,140
1980:													
United States	33,474	4,606	1,770	3,056	404	1,073	1,283	1,033	787	351	47,837	7,168	55,005
EC-10	-	0	1,246	-	-	-	-	-	-	-	1,246	478,298	479,544
Argentina	-	-	2,092	-	-	-	-	61,734	2,349	-	66,175	135,694	201,869
Brazil	0	-	0	-	-	-	0	1,613	53	-	1,666	4,060	5,726
New Zealand	4,969	25,824	913	-	-	801	426	6,841	2,478	29	42,281	175,305	217,586
Australia	92,707	24,229	10,058	-	2,000	-	8,494	12,996	5,044	88	155,616	406,395	562,011
Canada	3,342	-	0	47	0	33	0	90	0	-	3,512	42,094	45,606
Total	134,492	54,659	16,079	3,103	2,404	1,907	10,203	84,307	10,711	468	318,333	1,249,014	1,567,347
1981:													
United States	42,878	6,580	3,146	2,535	304	926	568	1,898	1,054	500	60,389	8,218	68,607
EC-10	-	1,758	3,984	-	-	-	-	-	-	-	5,742	502,486	508,228
Argentina	-	-	1,721	-	-	-	-	59,324	857	-	61,902	157,789	219,691
Brazil	0	-	1,583	-	-	-	0	22,076	275	-	23,934	22,465	46,399
New Zealand	6,728	23,145	1,658	-	-	705	847	6,666	2,761	81	42,591	213,018	255,609
Australia	99,038	18,020	11,521	-	0	-	17,210	9,932	4,334	28,074	188,129	287,827	475,956
Canada	4,105	-	18	53	0	35	0	196	4	-	4,411	52,703	57,114
Total	152,749	104,132	23,631	2,588	304	1,666	18,625	100,092	9,285	228,655	387,098	1,244,506	1,631,604
1982:													
United States	52,363	4,394	3,215	1,915	2,177	1,052	2,009	1,567	921	701	70,314	8,462	78,776
EC-10	-	3,350	4,257	-	-	-	-	-	-	-	7,607	336,664	344,271
Argentina	-	-	1,033	-	-	-	-	44,899	228	-	46,160	198,940	245,100
Brazil	0	-	990	-	-	-	0	39,751	1,590	-	42,331	52,111	94,442
New Zealand	4,973	25,240	1,971	-	-	754	640	4,757	2,766	89	41,190	198,184	239,374
Australia	109,218	21,405	13,779	-	1,563	-	18,424	13,865	6,590	64,448	249,292	406,786	656,078
Canada	2,729	-	54	35	36	26	18	1,453	23	-	4,374	56,634	61,008
Total	169,283	54,389	25,299	1,950	38875	1,832	21,091	106,292	12,118	65,238	461,268	1,257,781	1,719,049
1983:													
United States	59,644	5,677	2,328	2,559	3,004	1,010	1,452	1,448	821	1,064	79,007	7,953	86,960
EC-10	-	7,496	14,378	-	-	-	-	-	-	-	21,874	412,820	434,694
Argentina	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	20	-	5,773	-	-	-	105	50,490	6,865	-	63,253	57,043	120,296
New Zealand	8,139	24,081	1,604	-	-	818	2,486	2,339	2,772	3,795	46,034	185,383	231,417
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	2,387	-	0	80	0	26	0	1,252	49	-	3,794	57,583	61,377
Total	70,190	37,254	24,083	2,639	3,004	1,854	4,043	55,529	10,507	4,859	213,962	720,782	703,327

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to totals shown.

Table 91.--Beef and veal: Value of exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousands of dollars)

Year and supplier	Japan	Canada	Saudi Arabia	Bahamas	Venezula	Bermuda	Taiwan	EC-10	Hong Kong	Republic of Korea	Subtotal	Rest of world	World
1979:													
United States	141,071	12,550	11,467	10,499	48	4,729	5,214	5,102	3,411	2,266	196,357	30,870	227,227
EC-10	0	1	2,590	0	0	0	0	-	0	0	2,591	288,393	290,984
Argentina	0	0	13,804	0	0	0	0	282,950	1,471	-	298,225	380,516	678,741
Brazil	0	0	-	-	-	-	0	4,633	12	-	4,645	3,350	7,995
New Zealand	13,388	57,561	6,004	-	-	1,495	1,091	15,241	7,604	58	102,442	453,020	555,462
Australia	271,294	63,346	27,522	-	6,589	-	16,087	50,018	21,692	59,927	516,475	1,203,798	1,720,273
Canada	8,061	-	99	26	0	206	0	107	27	-	8,526	82,700	91,226
Total	433,814	133,458	61,486	10,525	6,637	6,430	22,392	358,051	34,217	62,251	1,129,261	2,442,647	3,571,908
1980:													
United States	137,362	18,503	9,700	12,409	1,175	5,816	3,996	5,827	4,485	2,182	201,455	33,359	234,814
EC-10	0	0	4,695	-	-	-	-	-	-	-	4,695	789,101	793,796
Argentina	-	-	6,833	-	-	-	-	206,647	6,548	-	220,028	299,712	519,740
Brazil	0	-	0	-	-	-	0	5,597	149	-	5,746	12,654	18,400
New Zealand	17,333	61,999	3,059	-	-	2,539	1,829	18,805	11,614	117	117,295	412,291	529,586
Australia	271,279	58,711	35,157	-	3,883	-	20,721	40,885	14,628	283	445,547	971,683	1,417,230
Canada	9,722	-	0	73	0	212	0	199	0	-	10,206	95,470	105,676
Total	435,696	139,213	59,444	12,482	5,058	8,567	26,546	277,960	37,424	2,582	1,004,972	2,614,270	3,619,242
1981:													
United States	157,856	27,254	18,304	10,068	836	5,608	3,142	9,805	5,914	2,980	241,767	37,986	279,753
EC-10	0	3,769	10,686	-	-	-	-	-	-	-	14,455	812,376	826,831
Argentina	-	-	5,047	-	-	-	-	173,338	2,375	-	180,760	341,452	522,212
Brazil	0	-	4,575	-	-	-	0	56,897	780	-	62,252	61,316	123,568
New Zealand	19,570	50,084	5,602	-	-	2,001	3,205	17,282	11,859	303	181,906	308,359	490,265
Australia	262,938	38,236	38,923	-	0	-	39,760	31,448	11,600	50,022	472,927	617,714	1,090,641
Canada	11,721	-	85	102	0	177	0	594	12	-	12,691	107,689	120,380
Total	452,035	119,343	83,137	10,170	836	7,786	46,107	289,364	32,540	53,305	1,166,758	2,286,892	3,453,650
1982:													
United States	232,396	18,082	17,050	7,521	4,795	6,396	6,185	8,027	5,674	4,299	310,425	41,390	351,815
EC-10	0	6,410	11,838	-	-	-	-	-	-	-	18,248	572,904	591,152
Argentina	-	-	2,202	-	-	-	-	117,556	592	-	120,350	335,472	455,822
Brazil	0	-	2,144	-	-	-	0	80,624	3,358	-	86,126	102,162	188,288
New Zealand	14,705	50,050	6,759	-	-	2,121	2,457	11,031	11,263	255	98,641	392,212	490,853
Australia	253,676	41,075	35,064	-	2,904	-	37,958	34,804	15,014	99,415	519,910	728,185	1,248,095
Canada	10,307	-	214	61	86	138	26	2,958	30	-	13,820	115,171	128,991
Total	511,084	115,617	75,271	7,582	7,785	8,655	46,626	255,000	35,931	103,969	1,167,520	2,287,496	3,455,016
1983:													
United States	253,475	22,210	12,501	9,197	8,040	5,619	5,302	5,285	5,129	4,984	331,742	38,927	370,669
EC-10	0	17,453	27,455	-	-	-	-	-	-	-	44,908	582,898	627,806
Argentina	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	41	-	11,920	-	-	-	191	96,859	13,053	-	122,064	88,255	210,319
New Zealand	22,999	53,535	5,388	-	-	2,039	6,933	5,030	9,779	10,856	116,559	388,080	504,639
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	6,123	-	-	107	-	136	-	2,194	48	-	8,608	114,351	122,959
Total	282,638	93,198	57,264	9,304	8,040	7,794	12,426	109,368	22,880	15,840	623,881	1,212,511	1,836,392

Source: Compiled from official statistics of the United Nations.

Note.--Because of rounding, figures may not add to totals shown.

Table 92.--Pork: Volume of exports, by selected suppliers, by major U.S. markets, 1979-83

(In metric tons)

Year and supplier	Japan	Canada	Mexico	EC-10	Bahamas	Dominican Republic	Chile	St. Kitts-Nev.	Saudi Arabia	Pacific Islands	Subtotal	Rest of world	World
1979:													
U.S.	31,648	22,269	10,537	3,023	1,705	1,005	106	168	8	77	79,546	12,508	83,054
EC-10	41,994	-	-	-	478	-	-	-	-	-	42,472	52,763	95,235
Canada	31,802	-	0	755	5	120	-	21	-	-	32,703	42,944	75,647
Total	105,444	22,269	10,537	3,778	2,188	1,125	106	189	8	77	145,721	108,215	253,936
1980:													
U.S.	27,563	13,112	8,785	3,096	1,612	4,054	168	187	2	122	58,701	11,263	69,964
EC-10	31,226	-	-	-	548	-	-	-	-	-	31,774	46,453	78,227
Canada	31,831	-	108	3,211	7	244	-	21	-	-	35,422	78,751	114,173
Total	90,620	13,112	8,893	6,307	2,167	4,298	168	208	2	122	125,897	136,467	262,364
1981:													
U.S.	39,807	12,345	12,821	2,801	1,684	6,551	362	456	74	121	77,022	9,626	86,648
EC-10	73,966	-	-	-	342	-	-	-	-	-	74,308	96,689	170,997
Canada	42,465	-	199	412	29	603	-	52	-	-	43,760	50,265	124,025
Total	156,238	12,345	13,020	3,213	2,055	7,154	362	508	74	121	195,090	156,580	381,670
1982:													
U.S.	30,238	7,609	9,167	693	1,066	3,347	410	494	102	177	53,303	5,236	58,539
EC-10	19,234	-	-	-	518	-	-	-	-	-	19,752	31,521	51,273
Canada	43,778	-	54	139	19	1,329	-	36	-	-	45,355	112,703	158,058
Total	93,250	7,609	9,221	832	1,603	4,676	410	530	102	177	118,410	149,460	267,870
1983:													
U.S.	34,197	8,271	9,786	2,785	1,016	1,501	824	312	133	316	59,141	2,999	62,140
EC-10	39,316	-	-	-	828	-	-	-	-	-	40,144	60,954	101,098
Canada	41,716	-	19	129	1	832	-	8	-	-	42,705	109,874	152,579
Total	115,229	8,271	9,805	2,914	1,845	2,333	824	320	133	316	141,990	173,827	315,817

Source: Compiled from official statistics of the United Nations.

Table 93.--Pork: Value of exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousands of dollars)

Year and supplier	Japan	Canada	Mexico	EC-10	Bahamas	Dominican Republic	Chile	St. Kitts-Nev.	Saudi Arabia	Pacific Islands	Subtotal	Rest of world	World
1979:													
United States	116,385	38,644	7,506	5,453	3,555	1,444	107	373	17	147	173,631	27,047	200,678
EC-10	164,538	-	-	-	463	-	-	-	-	-	165,001	107,398	272,399
Canada	115,208	-	0	1,344	9	174	-	66	-	-	116,801	73,543	190,344
1980:													
United States	95,253	23,089	6,555	5,292	3,162	6,420	287	384	5	233	140,680	21,527	162,207
EC-10	117,620	-	-	-	815	-	-	-	-	-	118,435	104,574	223,009
Canada	107,018	-	97	5,257	17	328	-	43	-	-	112,760	123,620	236,380
1981:													
United States	143,166	28,214	9,410	4,572	3,529	8,830	342	898	327	254	199,542	21,774	221,316
EC-10	259,314	-	-	-	470	-	-	-	-	-	259,784	161,800	421,584
Canada	149,978	-	241	763	54	997	-	88	-	-	152,121	139,939	292,060
1982:													
United States	111,399	20,977	6,460	1,298	2,457	4,773	410	938	339	481	149,532	12,366	161,898
EC-10	60,804	-	-	-	606	-	-	-	-	-	61,410	59,251	120,661
Canada	163,069	-	33	264	20	1,880	-	69	-	-	165,335	226,504	391,839
1983:													
United States	117,975	21,078	5,974	3,393	2,412	1,596	990	792	657	656	155,523	5,856	161,379
EC-10	138,014	-	-	-	870	-	-	-	-	-	138,884	86,266	225,150
Canada	148,669	-	7	222	4	1,225	-	22	-	-	150,149	195,516	345,665

Source: Compiled from official statistics of the United Nations.

Table 94.--Poultry: Volume of exports, by selected suppliers, by major U.S. markets, 1979-83

(In metric tons)

Major competitors	Japan	Singapore	Hong Kong	Canada	St. Kitts Nev.	EC-10	Egypt	Netherlands Antilles	Saudi Arabia	Jamaica	Subtotal	Rest of world	World
1979:													
United States-----------	37,583	13,281	19,610	12,825	10,308	15,444	14,496	5,794	3,774	16,598	149,713	79,610	229,323
EC-10-------------------	-	4,097	2,489	-	-	-	1,489	-	59,715	-	67,790	197,074	264,864
Brazil------------------	88	-	0	-	-	45	3,170	-	18,047	-	21,350	60,321	81,671
Total------------------	37,671	17,378	22,099	12,825	10,308	15,489	19,155	5,794	81,536	16,598	238,853	337,005	575,858
1980:													
United States-----------	43,145	17,093	24,520	12,217	9,937	17,352	47,068	5,098	17,067	17,176	210,673	120,755	331,428
EC-10-------------------	-	3,961	3,570	-	-	-	12,188	-	91,307	-	111,026	229,187	340,213
Brazil------------------	0	-	0	-	-	0	6,350	-	42,023	-	48,373	122,023	170,396
Total------------------	43,145	21,054	28,090	12,217	9,937	17,352	65,606	5,098	150,397	17,176	370,072	471,965	842,037
1981:													
United States-----------	64,817	24,794	22,758	11,953	12,648	15,626	63,426	5,659	4,903	22,262	248,846	133,735	382,581
EC-10-------------------	-	4,578	3,079	-	-	-	5,666	-	95,421	-	108,744	349,189	457,933
Brazil------------------	343	-	0	-	-	0	45,016	-	55,808	-	101,167	193,645	294,812
Total------------------	65,160	29,372	25,837	11,953	12,648	15,626	114,108	5,656	156,132	22,262	458,757	676,569	1,135,326
1982:													
United States-----------	54,715	30,130	27,657	12,690	13,669	12,513	2,268	7,216	5,179	26,608	192,645	73,675	266,320
EC-10-------------------	-	7,267	4,323	-	-	-	3,540	-	116,835	-	131,965	304,563	436,528
Brazil------------------	17	-	8	-	-	1,157	34,165	-	75,404	-	110,751	185,769	296,520
Total------------------	54,732	37,397	31,988	12,690	13,669	13,670	39,973	7,216	197,418	26,608	435,361	564,007	999,368
1983:													
United States-----------	66,176	23,103	25,169	14,657	14,442	9,383	8,047	6,568	3,967	19,315	190,827	40,124	230,951
EC-10-------------------	-	10,133	5,167	-	-	-	17,967	-	129,255	-	162,522	278,557	441,079
Brazil------------------	1,967	-	8	-	-	2,573	34,978	-	92,792	-	132,318	158,079	290,397
Total------------------	68,143	33,236	30,344	14,657	14,442	11,956	60,992	6,568	226,014	19,315	485,667	476,760	962,427

Source: Compiled from official statistics of the United Nations.

Table 95.--Poultry: Value of exports, by selected suppliers, by major U.S. markets, 1979-83

(In thousands of dollars)

Major competitors	Japan	Singapore	Hong Kong	Canada	St. Kitts Nev.	EC-10	Egypt	Netherlands Antilles	Saudi Arabia	Jamaica	Subtotal	Rest of world	World
1979:													
United States	49,345	14,919	19,608	14,925	8,587	27,133	15,525	7,124	5,988	6,407	169,561	91,895	261,456
EC-10	-	4,251	2,388	-	-	-	1,753	-	66,107	-	74,499	240,971	315,470
Brazil	94	-	0	-	-	56	3,170	-	53,537	-	56,857	25,197	82,054
Total	49,437	19,170	21,996	14,925	8,587	27,189	20,448	7,124	125,632	6,407	300,917	358,063	658,980
1980:													
United States	53,455	20,216	26,130	15,379	8,559	29,994	47,038	6,555	21,164	5,967	234,457	152,076	386,533
EC-10	-	3,990	3,032	-	-	-	16,431	-	123,348	-	146,801	321,457	468,258
Brazil	0	-	0	-	-	0	7,836	-	68,501	-	76,337	132,977	209,314
Total	53,455	24,206	29,162	15,379	8,559	29,994	71,305	6,555	213,013	5,967	457,595	606,510	1,064,105
1981:													
United States	81,461	29,304	24,382	17,449	11,071	28,621	74,056	7,255	8,929	7,367	289,895	176,352	466,247
EC-10	-	4,129	2,427	-	-	-	7,261	-	124,366	-	138,183	455,364	593,547
Brazil	404	-	0	-	-	0	50,925	-	72,619	-	123,948	231,779	355,727
Total	81,865	33,433	26,809	17,449	11,071	28,621	132,242	7,255	205,914	7,367	552,026	863,495	1,415,521
1982:													
United States	67,639	34,421	27,934	17,385	10,806	17,201	2,023	8,764	9,530	8,729	204,432	84,465	288,897
EC-10	-	6,437	3,409	-	-	-	3,887	-	115,363	-	129,096	328,871	457,967
Brazil	15	-	7	-	-	2,450	26,725	-	72,619	-	101,816	180,487	282,303
Total	67,654	40,858	31,350	17,385	10,806	19,651	32,635	8,764	197,512	8,729	435,344	593,823	1,029,167
1983:													
United States	91,452	26,063	23,942	20,761	11,283	9,923	8,181	7,754	6,369	5,624	211,352	46,218	257,570
EC-10	-	8,877	3,846	-	-	-	13,921	-	114,671	-	141,315	252,496	393,811
Brazil	2,366	-	6	-	-	4,392	34,643	-	79,208	-	120,615	123,384	243,999
Total	93,818	34,940	27,794	20,761	11,283	14,315	56,745	7,754	200,248	5,624	473,282	422,098	895,380

Source: Compiled from official statistics of the United Nations.

Over one-half of the world exports of lamb, mutton, and goat meat were supplied by New Zealand during 1979-84 (table 87), with Australia supplying about one-fifth. During the investigation, information was submitted indicating that although the international sheep meat trade does not face the same instability problems as the beef and veal trade, the continued sale of surplus beef production at subsidized prices by the EC poses potential disruption to established sheep meat markets such as those of the Middle East and the Soviet Union. 1/

During 1979-84, the EC was the world's largest exporter of poultry meat (tables 94 and 95). Although the United States was the second largest exporter during 1979-81, Brazil, a country whose poultry meat exports have increased rapidly in recent years, replaced the United States as the second largest exporter of poultry meat in 1982. During the investigation, information was submitted stating that the U.S. share of the world poultry market has been rapidly and substantially eroded over the years by aggressive subsidization of both production and sales (exports) by the EC and, more recently, by Brazil. 2/

The EC was the largest world exporter of eggs from 1982 through 1984 (table 89). From 1979 through 1981, however, the United States and/or certain of the NME's had been larger exporters of eggs than the EC. Information was submitted indicating that the United States, which is the low-cost, efficient producer of poultry meat and eggs, operating without export subsidies, is experiencing declining exports, as U.S. markets for these products have been steadily eroded by heavily subsidized competition from the EC and Brazil. 3/

World imports of meat increased irregularly from 4,580,000 metric tons in 1979 to 4,691,000 metric tons in 1982, or by about 2 percent, but then dropped to 4,388,000 metric tons by 1982 as the Soviet Union imported significantly reduced quantities owing to the rise in home production. Largely reflecting efficient feed conversion, imports of poultry meat have increased as a share of the total imports (by about 6 percentage points), but imports of beef and veal have declined by about 5 percentage points; imports of pork and sheep meat have shown little change.

World imports of beef and veal; pork; lamb, mutton, and goat meat; poultry meat; and eggs for 1979-84, by specified countries, are shown in tables 85 through 89. As shown in the tables, the United States with its large consumer demand, is, by far, the largest importer of beef and veal and pork, the two types of meat that account for nearly 70 percent of the world imports of meat. The EC, Japan, and the Soviet Union have accounted for most of the imports of lamb, mutton, and goat meat. The demand for these meats in

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1/ Ibid., p. 3.
2/ Statement of the Poultry & Egg Export Council, Southeastern Poultry & Egg Association, 1456 Church Street, Decatur, GA 30030, p. 22.
3/ Ibid.

the United States is not as large as the demand for other meats such as beef and poultry. The United States is not an important importer of poultry and eggs, however, largely reflecting the fact that it is highly competitive in poultry and egg production owing mostly to its abundant supply of low-cost corn and other feed grains.

United States

Overall pattern.--U.S. exports of meat historically have been small (about 2 percent of production in recent years) for a number of reasons including (a) the effects of national agricultural policies of certain major U.S. trading partners, such as the EC and Brazil, which provide restitution payments and/or subsidies for agricultural exports, (b) the limited world demand for grain-fed beef, the predominant type produced in the United States, (c) the inability of U.S. producers to compete in price with the grass-fed beef produced in efficient beef-producing countries such as Australia, Argentina, and New Zealand, and (d) quantitative limitations and/or health and sanitary regulations imposed by a number of importing countries. The United States is, however, the world's largest exporter of packing house byproducts of cattle (such as hides and tallow) and a substantial exporter of edible beef and veal offal. In addition, the United States has been among the world's largest exporters (and perhaps the most efficient producer) of poultry meat and eggs for a number of years.

Although U.S. imports of meat are larger than exports, imports have been equivalent to only about 5 percent of consumption in recent years. Imports of fresh, chilled, or frozen beef and veal are involved with quotas that relate allowable imports to domestic production. In addition, the quarantine and sanitary regulations administered by the U.S. Department of Agriculture prohibit U.S. imports of cattle, sheep and lamb, and swine, as well as fresh meats thereof, from countries not declared to be free of rinderpest and foot-and-mouth diseases. Because many of the important meat-producing countries of South America and Europe have not been designated as free of such diseases, meat imports from those countries are limited to cooked, canned, or cured meats. In addition, U.S. imports of poultry, poultry meat, eggs, and egg products (all of which are small) are subject to health and sanitary restrictions of the U.S. Department of Agriculture and/or the U.S. Food and Drug Administration.

Major shifts.--U.S. exports of meat increased from 566,000 metric tons in 1979, valued at $973 million, to 606,000 metric tons in 1983, valued at $1.1 billion; exports continued to increase by about 12 percent in volume in January-September 1984, compared with those in the corresponding period of 1978 (table 96). During 1979-83, about 45 percent of the exports were poultry meat; 40 percent, meat offals (mostly beef); and the remaining 15 percent, beef and veal and pork. Japan is the United States' largest meat export market, having increased its share of the U.S. total from nearly 30 percent in 1979 to about 46 percent in January-September 1984. Most of the increase in exports consisted of poultry meat and high-quality beef for the restaurant and hotel trade. The EC, generally the United States' second largest meat export market, decreased its share of total U.S. meat exports from 29 percent of the

Table 96.--Meats: U.S. exports, by major markets, 1979-83, and January-September 1983, and January-September 1984

Market	1979	1980	1981	1982	1983	January-September-- 1983	January-September-- 1984
	Quantity (metric tons)						
Japan	103,239	113,443	153,019	150,130	174,516	128,462	149,707
Canada	40,573	34,444	49,744	49,291	48,810	38,168	52,219
France	58,606	66,496	61,350	60,453	58,671	43,022	41,824
Hong Kong	21,701	26,262	25,513	30,764	27,522	19,759	30,344
Singapore	14,131	18,362	26,248	31,797	24,624	17,753	20,825
Egypt	18,097	54,242	74,409	11.854	29,580	22,120	24,696
Saudi Arabia	7,990	19,814	11,006	11,620	10,001	7,285	6,619
United Kingdom	36,305	34,379	38,121	34,588	30,005	22,021	16,511
Belgium and Luxembourg	29,905	29,314	20,332	18,073	16,263	12,359	14,051
Mexico	34,858	49,445	46,962	42,122	28,546	20,111	39,938
All other	200,256	258,398	264,784	222,249	157,805	116,671	107,087
Total	565,660	704,599	771,489	662,941	606,393	447,732	503,821
	Value (1,000 dollars)						
Japan	287,652	297,680	372,774	427,590	475,314	352,518	431,213
Canada	67,295	65,046	87,506	79,152	83,971	65,201	104,897
France	105,221	131,298	117,546	97,646	77,339	57,349	57,230
Hong Kong	25,592	32,463	33,251	37,479	32,248	22,692	36,915
Singapore	18,018	24,510	34,356	41,083	32,039	23,145	27,493
Egypt	18,685	54,850	86,651	10,975	31,724	23,568	25,071
Saudi Arabia	23,088	36,030	38,953	37,856	30,653	22,196	20,915
United Kingdom	47,878	46,039	47,331	39,808	26,305	19,717	14,777
Belgium and Luxembourg	53,490	55,281	37,674	29,787	23,385	17,781	21,363
Mexico	30,770	45,824	55,227	40,649	20,501	14,205	34,754
All other	295,396	379,698	395,074	308,507	228,306	166,928	162,372
Total	973,086	1,168,720	1,306,343	1,150,531	1,061,785	785,300	937,000

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

total in 1979 to 12 percent in January-September 1984 as it increased its self-sufficiency. Most of the decline in exports to the EC was in edible meat offal and poultry meat. Canada, the third largest U.S. export market for meat, generally increased its share of the total from 7 percent in 1979 to 11 percent in January-September 1984; exports to most of the other smaller markets of note such as Mexico, the Netherlands Antilles, the Bahamas, Saudi Arabia, Egypt (except 1982), and Venezuela (except in 1983 and January-September 1984) generally showed little change. Canada was the largest U.S. export market for eggs in 1979 and 1980 (table 97). Since then Canda's importance as an egg export market has diminished and the importance of Hong Kong and Mexico has risen.

U.S. imports of meat, largely reflecting decreased supplies in some of the traditional exporting countries such as Australia and New Zealand, dropped from 988,000 metric tons in 1979 to 832,000 metric tons in 1981, before recovering to 923,000 metric tons in 1983. In January-September 1984, imports amounted to 830,000 metric tons, about 12 percent larger than imports in the corresponding period of 1983 (table 98). The share of the total imports consisting of beef and veal declined from 77 percent in 1979 to 68 percent in 1983, but the share consisting of pork increased from 16 percent in 1979 to 27 percent in 1983. Most of the increased imports of pork were from Canada. Most of the remaining 5 to 7 percent of the U.S. imports of meat consisted of sheep and lamb meat from New Zealand and Australia. Imports of poultry meat have been negligible, largely because other countries cannot compete with the United States in the production of poultry. Imports of eggs more than doubled from 1979 to 1983 (from 10 million dozen to 23 million dozen) (table 99); in January-September 1984, imports were about double the level of those in the corresponding period of 1983. Virtually all of the increased imports were from Canada.

During 1979-83, the share of the U.S. meat imports from Australia declined from 39 to 28 percent of the total; the share from New Zealand averaged about 17 percent annually. The share of the imports from Canada, mostly fresh, chilled, or frozen pork, increased from 6 percent of the total to 16 percent during the period; the share from the EC, mostly canned hams from Denmark and the Netherlands, increased from 7 to 13 percent. The share of the imports from Eastern Europe, mostly canned hams from Poland, Hungary, and Yugoslavia declined from about 10 percent of the total to 8 percent of the total, largely reflecting the demand for the declining production of domestic products in the home market.

Government programs

United States.--By virtue of certain conditions set forth in the Meat Import Act of 1979 (which amended the Meat Import Act of 1964), fresh, chilled, or frozen meat of cattle; meat of goats and sheep (except lamb); and prepared (but not preserved) beef and veal may be subject to quotas by Presidential proclamation. The quotas permit imports to fluctuate countercyclical to production (i.e., when U.S. production is high, imports are to be further limited, and when production is low, additional imports are to be permitted). However, quotas have been imposed only once--late in 1979--but

Table 97.--Eggs: U.S. exports, by major markets, 1979-83, January-September 1983, and January-September 1984

Market	1979	1980	1981	1982	1983	January-September-- 1983	January-September-- 1984
	Quantity (In dozens)						
Canada	13,749,295	9,597,901	8,291,640	8,876,772	6,315,713	5,249,873	4,563,396
Trinidad and Tobago	3,123,804	2,963,310	3,110,900	3,432,950	3,636,462	2,724,896	2,536,970
Hong Kong	6,965,467	6,961,585	10,610,933	11,247,583	6,618,234	5,639,112	5,710,523
Jamaica	3,043,423	2,703,420	2,535,359	2,508,798	2,346,312	1,829,139	1,667,012
Mexico	4,110,222	3,679,634	13,259,684	23,721,103	1,868,114	383,363	155,334
Dominican Republic	1,658,896	1,721,928	533,856	1,163,911	1,299,439	710,300	177,818
Surinam	469,657	523,888	538,345	594,986	651,727	507,252	603,230
Italy	237,785	207,382	315,471	289,636	146,492	95,252	4,642
Barbados	516,326	738,920	445,010	364,859	445,729	289,474	398,548
Federal Republic of Germany	172,116	241,053	728,008	154,540	157,182	136,058	109,402
All other	7,980,159	49,745,402	79,684,557	34,107,047	5,641,968	4,471,363	5,087,865
Total	42,027,150	79,084,423	120,053,763	86,462,185	29,127,390	22,036,092	21,041,740
	Value (1,000 dollars)						
Canada	17,516	12,546	11,379	10,218	7,091	5,763	6,675
Trinidad and Tobago	4,148	4,323	5,190	5,667	6,102	4,539	4,444
Hong Kong	4,110	4,203	6,912	6,942	3,914	3,276	3,676
Jamaica	4,223	3,975	4,062	3,820	3,772	2,954	2,777
Mexico	3,170	3,983	15,448	12,963	2,234	885	898
Dominican Republic	2,625	2,431	847	1,429	1,741	853	322
Surinam	682	821	959	1,008	1,112	840	1,224
Italy	1,689	1,303	2,067	1,742	1,022	741	142
Barbados	662	775	704	581	777	527	721
Federal Republic of Germany	772	890	1,134	1,188	774	680	919
All other	11,438	41,437	61,234	28,406	8,418	6,047	9,114
Total	51,036	76,688	109,937	73,966	36,956	27,106	30,913

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

Table 98.--Meats: U.S. imports, by major sources, 1979-83, January-September 1983, and January-September 1984

Source	1979	1980	1981	1982	1983	January-September--	
						1983	1984
	Quantity (metric tons)						
Australia	405,461	367,749	260,281	327,323	281,527	218,696	211,077
New Zealand	175,874	162,714	167,716	164,707	170,409	165,868	137,831
Canada	86,889	138,219	147,889	186,286	188,312	152,699	197,162
Denmark	40,041	33,867	55,128	57,944	66,996	49,221	104,642
Argentina	51,851	33,558	31,127	30,322	39,192	30,602	31,163
Poland	43,341	42,550	26,055	15,903	27,438	20,389	21,950
Brazil	17,942	24,159	24,018	21,624	34,132	26,697	31,370
Costa Rica	32,258	20,891	28,326	23,765	15,905	9,865	14,979
Honduras	28,255	26,397	21,945	16,069	16,498	11,757	8,788
Netherlands	4,484	4,301	8,303	9,293	11,333	8,106	10,006
All other	101,659	71 086	60 940	61,921	70,882	49,081	60,753
Total	988,054	931,491	831,728	915,157	922,625	742,980	829,719
	Value (1,000 dollars)						
Australia	986,722	889,254	571,615	634,773	575,551	441,012	419,343
New Zealand	427,259	387,802	366,222	334,247	357,391	347,690	280,743
Canada	167,844	237,228	262,688	367,882	332,538	274,430	335,572
Denmark	144,572	133,938	169,137	199,804	216,705	161,778	259,020
Argentina	148,406	124,834	127,970	91,202	111,781	86,425	91,989
Poland	147,026	138,910	90,044	58,227	86,833	66,850	64,855
Brazil	49,844	82,175	78,682	55,083	82,080	64,810	69,162
Costa Rica	85,905	59,923	70,389	53,378	36,980	23,507	34,562
Honduras	63,293	63,648	49,620	35,513	35,610	25,630	19,261
Netherlands	14,465	14,066	25,520	31,596	33,527	24,556	26,778
All other	292,098	212 200	181 760	179,662	180,230	129,199	139,902
Total	2,527,484	2,343,979	1,993,645	2,041,368	2,049,225	1,645,886	1,741,187

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

Table 99.--Eggs: U.S. imports, by major sources, 1979-83, January-September 1983, and January-September 1984

Source	1979	1980	1981	1982	1983	January-September 1983	January-September 1984
	Quantity (in dozens)						
Canada	403,237	5,262,942	4,685,401	2,611,165	15,656,519	13,163,415	10,179,748
Finland	0	0	0	0	2,151,387	704,760	6,078,430
China	142,182	157,315	144,462	270,557	440,503	371,810	716,082
France	19,350	40,500	132,015	22,270	1,714,800	319,620	1,762,167
Spain	0	0	0	0	1,632,563	68,933	0
Taiwan	317,726	323,819	249,037	290,268	240,023	149,477	344,692
Netherlands	10,830	9,630	15,568	9,600	921,510	786,390	1,109,730
Hong Kong	92,519	148,551	137,342	78,674	164,338	147,538	46,963
United Kingdom	1,876,340	533	628	48,934	17,042	11,920	307,136
Uruguay	0	0	0	0	300,000	0	582,000
All other	7,399,615	22,304	79,544	29,222	273,213	13,669	10,597,380
Total	10,261,799	5,965,594	5,443,997	3,360,690	23,475,898	15,737,532	31,724,328
	Value (1,000 dollars)						
Canada	1,360	3,760	3,728	3,178	7,336	6,040	9,750
Finland	-	-	-	-	797	208	3,215
China	250	279	273	415	586	507	900
France	60	152	451	249	550	128	1,047
Spain	-	-	-	-	453	22	-
Taiwan	463	482	525	445	400	295	647
Netherlands	23	21	43	15	332	264	790
Hong Kong	157	276	236	98	300	253	59
United Kingdom	645	2	2	110	183	138	327
Uruguay	-	-	-	-	149	-	298
All other	1,471	46	75	65	116	27	5,068
Total	4,429	5,019	5,333	4,575	11,202	7,881	22,099

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

imports of the meats sometimes have been subject to voluntary restraint agreements negotiated with major exporting countries under section 204 of the Agricultural Act of 1956.

Certain health and sanitary regulations with respect to U.S. imports of certain live animals and meats are administered by the USDA to protect the U.S. livestock industry and to ensure an adequate supply of safe meat for consumers. For example, U.S. imports of cloven-footed live animals, such as cattle, sheep, swine, and deer, and the fresh, chilled, or frozen meats of such animals are limited to countries that have been declared free of rinderpest and foot-and-mouth diseases 1/ by the Secretry of Agriculture. 2/ The general effect of these prohibitions has been to allow imports of cloven-footed animals and fresh meats from such animals only from Australia, New Zealand, North America, and certain areas of Europe.

The USDA also administers section 20 of the Federal Meat Inspection Act (21 U.S.C. 661 and 21 U.S.C. 620), which provides, among other things, that meat and meat products, including poultry, prepared or produced in foreign countries, may not be imported into the United States "unless they comply with all the inspection, building construction standards, and all other provision of this chapter [ch. 12, Meat Inspection] and regulations issued thereunder applicable to such articles in commerce in the United States." Thus, section 20 requires that the foreign meat-exporting country enforce inspection and other requirements with respect to the preparation of the products covered that are at least equal to those applicable to preparation of like products at Federally inspected establishments in the United States, and that the imported products be subject to inspection and other requirements upon arrival in the United States to identify them and further ensure their freedom from adulteration and misbranding at the time of entry. The U.S. Secretary of Agriculture has assigned responsibility for the administration of the Department's section 20 functions to the Foreign Programs Division, Meat and Poultry Inspection Program, Food Safety and Inspection Service (FSIS).

U.S. imports of poultry and poultry products are subject to the same health and sanitary regulations administered by the USDA for the domestic products under the Poultry Products Inspection Act (Public Law 85-172). Imports of eggs and egg products are regulated by the USDA under the Egg Products Inspection Act (Public Law 91-597), and they are subject to certain requirements of the Food and Drug Administration (21 CFR 160). The general effect of the above-mentioned regulations is to limit most imports of poultry and poultry products, including eggs, to those from Canada. In addition to health and sanitary regulations, U.S. imports of eggs and egg products are also subject to the Foreign Asset Control Regulations of the U.S. Department of the Treasury (31 CFR 500.204).

1/ Rinderpest and foot-and-mouth diseases are highly contagious, infectious, diseases that are debilitating. Although these diseases are an ever-present threat to the U.S. livestock industry, they do not pose a direct threat to human health.

2/ Sec. 306 of the Tariff Act of 1930 (19 U.S.C. 1306).

There are no U.S. Government price-support programs for meats, including poultry and eggs, nor are these products included in marketing orders (eggs are eligible for marketing orders). In recent years, some producers of meats may have been affected by the USDA-implemented payment-in-kind program, which was designed to reduce certain crop surpluses. In addition, some may have benefited from certain tax creditors or certain USDA research and development activities, as well as USDA Soil Conservation or Agricultural Stabilization and Conservation Service activities.

The USDA has distributed meats and eggs under a number of feeding programs such as the National School Lunch Program or Aid to Needy Families, and the Department of Defense purchases these products for feeding military personnel. Further, recipients purchase meats, poultry, and eggs under the USDA-administered food stamp program (Public Law 95-113). Although precise data are not available, these Government food distribution programs may have accounted for about 5 percent of the estimated $80 billion annual U.S. consumption of meats, poultry, and eggs.

European Community.--The EC has an elaborate set of common prices for beef, veal, pig meat, and sheep meat 1/ for the purposes of intervention buying, private storage subsidies, import restrictions, and export restitution payments 2/.

The EC sets guide, intervention, and reference prices for beef and veal. The annually set guide price is the price that the EC considers desirable for producers to obtain under normal market conditions. The current guide price is set at 205 ECU's per 100 kilograms live weight. The annually set intervention price, fixed at 90 percent of the guide price, is the price at which the EC purchases beef and veal. The current intervention price is set at 184.5 ECU's per 100 kilograms live weight. The weekly set reference price, a weighted average of cattle prices in the member states, is the EC market price for fat cattle. 3/

1/ A recent EC audit concluded that the sheep meat regime has been poorly managed and has done nothing to ensure overall market stability. Costs have soared from 53 million ECU's in 1980 to 306 million ECU's in 1983.

2/ Export payments are made available to poultry producers as well, although there are no internal market support measures for poultry.

3/ Prices are collected on a national basis for all categories of cattle and then are weighted together to calculate reference prices for individual members in proportion to their relative contribution to total beef production. National prices are combined into the overall EC reference price by weighting coefficients that reflect the relative importance of total cattle populations in the 10 members.

The annually set basic price for pig meat, which is equivalent to the target and guide prices of other CAP regimes, represents a desired level of market prices to be received by producers. The current basic price for pig meat is 205.4 ECU's per 100 kilograms. A basic price is calculated annually for sheep meat taking into account a variety of market and production factors. The basic price for sheep meat is 428 ECU's per 100 kilograms carcass weight. The reference price for sheep meat is the average price of lamb carcasses on selected member state markets. The sheep meat reference price is compared with the EC basic price to determine if EC intervention measures are necessary to support the market. The sheep meat intervention price represents 85 percent of the EC basic price and is subject to seasonal adjustment following the basic price. Producer subsidies are offered on the basis of the difference between the reference price and the market price for the year in question.

For beef and veal, when the reference price is low relative to the guide price, EC intervention buying occurs. When the market price is significantly higher than the guide price, intervention selling occurs to encourage a reduction in market prices. Support buying for pig meat has not occurred in recent years, nor has there been any support buying for sheep meat. When CAP meat products are in surplus supply in the EC market, the EC may offer payments to traders that agree to store specific quantities of meat for a certain time. 1/

Export restitution payments enable EC beef, veal, pig meat, and poultry producers to sell on the world market and to relieve surplus supplies in the EC. Export restitution payments cover the difference between domestic market prices and world prices for cereals. 2/

EC beef production increased about 22 percent from 1973-83, while consumption increased only 2 percent. During this period, the EC moved from an important beef importer to the world's largest beef exporter, with exports increasing over 200 percent, and imports declining 64 percent. 3/

EC poultry exporters have benefited from substantial EC export payments. In response, the United States has pursued action against the EC under the dispute settlement provisions of the GATT subsidies code, alleging that the EC (and Brazil) grants export subsidies, in violation of GATT rules, on poultry

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1/ Costs of EC intervention measures have risen in recent years. For example, EC spending on intervention buying and storage subsidies for bovine meat products rose from 515 million ECU's in 1982 to 908 million ECU's in 1983. EC spending on pig meat storage rose from 15 million ECU's in 1982 to 24 million ECU's in 1983.

2/ There are no export subsidies on sheep meat exports. In 1983, the EC spent 828 million ECU's for bovine meat export subsidies (up from 643 million ECU's in 1982) and 120 million ECU's for pig meat export subsidies (up from 96 million ECU's in 1982).

3/ U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular--Livestock and Poultry Situation, October 1984, p. 4.

sales to third markets. 1/ The EC maintains that it was meeting the subsidized price competition of Brazilian poultry exports in those third markets and was in conformance with GATT agreements.

In the European Community, basic import levies and sluice gate prices prevent imports from pressing EC market prices below the basic price. The basic import levy is fixed at a level that ensures that EC producers are not adversely affected when world cereal costs are significantly below EC costs. The sluice gate price prevents third-country suppliers from supplying meat to the EC market at prices significantly below world production costs. Sluice gate prices take into account world production costs, the cost of feedstuffs, and transport, overhead, and marketing costs.

When the import price of any product falls below the sluice gate price, it may be subject to a supplementary levy. The levy corresponds to the approximate difference between the import price and the sluice gate price for the category of meat concerned. Supplementary levies may be and are often charged in relation to imports from specified exporting countries. Certain countries have concluded agreements with the EC to supply certain pig meat products into EC countries below the sluice gate price. These countries are exempt from paying any supplmentary levy. The EC reviews the relationship between the sluice gate and offer prices to determine if it is necessary to apply supplementary levies.

The system of sluice gate prices and import levies provides an effective minimum import price below which meat from outside the EC cannot normally be marketed within the EC. The minimum import price itself should always be at a higher level than the overall average EC costs of producing pig meat. It thus grants a margin of preference to EC producers.

Imports of sheep meat from countries other than those that have VRA's with the EC may take place only up to an annual maximum amount of 100 tons of fresh or chilled sheep meat, and 100 tons each of frozen sheep meat and 100 tons of live animals annually. A 10 percent ad valorem levy is also placed on these imports. Imports of other fresh, chilled, or frozen sheep meat may not take place even against payment of a full levy.

The EC uses a combination of variable levies and bilateral agreements to limit imports of poultry. The basic levy, which protects producers, is calculated on the basis of the difference between EC and world cereal prices plus a margin of protection. The levy consists of two components. The difference between the costs of feedgrains required to produce one kilogram of poultry on the world market and within the EC is calculated quarterly. To this is added a protective element of 7 percent of the sluice gate price for the previous year. The sluice gate price is the computed costs of production with the feed ingredients prices at world market levels. The protective element is set annually.

1/ In 1981, the United States, under section 301 of the Trade Act of 1974, filed a complaint with the GATT alleging EC violations of GATT article XVI and the GATT subsidies code by using export subsidies on poultry that have displaced U.S. poultry exports to third country markets (particularly the Middle East). The matter is still pending before the subsidies code committee.

Sluice gate prices are set quarterly paralleling the basic import levy calculation. The cost of the feedgrains is calculated at world prices for the previous 6 months; a fixed allowance is added for transport costs. To the base cereal costs is applied a standard feed conversion ratio to get the cereal cost per kilogram of product. A standard amount is then added to cover the cost of the other noncereal feed elements and general production and marketing costs. 1/

The EC has several bilateral agreements regarding meat imports. The EC-Yugoslav Agreement provides for imports of Yugoslav baby beef at a reduced levy. The levy reduction applies to 4,200 tons per month when the market price is less than 98 percent of the guide price. Voluntary restraint agreements have been concluded between the EC and most of the traditional sheep meat-supplying countries. Australia, New Zealand, Argentina, Uruguay, Hungary, Poland, Yugsolavia, and Bulgaria have agreed to limit exports of chilled and frozen sheep meat, and in some cases, live sheep. In return, their exports are subject to a tariff reduction of 10 percent (previously 20 percent).

Canada 2/.--The Federal Government supports hog, turkey, lamb, and sheep prices by providing deficiency payments when producer prices fall below 90 percent of the previous 5-year average (adjusted for changes in cash costs of production). 3/ All producers are covered. No producer contributions are required. 4/

The Canadian Chicken Marketing Agency (CCMA) regulates the quantity of poultry production and controls interprovincial trade. The Canadian Turkey Marketing Agency (CTMS) has the same powers with regard to turkey production.

1/ The Food and Farm Policies of the EC, op. cit., p. 85. The levy is more protective than it appears because of the working assumptions built into the calculations. The basic levies and sluice gate prices are multiplied by coefficients to get corresponding rates for poultry cuts. The basic levy, revised quarterly, has to be paid on all imports. There is provision, however, for an additional import levy to be charged on offers to the EC that are below sluice gate prices. This provision to apply additional levies is regularly used as a normal part of the poultry regime. Unlike basic import levies that may be estimated in advance, as a precise formula is used, additional levies are set by the Commission at whatever level it judges necessary and may be paid only by one country. For countries that agree not to allow their offer prices to fall below the sluice gate, additional levies are not charged.

2/ This section is partly based on data complied by the U.S. Department of Agriculture, Economic Research Service, North America and Oceania Branch.

3/ There is extensive and elaborate Provincial Government support for the livestock industry. For information on Provincial government support programs see Conditions of Competition Between the U.S. and Canadian Live Swine and Pork Industries, USITC Publication 1615, November 1984, pp. 32-34.

4/ In early 1985, the Federal Government proposed legislation to permit the establishment of a national price stabilization program for red meat producers, thus replacing provincial support programs. The Federal Government believes that the different local plans have resulted in a misallocation of resources and have been disadvantageous to the industry as a whole.

Under the authority of Canada's meat import law, 1/ the Agriculture Ministry has imposed a 1985 global import quota on beef and veal of 66,500 metric tons. Individual country quotas have been set for the United States (9,800 metric tons); Australila (24,900); New Zealand (28,800); EC (2,700); and Nicaragua (300). This action follows a year of protests by domestic beef producers about increased imports, especially from the EC. The EC became Canada's largest beef and veal supplier in 1984.

Australia.--The Australian Meat and Livestock Corporation (AMLC) develops, protects, and promotes the country's export trade in meat and livestock and encourages domestic consumption. 2/ The AMLC controls and regulates meat and livestock exports by private traders. It engages in export trading and may adopt the role of sole exporter to a specific market. To date, the AMLC has not engaged in trading.

Exports of meat and livestock are controlled and regulated by the AMLC through export licenses and issuance of standards and other instructions such as shipping arrangements and quotas schemes for countries that set import limits. The Government gives assistance to promote sheep meat exports to areas such as the Middle East.

Australia is one of the world's largest beef exporters and supplies one-half of the U.S. import market. There is no domestic price or income-support program for beef and sheep meat at the Federal level.

New Zealand.--New Zealand has an elaborate array of price- and income-support schemes for production and export of meat products. Two lamb price-support programs operate in tandem: the New Zealand Meat Producers Board's guaranteed minimum price and the Government's supplementary minimum price scheme.

The Meat Board guarantees a minimum price to farmers for beef and sheepmeat for export. When prices are above the minimum price, it skims off 50 percent of the farmers' returns above a set trigger-price level. 3/

1/ Canada's Meat Import Act is designed to restrict imports when production is high and prices are low and increase imports when production is low and prices are high.

2/ The AMLC covers edible offals, livestock, and meat from cattle, buffaloes, sheep, lambs, and goats.

3/ A Meat Export Prices Committee sets a price band for benchmark beef and sheep meat carcass grades. The Board's minimum prices are usually set within 10 percent of a 3-year average price of the product concerned. The trigger prices are set at levels somewhat above the minimum price, taking into account similar factors such as market trends and prospects. When farm prices fall below the minimum price level, the Board may either make deficiency payments to farmers or purchase meat to support the price. When farm prices exceed the season's trigger price, deductions are made from the farmer's receipts at slaughter at 50 percent of the amount in excess of the trigger price.

Minimum prices are paid out of a reserve account of producer levies. The Board purchases mutton at its minimum prices and markets the product on its own behalf. The Board usually owns about 90 percent of each season's mutton production.

The Government provides a supplementary minimum price (SMP) scheme for beef in addition to the Board's minimum price. Under the SMP scheme, the Government sets a minimum price that is higher than the Meat Board's minimum price. If prices are higher than the Meat Board's minimum prices, producers are eligible for additional deficiency payments whose costs are borne by the Government. 1/

The Board has statutory control over all meat exports. 2/ It governs the conditions under which meat may be exported, issues export licenses, grades, handles, and transports meat products and supports research. The Board has export promotion offices in major importing countries. The Meat Export Development Company (DEVCO) has sole responsibility for handling the market for lamb in Canada and the United States.

The Meat Board collects export levies from producers at the time of slaughter by processors. Proceeds are a primary source of funding for the Meat Board's research, export promotion, and advertising activities.

The Board has an agreement with Iran to supply up to 120,000 tons of lamb worth NZ$300 million in a lamb-for-oil deal. New Zealand has an agreement with Poland to sell lamb in exchange for mining equipment. An agreement with the EC guarantees New Zealand access to the EC market for 234,000 tons of sheep and goat meat annually.

A broad array of market support and export promotion facilities affect the production and sale of New Zealand lamb. The sheep industry benefits from a highly developed handling and processing infrastructure, experienced local labor, and an ideal pastoral climate. Since sheep farming makes a significant contribution to the economy, the Government is extensively involved in policies that are shaped to meet the needs of these farmers. In April 1984, the American Lamb Co., and others filed a petition for antidumping duty relief with the U.S. International Trade Commission and the U.S. Department of Commerce. The petitioners alleged that imports into the United States of New Zealand lamb meat were being subsidized by the New Zealand Government and sold at less than fair value. In May 1984, the U.S. International Trade Commission made a negative determination on the case.

1/ During the 1982-83 season, the Board paid farmers at the SMP for lamb of 146(A) cents per kilogram, with the Government funding the difference between this price and the Board's minimum price of 114(A) cents per kilogram. If the Board realizes more than its minimum price from export sales of this meat, then the difference has to be repaid to the Government.

2/ The Meat Board consists of six elected meat producer representatives, two Government appointees, and one dairy industry representative.

Japan.--Pork and bovine meat prices are regulated by the semi-governmental Livestock Industry Promotion Corporation's (LIPC) price stabilization scheme. The LIPC buys and sells beef on the wholesale market to prevent fluctuations of market prices that exceed certain price bands. Floor prices are set to protect the farmers involved, and ceiling prices protect consumers. 1/ The upper and lower price limits are set by the Ministry of Agriculture, Forestry, and Fisheries prior to the beginning of each fiscal year. The LIPC purchases meat or stores it.

When wholesale prices exceed the maximum price, the LIPC increases sales of imported and domestic beef and domestic pork from its stocks, and tariff rates for imported pork are reduced. When wholesale prices fall below the minimum price, the LIPC takes measures to stabilize supply, demand, and prices by withdrawing beef and pork from the market. Japan's price stabilization scheme is designed to ensure industry growth and stable supplies and prices of livestock products.

Japan uses quotas, licensing, and health standards to control meat imports. 2/ The Government semiannually sets the required volume of beef imports. All red meat imports are subject to licensing. Import of meats of bovine animals are narrowly restricted; other meats are less tightly controlled. High-quality beef is imported within Japan's global beef quotas. The LIPC controls 90 percent of imports.

The LIPC's purchase price of imported beef is determined through bidding by trading companies. In releasing imported beef on the domestic market, the LIPC determines its volume by taking account domestic supply and demand. Its price is set in public auctions in wholesale markets or through open tenders by wholesalers or processors in relation to the price of domestic beef of similar quality. As the released beef goes through the domestic distribution channels, normal distribution costs and retailers' profit margins are added to the price, just as they are for domestic beef. 3/

In the United States-Japan Beef and Citrus Agreement of 1979, Japan expanded its annual meat import quotas for 1980-83. Japan agreed to expand high-quality beef imports by 83 percent. In April 1984, Japan and the United States reached another agreement to increase Japanese imports of high-quality beef by 27,600 metric tons above the 1983 base level of 30,800 metric tons. The increase is phased in incrementally each year to 1987. The agreement provides for increasing sales of high-value cuts to satisfy the specific needs of the hotel/restaurant trade. U.S. exporters will be able to market a certain quantity of beef directly to end users under a new transanctions system to be implemented by the LIPC. Certification of meat by U.S. packers or the USDA and abolition of LIPC's system of brand preferencing are also part of the United States-Japan agreement.

1/ Agricultural Policy Research Committee, Perspectives: Japan's Beef Market, Tokyo, 1982.

2/ U.S. Department of Agriculture, Economic Research Service, Phil Paarlberg and Jerry Sharples, "Japanese and European Community Agricultural Trade Policies," Foreign Agricultural Economic Report, August 1984.

3/ Agricultural Policy Research Committee, op. cit., p. 14.

USDA "Prime" and "Choice" grades satisfy the standard for high quality beef, which remains unchanged from the earlier agreement. The United States supplies almost all of Japan's high-quality beef imports.

Profits accrued by the LIPC through its price stabilization system are used to improve productivity and modernize beef distribution and marketing. The Government also provides assistance to reinforce cooperative ventures and introduce better farm management techniques to assist the beef cattle industry in becoming more cost effective. Low-interest and long-term loans are given to develop pastures and improve cattle facilities. 1/

Fruit and Vegetables

World

Overall pattern.--The international trade of fruit, vegetables, and nuts, in both the fresh and processed forms, is especially important in the fresh fruit and vegetable area, with exports from the EC, Spain, and the United States accounting for the bulk of such shipments recently. The perishable nature of fresh fruit and vegetables is such that those items that might be exported must be readily adaptable to shipping and storage. Historically, world shipments of fresh fruit and vegetables were dominated by the United States; the primary markets for U.S.-produced items included Canada, the EC, Japan, and Hong Kong, with significant exports to a number of other countries including Saudi Arabia, Taiwan, Sweden, and Singapore. The United States was also an important market for fresh fruit and vegetables, especially from Canada and Mexico. Processed fruit and vegetable exports, often destined to the same markets, were also important trade items. Currently, U.S. exports of fruit, vegetables, and nuts are facing increasing competition in world markets from numerous geographic areas, especially Europe (Egypt, Israel, Morocco, Spain, and Turkey), South America (Argentina, Costa Rica, Ecuador, and Honduras), Asia (Thailand), and New Zealand.

Over the past 10 years, the overall world situation has changed dramatically away from a pattern of international trade where a small number of developed nations dominated world production and export of goods while the vast majority of countries, especially the smaller, lesser-developed nations, imported most of their products and actively restrained their domestic production and export potential. In the mid-1970's, various countries throughout the world were reported to have established various forms of institutional deterrents, or disincentives, through which their respective governments discouraged agricultural production and export. 2/ The types of disincentives most often employed included price controls, at both the producer and retail level, and export controls, including quantity limitations

1/ Ibid., p. 15.

2/U.S. Department of Agriculture, Foreign Agricultural Service, Saleh and Goolsby, Institutional Disincentives to Agricultural Production in Developing Countries, Foreign Agriculture Supplement, August 1977.

and taxes. Those countries most often using such incentives included Costa Rica, the Dominican Republic, Guatemala, Colombia, and Peru in Central and South America, and India and the Philippines in the Far East. The study concluded that food production throughout a number of countries would be increased substantially if such countries replaced their existing programs of production disincentives with farmer incentives.

With the changes in production and export policy exhibited by many countries in the late 1970's through the early 1980's following an ecomonic stabilization worldwide, many geographic regions, notably Central and South America and Europe, as well as individual countries, are pursing more aggressive programs of bilateral trade, including trade of fruit, vegetables, and nuts. Historically, these commodities were produced and consumed in the same general area, owing to their perishable nature, transportation costs, seasonal restriction or availability, and other factors. In recent years, however, improved technology in a number of related areas has led to a substantial rise in intracontinental as well as intercontinental trade of such commodities. As shown in table 100, the average yearly growth rates of fruit and vegetable exports from a number of regions and countries has risen in most cases, with increases in all fruit and vegetable export categories from the EC and the North Africa/Middle East area.

Major shifts.--Since 1979, estimated world exports of fruit, vegetables, and nuts has trended upward, with two major historical suppliers, Spain and the EC, showing declines in exports and shipments from the United States, the other leading supplier, offsetting those declines with a significant increase. In recent years, a number of other countries, including Thailand, Turkey, Brazil, and the Philippines, have increased their exports to the major U.S. export markets of the EC and Japan, creating stiff competition for U.S. products in those markets. In addition, other countries, including Israel, Morocco, and Argentina, have also targeted the EC as their major export market.

In 1980, Asia replaced Europe as the primary market for U.S.-produced agricultural goods, the first time ever for such a shift; exports of fruit, vegetables, and nuts overall have declined as much as any agricultural commodities. 1/ Although the United States accounted for about 17 percent of total EC agricultural imports in 1982, fruit and vegetables accounted for only about 3 percent of EC agricultural imports. The rate of growth in U.S. sales of fruit and vegetables has reportedly been greater in markets other than the EC, with no apparent shortage of domestic supplies available for shipment.

United States

Overall pattern.--U.S. exports of fruit, vegetables, and nuts, after rising steadily from 1979 to 1981, declined in 1982 and again in 1983 (table 101). Government sources have reported that an appreciation of the dollar against foreign currencies, tighter domestic monetary policy, and a depressed world economy in the early 1980's, have decreased the foreign market

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1/ U.S. Department of Agriculture, Foreign Agricultural Service, European Community: Its trade policies, "Foreign Agriculture," March 1982.

Table 100.-- Average yearly growth rates of fruit and vegetable exports, by selected regions and countries, 1966-78 1/

Commodity and SITC code	EC-9	Other Western Europe[2]	Spain Greece, and Portugal	Eastern Europe and Soviet Union	United States	Australia, New Zealand, South Africa, Mexico, Argentina, and Brazil	North Africa and Middle East[3]
				Percent			
Fresh fruits (051)	3.9	-2.9	4.0	10.3	6.6	1.6	8.2
Dried fruits (052)	11.1	9.8	-.4	2.4	-.5	-2.4	3.1
Processed fruits (053)	9.7	16.3	11.7	.1	5.7	18.1	8.0
Fresh vegetables (054)	5.4	-2.3	5.0	-2.0	5.3	7.0	2.7
Processed vegetables (055)	8.6	5.3	9.9	15.3	8.4	10.3	14.8

[1]Growth rates estimated by fitting logarithmic trend lines on the volume of exports of individual countries and then weighting the individual country growth rates by the 1977 value shares in the total exports of each group.
[2]All West European countries except EC-9, Spain, Greece, and Portugal.
[3]Includes Turkey, Cyprus, Israel, Morocco, Algeria, Tunisia, Egypt, Iran, and Iraq.

Source: Computed from United Nations trade data.

Note.--Taken from World Trade in Fruits and Vegetables: Projections for an Enlarged European Community, Alexander H. Sarris, USDA, ERS, Foreign Agricultural Economic Report 202, August 1984.

Table 101.--Fruits, vegetables, and nuts: U.S. production, exports of domestic merchandise, imports for consumption, and apparent consumption, 1979-83

Year and commodity	Production	Exports	Imports	Apparent consumption	Ratio of imports to consumption
	Million dollars				Percent
1979:					
Vegetables	10,363	618	550	10,295	5
Fruit	7,992	1,131	1,059	7,920	13
Nuts	880	373	248	755	33
Total	19,235	2,122	1,857	18,969	10
1980:					
Vegetables	10,421	985	673	10,108	7
Fruit	8,894	1,338	1,081	8,637	13
Nuts	770	562	230	438	53
Total	20,084	2,886	1,985	19,183	10
1981:					
Vegetables	11,259	1,321	835	10,773	8
Fruit	8,806	1,501	1,356	8,661	16
Nuts	718	461	238	495	48
Total	20,783	3,282	2,429	19,930	12
1982:					
Vegetables	11,366	955	909	11,320	8
Fruit	8,487	1,380	1,657	8,764	19
Nuts	838	371	224	692	32
Total	20,690	2,705	2,791	20,776	13
1983:					
Vegetables	11,350	769	955	11,536	8
Fruit	8,584	1,351	1,691	8,923	19
Nuts	616	337	250	529	47
Total	20,550	2,458	2,896	20,989	14

Source: Production, compiled by the Commission staff on the basis of official statistics of the U.S. Department of Agriculture; exports and imports, compiled from official statistics of the U.S. Department of Commerce.

Note.--Because of rounding, figures may not add to the totals shown.

availability for U.S. farm exports in general. 1/ In 1982, most of the decline in shipments from the previous years resulted from reduced sales to Japan and the EC. In late 1982, the value of the Japanese yen rose by about 10 percent against the dollar, providing the stimulus for anticipated rising exports to this market in 1983. A number of foreign governments have instituted programs or policies that negatively influenced the accessibility of these markets to U.S. products. 2/

During 1980-84, the availability of the EC market for U.S.-produced agricultural goods has fallen, owing to such factors as transportation disadvantages relative to EC suppliers from the Mediterranean region, a form of "least-favored-nation" status for the United States, the manipulation of import prices, and enlargement of the EC membership. 3/ Sales of certain fresh produce to Japan, a more distant market for U.S. goods than the EC, were nearly 50 percent greater than comparable sales to the EC in recent years; such sales to Japan are 350 percent greater if measured on a per capita basis. The EC policies of import restrictions and producer supports have led to a rise in prices with a subsequent drop in consumption of both member-produced and imported products. Ever since the EC established its policy of preferential tariffs for citrus produce in the Mediterranean areas, U.S. exports of fresh oranges have remained small. With the accession of Spain into the EC, the demand for foreign-produced fruit and vegetables will likely decline. Under the CAP, the reference price can be changed to offset negotiated duty reductions, possibly subjecting EC imports of fruit and vegetables from the United States to additional, or countervailing, charges. The enlargement of the EC may have far-reaching effects on a number of items, including fruit and vegetables, and a number of non-EC countries.

The entry of Greece into the EC and the enlargement of the EC over the next few years, with the entry of Portugal and Spain, has led to numerous studies as to the effect such enlargement will have on non-EC countries. 4/

1/ U.S. Department of Agriculture, Economic Research Service, Strong Dollar Dampens Demand for U.S. Farm Exports, by Longmire and Morey, Foreign Agricultural Economic Report No. 193, December 1983.

2/ Horticultural Products, USDA, FAS, Foreign Agriculture Circular FHORT 6-82, December 1982.

3/ European Community; Its Trade Policies, op.cit.

4/ World Trade in Fruits and Vegetables: Projections for an Enlarged European Community, by Alexander H. Sarris, USDA, ERS, Foreign Agricultural Economic Report 202, August 1984; Developments in the Common Agricultural Policy of the European Community, by Timothy Josling and Scott Pearson, USDA, ERS, Foreign Agricultural Economic Report 172, June 1982; The EC Market for U.S. Agricultural Exports: A Share Analysis, by Harold McNitt, USDA, ERS, Foreign Agricultural Economic Report 179, March 1983; Structural and Commodity Policies of Spanish Agriculture, USDA, ERS, Foreign Agricultural Economic Report 174, September 1982; The European Community's Horticultural Trade: Implications of EC Enlargement, USDA, ERS, Foreign Agricultural Economic Report 191, November 1983.

According to the most recent of these studies, the overall enlargement of the EC will not significantly change existing trade patterns for fruit and vegetables. It may, however, result in increased shipments from new member countries and depressed prices of U.S.-produced products. U.S. exports of fruits and vegetables to the EC may face increasing competition for a number of reasons. Some developing countries will be encouraged to produce and export increasing quantities of fruit and vegetables, if they have an abundance of cheap labor necessary for such labor intensive crops. Also, the EC protection structure for protecting member countries will be changed in favor of its new members, each of which depend heavily on agriculture for economic stability. 1/ This study also states that, since the fruit and vegetable producers in the new member countries are not yet as organized as producers in other member countries (i.e., France and Italy), any changes in overall EC policy will be minor in the near future.

According to industry sources, U.S. agricultural capacity in the next 20 to 30 years will increase at a faster rate than domestic demand, resulting in an over supply and subsequent need for greater exports. 2/ Another source reported that "Horticultural exports, in general, are expected to reverse the downward trend of recent years and register a significant increase in both volume and value in fiscal year 1985. The stronger export performance is forecast on the basis of healthy domestic supply and high quality of major export crops, smaller crops in competitor countries, a stabilization of the exchange rate of the U.S. dollar, continued strong economic growth in the Far East, and the export promotion effort on the part of FAS and cooperating organizations." 3/

In 1983, many developing countries, still experiencing diminished import demand, maintained barriers against imports of fruit, vegetables, and nuts in an effort to conserve foreign currency for debt servicing. 4/ Through nearly all of 1984, exports were hampered by the strong U.S. dollar compared with nearly every other currency, a slow rate of economic recovery in Western Europe, and import restrictions in most Latin American markets. Yearly sales were down in all major markets except Japan. A decline in shipments of fresh and processed fruit more than offset the rise in exports of fresh and frozen vegetables. 5/ Figure 4 shows the steady decline in U.S. exports of fruit, vegetables, and nuts to Canada, the EC and other European countries, and Latin America between 1982 and 1984.

1/ World Trade in Fruits and Vegetables . . ., op. cit.

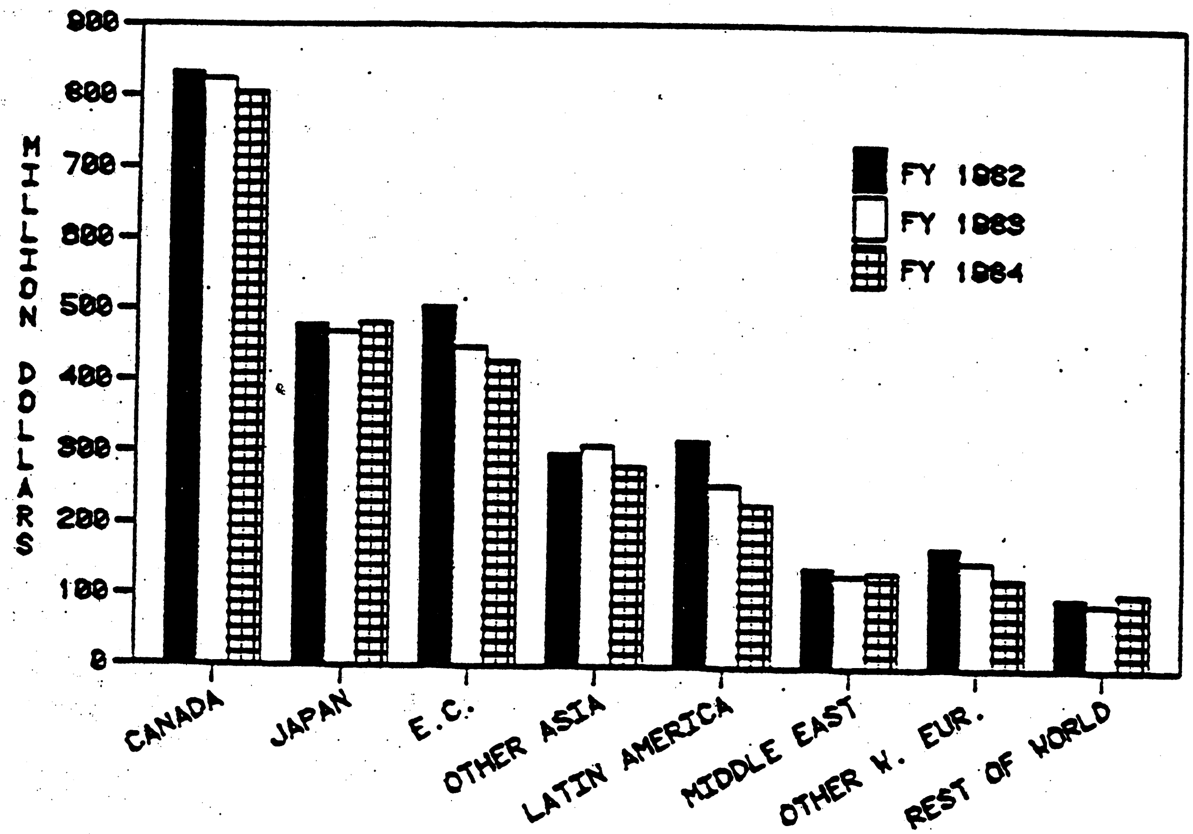
2/ U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture: Charting the Path of U.S. Farm Exports, January 1985.

3/ U.S. Department of Agriculture, Foreign Agricultural Service, Horticultural Products, Foreign Agriculture Circular, FHORT 12-84, December 1984.

4/ U.S. Department of Agriculture, Foreign Agricultural Service, Horticultural Products, Foreign Agriculture Circular FHORT 11-83, November 1983.

5/ U.S. Department of Agriculture, Foreign Agricultural Service, Horticultural Products, Foreign Agriculture Circular FHORT 11-84, November 1984.

Figure 4.--U.S. exports of horticultural products, by selected countries and regions, 1982-84



Source: Horticultural Products, USDA, FAS, Foreign Agriculture Circular, FHORT 11-84, November 1984

U.S. imports of fruit, vegetables, and nuts rose overall from 1979 to 1983, with the greatest annual increases occurring since 1980 and a continued increasing trend forecast for 1984. In 1983, imports were valued at $2.9 billion, 18 percent greater than the export value and equivalent to 14 percent of consumption in that year. The value of the U.S. dollar in relation to foreign currencies, together with declining domestic production due to adverse weather, have increased the desirability of exporting to the United States in recent years, especially for certain fresh fruit and vegetables.

Mexico historically has been one of the leading supplier of fruit and vegetables to the United States, especially for fresh vegetables during certain times of the year. Of particular importance in recent years has been the competition in U.S. markets between domestically-produced and imported fresh winter vegetables (i.e., cucumbers, eggplant, peppers, squash, and tomatoes). According to one recent study, "Florida and Mexican producers have contested supremacy in the U.S. fresh winter vegetable market for nearly three decades." 1/ With both areas sharing a favorable climate for vegetable production, the advantages of advanced production and marketing technologies in Florida have been offset by the availability of inexpensive labor in Mexico. U.S. imports of fruit and vegetables from Mexico have risen substantially since 1961, as shown in table 102.

Table 102.--Fresh and processed fruit and vegetables: U.S. imports from Mexico, 1962-81

(In millions of dollars)

Year	Fresh and processed		Year	Fresh and processed	
	Fruit	Vegetables		Fruit	Vegetables
1962	12.9	29.0	1972	61.8	137.2
1963	27.3	35.7	1973	72.4	20.1
1964	24.4	39.6	1974	72.1	112.9
1965	25.0	64.7	1975	63.9	132.7
1966	27.2	60.4	1976	105.3	240.2
1967	36.8	65.1	1977	111.1	323.7
1968	42.6	102.7	1978	138.1	359.5
1969	43.9	137.4	1979	131.9	363.8
1970	45.7	136.0	1980	122.5	467.9
1971	48.1	137.2	1981	147.0	459.2

Source: Compiled by the staff of the U.S. International Trade Commission on the basis of data from Technical Change, Protectionism, and Market Structure: The Case of International Trade in Fresh Winter Vegetables.

1/ Technical Change, Protectionism, and Market Structure: The case of International Trade in Fresh Winter Vegetables, by Bredahl, Hillman, Rothenberg, and Gutierrez, Univ. of Arizona, Ag. Exp. Sta. Tech. Bul. 249, August 1983.

In 1978, Florida producers petitioned the U.S. Treasury Department for relief from Mexican shipments, alleged to be sold at less than fair value. However, after a number of trade meetings between the United States and Mexico concerning this issue and the withdrawal and subsequent refiling of the petition, Treasury found no dumping in 1979. A subsequent reexamination by the Commerce Department, because of the enactment of the Trade Agreement Act of 1979, also found no LTFV sales in 1980. In addition, conflicts have arisen over the marketing order in effect on fresh tomatoes. Because of the overall importance of bilateral trade between the United States and Mexico, the issue of competition in domestic markets for fruits and vegetables will not soon be resolved.

Major shifts.--Between 1979 and 1982, the major markets for U.S.-produced fruit and vegetables, as well as the major U.S. competitors 1/ in those markets, remained unchanged (tables 103-107). In 1982, Canada, Japan, and the EC were the three major markets for U.S.-produced fruit and vegetables, accounting for two-thirds of total shipments, the same as in 1979; since 1979, Japan's share rose slightly and the EC's share fell slightly, while Canada's share remained about the same.

In 1982, the major competitors of the United States in its top three foreign markets included Brazil, Israel, and Thailand, the same as in 1979, with all three especially competitive in the EC; the major competitors in Canada included the EC and Brazil, and in Japan, included the Philippines and Thailand. The U.S. share of the Canadian and EC markets remaining the same. The U.S. market share in Hong Kong and Taiwan also declined, supplanted by a rise in the market shares of Thailand and the Philippines, while the U.S. share of the market in Saudi Arabia rose significantly.

U.S. exports of fruit, vegetables, and nuts together amounted to $2.5 billion in 1983, or 16 percent higher than the $2.1 billion in 1979, and averaged $2.7 billion annually throughout the period; the trend for 1984, according to data for January-September 1984 as compared with January-September 1983, is for a 12-percent rise over the previous year's total. Fruit and vegetables accounted for about 50 percent and 33 percent, respectively, of such exports throughout this period, with Canada and Japan the principal export markets for both commodities. In 1983, fresh fruit accounted for about two-thirds of all fruit shipments to these two markets, while over 80 percent of Canadian vegetable shipments were in the fresh form, and the bulk of the exports to Japan were canned or frozen vegetables. U.S. exports of nuts, small compared with those of fruit and vegetable exports were shipped to numerous countries in recent years; the major markets in 1983, West Germany, Japan, the United Kingdom, and Canada, accounted for about half of total shipments.

1/ Including the EC-10, Argentina, Thailand, Brazil, Spain, Israel, and the Philippines.

Table 103.--Fruits and vegetables: Exports, by selected suppliers, by major U.S. markets, 1979

(In millions of dollars)

Source	Major U.S. markets										United States	All other	Total
	Canada	Japan	EC-10	Hong Kong	Saudi Arabia	Taiwan	Singa-pore	Sweden	Australia	Colombia			
United States	582	300	317	92	35	43	22	39	12	16	-	368	1,826
EC-10	24	34	-	1/	75	1/	1/	125	13	1/	75	1,325	1,670
Argentina	3	1	103	1/	1/	1/	1/	1/	1/	1	40	267	426
Thailand	5	47	475	15	2	14	11	2/	2/	1/	43	46	658
Brazil	29	3	148	2/	1	1/	1	17	2	1/	74	101	376
Spain	16	6	1,457	1/	8	1/	1/	38	4	1	103	220	1,853
Israel	4	5	365	2/	1/	6	6	22	1	1/	10	88	507
Philippines	7	97	18	7	14	0	2	2	-	1/	60	9	214

1/ Not available.
2/ Less than $0.5 million.

Source: Compiled from official statistics of the United Nations.

Table 104.--Fruits and vegetables: Exports, by selected suppliers by major U.S. markets, 1980

(In millions of dollars)

Source	Major U.S. markets										United States	All other	Total
	Canada	Japan	EC-10	Hong Kong	Saudi Arabia	Taiwan	Singa-pore	Sweden	Australia	Colombia			
United States	46	325	485	109	40	47	32	49	14	24	-	1,301	2,472
EC-10	23	34	-	1/	63	1/	1/	145	12	1/	84	1,550	1,910
Argentina	1	1	101	1/	1/	1/	1/	12	1/	1	29	245	389
Thailand	6	44	702	16	4	23	12	2/	1	1/	59	53	920
Brazil	25	3	210	1	2	1/	1/	17	8	1/	71	111	448
Spain	14	5	1,441	1/	12	1/	1/	35	3	2	108	238	1,858
Israel	2	3	383	2/	1/	9	3	22	1/	1	8	74	505
Philippines	8	104	22	9	18	-	1	2	-	1/	69	18	251

1/ Not Available.
2/ Less than $0.5 million.

Source: Compiled from official statistics of the United Nations.

Table 105.--Fruits and vegetables: Exports, by selected suppliers, by major U.S. markets, 1981

(In millions of dollars)

Source	Major U.S. markets										United States	All other	Total
	Canada	Japan	EC-10	Hong Kong	Saudi Arabia	Taiwan	Singa-pore	Sweden	Australia	Colombia			
United States	763	417	485	130	52	57	35	49	22	24	-	907	2,941
EC-10	28	31	-	1/	69	1/	1/	123	15	1/	90	1,350	1,706
Argentina	2	1	89	1/	1/	1/	1/	12	1/	1	30	203	338
Thailand	8	47	675	25	4	31	17	2/	2	1/	78	109	996
Brazil	28	6	338	2/	5	1/	-	17	4	1/	275	95	768
Spain	17	7	1,309	1/	11	1/	1/	30	4	3	116	212	1,709
Israel	3	3	410	2/	1/	7	3	23	1	1/	22	77	549
Philippines	10	114	24	21	19	-	2	2	1	1/	66	16	275

1/ Not available.
2/ Less than $0.5 million.

Source: Compiled from official statistics of the United Nations.

Table 106.--Fruits and vegetables: Exports, by selected suppliers, by major U.S. markets, 1982

(In millions of dollars)

Source	Major U.S. markets										United States	All other	Total
	Canada	Japan	EC-10	Hong Kong	Saudi Arabia	Taiwan	Singa-pore	Sweden	Australia	Colombia			
United States	738	372	393	119	54	39	37	40	22	39	-	569	2,422
EC-10	36	35	-	1/	72	1/	1/	120	15	1/	109	1,229	1,614
Argentina	1	1	95	1/	1/	1/	1/	13	1/	5	40	198	353
Thailand	6	60	809	29	4	24	19	1	2	1/	53	101	1,109
Brazil	25	7	200	2/	3	1/	1	14	12	1/	317	80	644
Spain	23	7	1,283	1/	16	1/	1/	34	4	2	135	203	1,707
Israel	4	6	363	1/	1/	6	2	21	2	1/	28	73	504
Philippines	9	124	25	31	19	2/	3	3	1	1/	74	0	304

1/ Not available.
2/ Less than $0.5 million.

Source: Compiled from official statistics of the United Nations.

Table 107.--Fruits and vegetables: Exports, by selected suppliers, by major U.S. markets, 1983

(In millions of dollars)

Source	Major U.S. markets										United States	All other	Total
	Canada	Japan	EC-10	Hong Kong	Saudi Arabia	Taiwan	Singa-pore	Sweden	Australia	Colombia			
United States	710	384	350	132	53	47	40	35	28	27	-	388	2,194
EC-10	38	33	-	2/	92	1/	1/	115	15	1/	123	62	1,562
Argentina	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
Thailand	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
Brazil	38	6	442	2/	1	2/	2/	14	17	1/	470	69	1,057
Spain	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/
Israel	2	4	327	2/	1/	9	3	18	3	1/	30	64	460
Philippines	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/

1/ Not available.
2/ Less than $0.5 million.

Source: Compiled from official statistics of the United Nations.

U.S. imports of fruit, vegetables, and nuts rose steadily from $1.9 billion in 1979 to $2.9 billion in 1983, an increase of 56 percent, with a 36 percent increase during January-September 1984 as compared with January-September 1983 (table 101). Fruit and vegetables accounted for about 90 percent of annual imports during 1979-83, with Mexico and Brazil collectively accounting for one-third of 1983 fruit, vegetables, and nuts imports. In 1983, the leading suppliers of fruit to the United States included Brazil, Mexico, Costa Rica, Honduras, and Chile; over half of such imports were fresh fruit from Costa Rica, Honduras, and Chile. Spain and the Philippines were the primary suppliers of prepared or preserved fruit, and the bulk of fruit juice imports were from Brazil. U.S. imports of nuts in 1983, valued at $250 million and imported primarily from India, Brazil, and the Philippines, accounted for about 10 percent of fruit, vegetables, and nut imports in that year.

Government programs

United States.--The principal U.S. Government program for fruit, vegetables, and nuts is the Federal marketing order program, based on the Agricultural Marketing Agreement Act of 1937, as amended. The stated purpose of the Act was to regulate the handling of agricultural commodities in interstate or foreign commerce and interstate movement which burdens, obstructs, or affects interstate commerce. These marketing orders, or regulatory programs, issued and supervised by the Secretary of Agriculture at the request of producers, legally obligate first buyers of fruit and vegetables to follow specified trade practices and restrictions on sales. In January 1981, there were 47 orders in effect, covering all or part of domestic production and sale of 33 different fruit, vegetables, nuts, and certain horticultural specialties.

In cases where imported products compete directly with domestic production, the imported products must meet the same quality standards established by the marketing order. At the present time, 13 imported items are covered, as shown in the following tabulation:

Fruit	Vegetables	Other
Avocados	Potatoes	Dates
Grapefruit	Onions	Walnuts
Limes	Tomatoes	Prunes
Oranges		Raisins
Olives		Filberts

Recently, a study of the effectiveness of Federal marketing orders suggested that such orders have not yielded either more stable or higher farm prices. 1/

1/ U. S. Department of Agriculture, Economic Research Service, Effectiveness of Federal Marketing Orders for Fruits and Vegetables, Agricultural Economic Report No. 471, June 1981.

European Community 1/.--The EC's support system for fruit and vegetables revolves around aids to producer groups to encourage them to control supplies and to adhere to common standards to stop poorer quality produce from entering the market. 2/ Three internal support prices are set annually by the EC: basic, buying-in, and withdrawal prices.

Basic prices are set by averaging EC domestic market prices in the 3 preceding years. Buying-in prices, which are set at various proportions of the basic price, are the prices at which national intervention agencies may intervene once the EC makes a decision. All the EC members, except Greece, allow producer groups to withdraw production instead.

Market prices are supported by a system of compensation for withdrawal of produce from the market by members' intervention agencies. Since fruit and vegetables are perishable and storage for long periods is not economical, the price-support system is not designed to achieve a guaranteed price in periods of surplus and shortage. Instead, EC policy seeks to avert a fall in price to disastrous levels. Support prices take the form of compensation for withdrawal and are derived from basic and buying-in prices by the application of coefficients that take into account variety, quality, size, and presentation. They are set at levels that are far below the levels normally obtained in the market. Withdrawal prices are the only internal support prices that are relevant in practice because these are the levels at which producer organizations receive reimbursement from the EC for withdrawl operations. Producer groups may withdraw any products, at any price, but they receive compensation only for 11 products at the withdrawal price. 3/ Withdrawal price are higher than buying-in prices by an amount equal to 10 percent of the basic prices. For most products, withdrawals have been relatively limited. EC member states must ensure that supplies, once withdrawn, do not reemerge on the commercial market. Provision is made for free distribution to charitable institutions, schools, prisons, and hospitals.

The EC grants production restitution payments to processors of fruit and vegetable products to improve their competitive position against third-country producers. The EC makes payments to processors if they contract to pay growers the minimum price specified by the EC. In return, processors are obliged to pay the raw product producer a minimum price on a contract basis. The payment is given on a range of products, although most of them are tomato products. For example, the EC has approved payments for Italian and French

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1/ The CAP covers all temperate fresh fruit and vegetables (excluding fresh grapes other than table grapes, potatoes, and olives), nuts (excluding tropical nuts), and all processed fruit and vegetables.

2/ Simon Harris, et. al., The Food and Farm Policies of the European Community 1983, p. 153. A more heavily structured support system involving mandatory intervention buying and high levels of external protection has not been created because of the fear of generating major surpluses and high budget costs due to the variability of fresh fruit and vegetable production.

3/ These 11 products are apples, pears, peaches, sweet oranges, mandarins, lemons, table grapes, tomatoes, aubergines, apricots, and cauliflowers.

processors of tomato concentrates, tomato juice, canned peeled tomatoes, canned peaches, and dried prunes. The restitution payments are designed to bolster the depressed economies of southern France and Italy, to help facilitate the integration of Greece into the EC and facilitate the expansion of the EC to include Spain and Portugal. Although the processor must pay higher grower prices to receive payments, the restitution payment is a mechanism for income support to growers in these less efficient farm areas. Similar payments have been provided to EC orange juice producers, pineapple canners, and lemon processors.

The EC provides export restitution payments to enable traders within the EC to compete with third country products in third country markets. Processed products containing added sugar receive a restitution payment fixed by reference to the added sugar content of certain specified products. Payments may also be paid on all products covered by the EC irrespective of the added sugar or, in the absence of such sugar, when this is in the interest of the EC. These refunds may be brought into use when the sugar refund is found to be inadequate in the export of sweetened goods, but can only be paid on goods originating in the EC. The goods currently eligible for this restitution payment are sulphurized cherries, glace cherries, pure orange juice, and processed hazelnuts. Export restitution payments for oranges are available as are "penetration premiums" to encourage orange exports to other EC countries. Export restitutions for grapes are also available but are not offered for shipment to other EC members.

The EC and its members pay restitution payments for planting improved varieties and constructing or modernizing facilities.

The EC 1/ also applies ad valorem import duties on nonmember imports to protect internal producers from outside competition. The EC tariff system is designed to discourage imports when Italian and French production is higher. Tariffs reach the maximum level during the regular season and then decline to their minimum during the summer.

Reference prices are determined each year by the EC on the basis of average producer prices in the preceding 3 years. 2/ The price of the imported produce is monitored in representative markets for each foreign supplier. From this figure the full rate of the customs duty that should have been paid is deducted. This calculation is designed to show whether or not the products from any particular country complied with the reference price

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1/ This section is based in part on Simon Harris, et. al., op. cit., pp. 158-60.

2/ With the provision that from one year to the next the reference price will be not less than the price fixed from the same period the previous year nor be increased by more than the estimated percentage increase in production costs.

when imported. 1/ When import entry prices fall below their reference prices, countervailing duties are levied against imports from the offending country until prices are equalized. 2/

Preferred trading partners in the Mediterranean Basin and the Lome Convention receive extensive tariff cuts. Tariff preferences for the Mediterranean and Lome countries do not allow them to undercut the minimum entry price in Europe. It does allow them higher export earnings, provided they have marketing boards that can ensure countervailing duties are not applied.

Import certificates allow the EC to monitor the market and maintain equilibrium by introducing emergency safeguard action if the market is, or is likely to be, threatened by imports from third countries. 3/ Without import certificates, the goods cannot be imported. The import certificate obliges the holder to import the quantity of goods shown.

Increasing levels of EC producer supports in addition to import restrictions have fostered a high cost industry in the EC. 4/ The EC's high prices have depressed consumption for all major categories of fresh products, except citrus. The United States believes that its fresh fruit and vegetable exports have been put at a competitive disadvantage in the EC market because of the EC's tariff preferences granted to the Mediterranean countries. The United States and other producers argue that such exceptions violate the trade preferences negotiated under the GATT. As a result of these preferences, U.S. oranges have not been able to penetrate the EC market except when supplies from the Mediterranean countries are seasonally small or nonexistent. U.S.

1/ If the calcuations show that the import price was less than the reference price by 0.6 ECU's per 100 kilograms or more, for 2 successive days, or for 3 days out of 5, then the EC Commission may impose a countervailing duty on all future supplies of this product from the offending country until it is shown that the reference price will be respected. The countervailing charge is fixed at the difference between the calculated offer price and the reference price. The intention is to ensure that a minimum import price, equal to the reference price plus the full ad valorem customs duty, is respected.

2/ In October 1982, the EC used its safeguard powers to introduce minimum import prices for dried grapes other than currants. If a consignment enters the EC at less than the minimim import price, a fixed countervailing duty is charged.

3/ Products covered by this system are tomato concentrate, canned peeled tomatoes, peaches in syrup, mushrooms (canned for immediate consumption and provisionally preserved in brine), canned pears, peas, and beans in pod, dried prunes, tomato juice, all forms of processed raspberries, frozen and provisionally preserved strawberries, and dried grapes.

4/ Wayne Sharp, "EC Expansion: What it Implies for U.S. Fruits and Vegetables," Foreign Agriculture, March 1982, pp 12-13.

trade is generally limited to the summer months, even though there are often ample supplies of U.S. oranges for export in winter. 1/

Japan.--Japan restricts trade in oranges and citrus juices (except lemon) by import quota and other barriers to trade. The United States-Japan Beef and Citrus agreement reached during the Tokyo Round of MTNs committed Japan to expand quotas over a four year period beginning in 1980. In April 1984, the United States and Japan agreed to a new citrus agreement in which Japan pledged to continue to increase at an accelerated pace fresh orange imports from 1983 to 1987. Japan agreed to increase fresh orange imports 11,000 tons annually from 1983's level of 82,000 metric tons to 126,000 metric tons in 1987 and to increase orange juice concentrate imports 500 metric tons annually from 1983's level of 6,500 tons to 8,500 tons in 1987.

The U.S.-Japan agreement also commits Japan to announce its fresh orange quotas in a more timely fashion. The annual quotas (good for 12 months) are now announced in half-year portions in March and September. The off-season quotas (good for June-August) are announced in March. Quotas are now allocated to importers in the month following announcement. The annual increase in the fresh orange quotas is distributed so that a greater portion is added to the annual quotas than to the off season quotas. The orange juice quotas are announced and allocated in October. The requirement that all imported orange juice be blended with domestically produced mikan juice has been revised to permit sale of some juice products having up to 90 percent imported juice compared with the previous upper limit of 50 percent.

Sugar

World

Overall pattern.--World free-market trade in sugar is small and residual. Generally, 75 to 80 percent of world sugar production is consumed in the country in which it is grown. A large part of the remainder is sold under preferential arrangements, e.g., Cuban sales to the Soviet Union. Only about 10 percent of world sugar production is traded on the free market.

During crop years 1979/80 to 1983/84, world trade in sugar was in a very narrow range, averaging about 28 million metric tons annually. During that period, world production of sugar ranged from 84 million to 101 million tons;

1/ A sec. 301 petition was lodged at the GATT by the United States on Nov. 12, 1976, alleging that the EC's preferential import duties on fresh citrus fruits and orange and grapefruit juices from certain Mediterranean countries were having an adverse effect on U.S. citrus producers. In the course of the MTN, a duty reduction was obtained on fresh grapefruit. The United States and the EC have engaged in GATT art. XXIII:1 consultations regarding the tariff preferences without resolution of the problem. The matter is still pending before the GATT.

consumption increased slowly and regularly from 90 million to 96 million tons. Since the 1981 crop, world sugar production has exceeded consumption, with a resulting buildup of stocks (table 108). Stock levels of 25 percent of consumption are considered necessary to ensure stable prices. 1/

Sugar prices are very volatile and unstable. World prices generally follow a pattern of high prices for 1 or 2 years and then several years of low prices. The most recent price peaks were in 1974-75 and 1980-81 (Fig. 5).

There have been a series of international sugar agreements (ISA's) which have attempted to stabilize world sugar prices through a system of country-by-country export quotas and a system of reserve stocks. The 1977 ISA, which expired December 31, 1984, attempted to maintain world prices within the range of 13 to 23 cents per pound. Sixty countries were members. However, the EC, which exports about one-fifth of the free market sugar, was not a member. ISA's have been ineffective in meeting their objectives. Currently, an administrative ISA is in effect; it has no economic provisions and functions principally as a statistical gathering entity (and as a forum for negotiations for a new ISA).

The leading exporters of sugar are Cuba, the EC, Brazil, Australia, Thailand, and the Philippines, together supplying 67 percent of world exports in 1983. The leading importing countries are the Soviet Union, the United States, the EC, Japan, Canada, Mexico, and China, together accounting for about 60 percent of world imports.

Trends.--World consumption of sugar is increasing very slowly, at rates variously projected to be from 1.8 million to 2.0 million tons per year. However, consumption (particularly on a per capita basis) has peaked in most developed countries. Several developing countries, in which there is a potential for increased sugar consumption, are attempting to be self sufficient in sugar production, or even to produce for export. The demand in other developing countries is principally for refined (white) sugar rather than for raw sugar, owing to the high cost of establishing sugar refineries. According to the International Sugar Organization, world trade in white sugar increased by 50 percent during 1979-83; currently, about one-third of the sugar traded internationally is white sugar.

In recent years, the EC has emerged as a major world exporter of sugar. The EC was a net importer prior to 1977. The U.S. Department of Agriculture 2/ attributes the buildup of world sugar stocks in recent years to "EC policies designed to subsidize both production and exports." EC sugar production is believed to have stabilized at about 12 million to 13 million tons annually. 3/

1/ U.S. Department of Agriculture, Sugar: Background for 1985 Farm Legislation, Agriculture Information Bulletin No. 478, September 1984.
2/ Ibid.
3/ Simon Harris, Group Econimist and EEC Advisor, After the ISA, S&W Berisford pic, London, Dec. 5, 1984.

Table 108.—Sugar: World supply and utilization, crop years 1974/75 to 1983/84

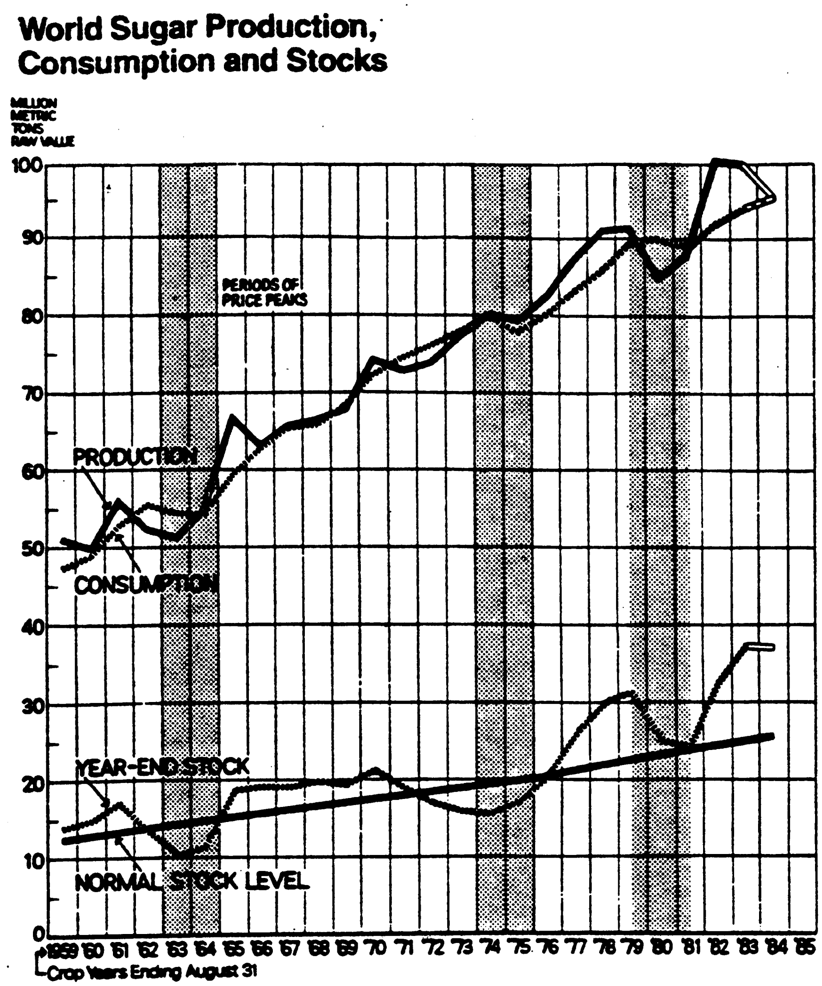
(In millions of metric tons, raw value)

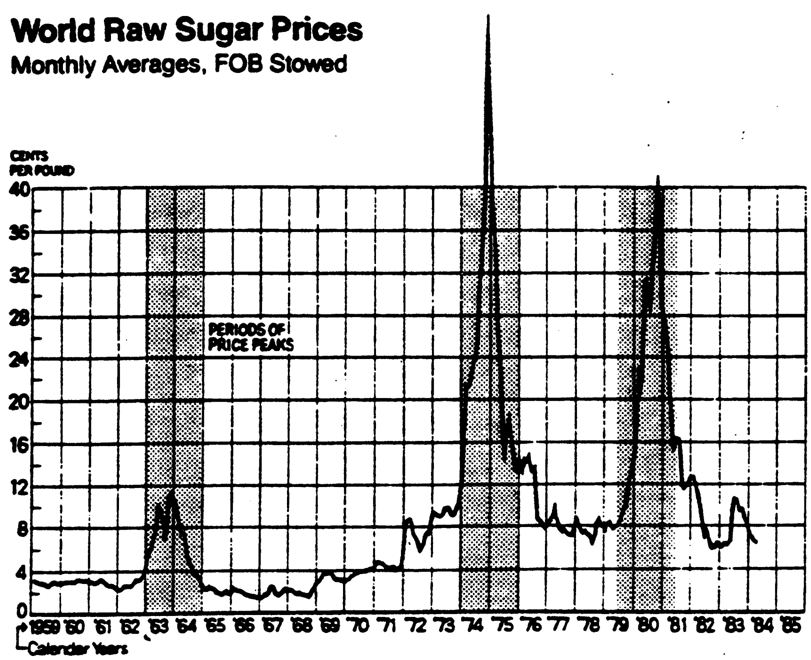
Year beginning Oct. 1—	Supply				Utilization			Ending stocks
	Beginning stocks	Production	Imports	Total	Consumption	Exports	Total use	
1974—	17.32	78.52	22.98	118.82	77.09	22.85	99.94	18.88
1975—	18.88	81.68	23.13	123.69	79.15	23.55	102.70	20.99
1976—	20.99	86.30	26.34	133.63	81.91	26.96	108.87	24.76
1977—	24.76	92.54	25.96	143.26	86.17	27.24	113.41	29.85
1978—	29.85	91.19	26.72	147.76	89.65	27.47	117.12	30.64
1979—	30.64	84.24	27.18	142.06	89.52	28.93	118.45	23.61
1980—	23.61	88.78	27.14	139.53	89.69	1/ 27.14	116.83	22.70
1981—	22.70	100.72	28.87	152.29	90.65	1/ 28.87	119.52	32.77
1982—	32.77	101.15	28.36	162.28	93.81	1/ 28.36	122.17	40.11
1983—	40.11	94.74	27.97	162.82	95.70	1/ 27.97	123.67	39.15

1/ Exports were assumed to equal imports for crop years 1980/81 to 1983/84 owing to data discrepancies.

Source: Computed from data compiled by the Foreign Agricultural Service, US Department of Agriculture.

Figure 5.--Sugar: World production, consumption, stocks, and prices, 1959-84.





Source: Overview of U.S. and World Raw Sugar Market Fundamentals, Amstar Corporation--American Sugar Division, May 1984.

The share of world imports of sugar accounted for by developed countries dropped from 63 to 31 percent during 1973-82. During the same period, centrally planned economies increased their share of world sugar imports from 17 to 36 percent. 1/ The decline in the share of world imports by developed countries has been attributed 2/ to Government policies, particularly in the EC, the United States, and in Japan, that maintain high domestic prices which discourage consumption, encourage domestic production, and encourage the production of alternative sweeteners, particularly high-fructose syrup (HFS). The substitution of HFS for sugar has gone furthest in the United States, but is progressing rapidly in Japan. In the EC, there is only limited use of HFS owing to a production quota system. HFS accounted for an estimated 4 percent of total world sweetener consumption in 1984; it is estimated that HFS usage by 1990 will account for 8 to 10 percent of total sweetener usage. 3/

U.S. trade

The United States is a substantial net importer of sugar and other sweeteners. During 1979-83, U.S. imports varied from 4.6 million metric tons, valued at $2.1 billion, in 1981 to 2.4 million metric tons, valued at $800 million, in 1982 (table 109). Most of the imports consisted of raw sugar, which is refined in the United States. Sugar is also produced in the United States from domestically grown sugarcane and sugar beets, which are subject to a price-support program. The price-support program has been protected from import interference by a system of import duties and fees and, more recently, by a system of import quotas.

The most recent price-support program for sugarcane and sugar beets was mandated by section 201 of the Agricultural Act of 1949, as amended by the Agriculture and Food Act of 1981. The 1981 amendments require that 1982-crop sugar processed from domestically grown sugarcane and sugar beets between December 22, 1981, and March 31, 1982, be eligible for purchase under a price-support purchase program, the purpose of which was to provide price support to producers of sugarcane and sugar beets. Additionally, the 1981 amendments provide that effective October 1, 1982, the remaining 1982-crop sugar and 1983 through 1985 crop sugar (full crop years) will be eligible for price support through a price-support loan program. The minimum price-support level was 16.75 cents per pound for raw sugar under the purchase program, gradually increasing to 18 cents per pound for 1985 crop sugar.

Since the effective date of the price-support program for sugar mandated by the Agriculture and Food Act of 1981 (Dec. 21, 1981), world prices for sugar have been below the U.S. support prices. The U.S. Government has taken a series of actions to protect the price-support program from imports.

1/ Ibid., p. 2.
2/ Ibid., pp. 8-9.
3/ Ibid., p. 4.

Table 109--Sugar: U.S. imports, raw and refined, by major world marketing regions, 1979-84 and January-September 1983 and 1984

(In thousands of dollars)

MARKETING REGION AND COMMODITY	CALENDAR YEAR 1979	1980	1981	1982	1983	JANUARY - SEPTEMBER 1983	1984	ANNUAL GROWTH RATE(%)
WORLD								
SUGAR,BEET/CANE,RAW	942,340	1,991,620	2,138,703	786,216	1,019,024	704,161	815,703	2
SUGAR,BEET/CANE,REFINED	25,329	3,276	2,504	11,754	6,543	1,102	8,321	-29
REGIONAL TOTAL	967,670	1,994,897	2,141,207	797,970	1,025,567	705,263	824,025	1
NORTH AMERICA								
SUGAR,BEET/CANE,RAW	17,909	0	0	322	14,533	6,568	706	-5
SUGAR,BEET/CANE,REFINED	24,928	667	1,114	11,189	4,046	210	4,216	-37
REGIONAL TOTAL	42,836	667	1,114	11,510	18,578	6,778	4,923	-19
CARIBBEAN								
SUGAR,BEET/CANE,RAW	182,259	319,888	348,266	127,040	198,557	157,777	189,314	2
SUGAR,BEET/CANE,REFINED	20	0	42	14	457	241	2,596	120
REGIONAL TOTAL	182,278	319,888	348,308	127,054	199,014	158,018	191,910	2
CENTRAL AMERICA								
SUGAR,BEET/CANE,RAW	152,639	336,679	287,284	136,662	225,947	159,692	129,740	10
SUGAR,BEET/CANE,REFINED	0	443	423	115	26	20	499	-61
REGIONAL TOTAL	152,639	337,121	287,708	136,776	225,974	159,712	130,238	10
SOUTH AMERICA								
SUGAR,BEET/CANE,RAW	373,714	698,348	766,704	206,806	273,795	163,010	235,408	-7
SUGAR,BEET/CANE,REFINED	4	1,828	324	105	1,406	346	30	338
REGIONAL TOTAL	373,718	700,176	767,028	206,911	275,200	163,357	235,438	-7
EUROPEAN COMMUNITY (EC-10)								
SUGAR,BEET/CANE,REFINED	2	77	58	29	99	74	161	181
SUGAR,BEET/CANE,RAW	0	0	7	1	0	0	0	-87
REGIONAL TOTAL	2	77	64	30	99	74	161	181
NON-EC W. EUROPE								
SUGAR,BEET/CANE,REFINED	2	5	9	3	3	0	1	17
SUGAR,BEET/CANE,RAW	743	0	0	0	0	0	0	0
REGIONAL TOTAL	744	5	9	3	3	0	1	-75

Table 109.--Sugar: U.S. imports, raw and refined, by major world marketing regions, 1979-84 and January-September 1983 and 1984

(In thousands of dollars)

MARKETING REGION AND COMMODITY	CALENDAR YEAR 1979	1980	1981	1982	1983	JANUARY - SEPTEMBER 1983	1984	ANNUAL GROWTH RATE(%)
AFRICA (EXCEPT NORTH AFRICA)								
SUGAR, BEET/CANE, RAW	99,820	256,261	179,024	91,359	81,209	51,546	73,266	-5
SUGAR, BEET/CANE, REFINED	13	0	6	33	451	201	622	143
REGIONAL TOTAL	99,833	256,261	179,030	91,392	81,660	51,747	73,887	-5
SOUTH ASIA								
SUGAR, BEET/CANE, RAW	0	1	1	5	10,996	2,036	0	2,573
SUGAR, BEET/CANE, REFINED	3	11	28	47	5	5	25	11
REGIONAL TOTAL	3	11	29	53	11,001	2,041	25	660
EAST ASIA								
SUGAR, BEET/CANE, RAW	63,224	199,658	213,767	162,471	119,852	113,985	145,818	17
SUGAR, BEET/CANE, REFINED	19	64	365	219	50	5	172	28
REGIONAL TOTAL	63,243	199,723	214,132	162,690	119,902	113,990	145,990	17
AUSTRALIA & OCEANIA								
SUGAR, BEET/CANE, RAW	52,033	180,785	343,650	61,550	94,137	49,548	41,452	16
SUGAR, BEET/CANE, REFINED	340	182	135	0	0	0	0	-37
REGIONAL TOTAL	52,373	180,967	343,785	61,550	94,137	49,548	41,452	16

NOTE: GROWTH RATES REPRESENT COMPOUNDED AVERAGE ANNUAL GROWTH BETWEEN 1979 AND 1983

SOURCE: COMPILED FROM OFFICIAL TRADE STATISTICS OF THE U.S. BUREAU OF THE CENSUS

TRADE AND ECONOMIC INFORMATION DIVISION
INTERNATIONAL AGRICULTURAL STATISTICS
FOREIGN AGRICULTURAL SERVICE, USDA

Table 109 .--Sugar: U.S. imports, raw and refined, by major world marketing regions, 1979-84 and January-September 1983 and 1984

(In metric tons)

MARKETING REGION AND COMMODITY	CALENDAR YEAR 1979	1980	1981	1982	1983	JANUARY - SEPTEMBER 1983	1984	ANNUAL GROWTH RATE(%)
WORLD								
SUGAR,BEET/CANE,RAW	4,359,519	3,794,717	4,640,898	2,360,871	2,648,376	1,831,596	2,061,740	-12
SUGAR,BEET/CANE,REFINED	71,861	6,606	4,416	29,754	17,291	3,145	16,653	-30
REGIONAL TOTAL	4,431,380	3,801,323	4,645,314	2,390,625	2,665,667	1,834,740	2,078,393	-12
NORTH AMERICA								
SUGAR,BEET/CANE,RAW	65,368	0	0	1,019	32,402	14,451	1,952	-16
SUGAR,BEET/CANE,REFINED	70,494	667	2,490	28,509	8,612	465	8,990	-41
REGIONAL TOTAL	135,862	667	2,490	29,528	41,014	14,917	10,942	-26
CARIBBEAN								
SUGAR,BEET/CANE,RAW	868,700	659,860	701,453	378,396	490,764	395,176	451,689	-13
SUGAR,BEET/CANE,REFINED	102	0	77	45	990	488	4,993	77
REGIONAL TOTAL	868,802	659,860	701,529	378,441	491,755	395,664	456,682	-13
CENTRAL AMERICA								
SUGAR,BEET/CANE,RAW	697,733	677,086	571,711	408,922	582,124	405,469	321,297	-4
SUGAR,BEET/CANE,REFINED	0	709	459	296	58	40	1,005	-57
REGIONAL TOTAL	697,733	677,794	572,170	409,218	582,182	405,509	322,302	-4
SOUTH AMERICA								
SUGAR,BEET/CANE,RAW	1,757,607	1,271,315	1,698,997	606,468	769,718	462,887	598,529	-19
SUGAR,BEET/CANE,REFINED	4	4,494	448	286	6,340	1,550	44	529
REGIONAL TOTAL	1,757,611	1,275,809	1,699,445	606,753	776,059	464,437	598,573	-18
EUROPEAN COMMUNITY (EC-10)								
SUGAR,BEET/CANE,REFINED	2	51	34	39	220	170	366	229
SUGAR,BEET/CANE,RAW	0	0	1	1	0	0	0	0
REGIONAL TOTAL	2	51	35	40	220	170	366	229
NON-EC W. EUROPE								
SUGAR,BEET/CANE,REFINED	1	4	6	2	2	0	1	2
SUGAR,BEET/CANE,RAW	3,208	0	0	0	0	0	0	0
REGIONAL TOTAL	3,209	4	6	2	2	0	1	-85

Table 109 .--Sugar: U.S. imports, raw and refined, by major world marketing regions 1979-84 and January-September 1983 and 1984

(In metric tons)

MARKETING REGION AND COMMODITY	CALENDAR YEAR 1979	1980	1981	1982	1983	JANUARY - SEPTEMBER 1983	1984	ANNUAL GROWTH RATE(%)
AFRICA (EXCEPT NORTH AFRICA)								
SUGAR,BEET/CANE,RAW	413,992	478,426	370,024	263,087	235,107	156,317	177,414	-13
SUGAR,BEET/CANE,REFINED	16	0	5	89	919	416	1,006	175
REGIONAL TOTAL	414,008	478,426	370,029	263,176	236,026	156,733	178,420	-13
SOUTH ASIA								
SUGAR,BEET/CANE,RAW	0	1	1	10	26,793	6,443	0	2,991
SUGAR,BEET/CANE,REFINED	11	19	38	88	10	10	46	-4
REGIONAL TOTAL	11	20	39	98	26,802	6,452	46	597
EAST ASIA								
SUGAR,BEET/CANE,RAW	359,540	409,780	460,312	532,526	282,630	269,902	411,745	-6
SUGAR,BEET/CANE,REFINED	30	64	559	399	140	6	201	47
REGIONAL TOTAL	359,570	409,844	460,871	532,925	282,770	269,908	411,946	-6
AUSTRALIA & OCEANIA								
SUGAR,BEET/CANE,RAW	193,370	298,249	838,400	170,443	228,837	120,950	99,114	4
SUGAR,BEET/CANE,REFINED	1,200	600	300	0	0	0	0	-50
REGIONAL TOTAL	194,570	298,849	838,700	170,443	228,837	120,950	99,114	4

NOTE: GROWTH RATES REPRESENT COMPOUNDED AVERAGE ANNUAL GROWTH BETWEEN 1979 AND 1983
SOURCE: COMPILED FROM OFFICIAL TRADE STATISTICS OF THE U.S. BUREAU OF THE CENSUS

TRADE AND ECONOMIC INFORMATION DIVISION
INTERNATIONAL AGRICULTURAL STATISTICS
FOREIGN AGRICULTURAL SERVICE, USDA

Initially, a system of import fees (imposed pursuant to sec. 22 of the Agricultural Adjustment Act) and import duties was imposed, beginning December 21, 1981. World sugar prices subsequently declined, and the import duties and fees (both of which have legal limitations) were not sufficient to raise the price of imports to the support level. A system of import quotas on sugar was imposed on May 11, 1982. 1/ On June 29, 1983, and on January 29, 1985, quotas were imposed on imports of certain articles containing sugar. 2/

The U.S. price-support system for sugar and the accompanying import restrictions have had several effects on trade. The initial attempt at import restrictions, a system of increased import duties and import fees, had legal maximums that the sugar trade recognized as making the system incapable of protecting the price-support system from imports in a period of falling world sugar prices. Importers (and foreign suppliers) recognized that a quota system would need to be used; thus, they increased shipments to the United States to beat the imposition of such a system. Imports of sugar into the United States in 1981 amounted to 5.0 million short tons compared with imports of 4.5 million short tons in 1980. The import quota system was imposed in May 1982. Imports in 1982 amounted to only 3.0 million tons as the quotas (initially on a quarterly basis) were very restrictive. The overall quotas are allocated country by country, with shares based on trade during 1975-81, a period when there were no restrictive import quotas.

The system of price supports and import restrictions kept sugar prices up and encouraged the building and expansion of facilities for the production of high-fructose corn sirup (HFCS). Increased use of HFCS reduces the demand for sugar. In 1983, HFCS accounted for about 25 percent of caloric sweetener use (compared with less than 2 percent a decade earlier). Under the present system, reduced sugar consumption is entirely at the expense of imports. Sugar consumption in the United States declined by about 20 percent between 1977 and 1983. The system also has encouraged the importation of HFCS into the United States since imported HFCS would compete with U.S.-priced sugar rather than world-price sugar. December 1984 prices for refined sugar were about 30 cents per pound in the United States and 10 cents per pound in the world market.

Imported sugar is eligible for duty-free treatment under the Generalized System of Preferences (GSP). The GSP system provides for exceptions (country-by-country) to the duty-free treatment when imports from a particular country exceed a specified dollar value during a calendar year (the so-called competitive need criteria). There have been changes (additions or deletions) in the list of GSP-eligible countries for sugar each year since the system was implemented. There have been numerous instances of a country reducing (or stopping) its exports of sugar to the United States at the end of a calendar

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1/ For additional details, see Sugar: Report to the President on Investigation No. 22-45 Under Section 22 of the Agricultural Adjustment Act, USITC Publication 1253, June 1982.

2/ For additional details, see Certain Articles Containing Sugar: Report to the President on Investigation No. 22-46 Under Section 22 of the Agricultural Adjustment Act, USITC Publication 1462, December 1983.

year in order to remain on the eligible list, or, if they have exceeded the dollar value amount and will be declared ineligible (changes are made effective April 1), countries shipping as much as possible to avoid the incidence of the coming imposition of import duties on their products.

The Caribbean Basin Economic Recovery Act of 1983 provides for annual duty-free absolute quotas on imports of sugar into the United States from the Dominican Republic, Guatemala, and Panama, effective January 1, 1984, as follows:

Source	Quota (metric tons)
Dominican Republic	780,000
Guatemala	210,000
Panama	160,000
Total	1,150,000

The Dominican Republic has been ineligible for duty-free treatment under the GSP system since its inception; Guatemala and Panama have been on and off the list of eligible countries.

The United States usually is not an exporter of sugar. However, the U.S. system of drawback (refund) of import duties has resulted in significant U.S. exports of refined sugar. The drawback system allows the refund of import duties (including sec. 22 fees) paid within the previous 3 years upon the export of a product made from the type of article that was previously imported. This substitution provision is particularly advantageous in a period of low import duties following a period of higher duties. Import duties (including fees) on sugar ranged from 6.88 cents per pound to free during recent years. On June 29, 1983, regulations became effective allowing raw sugar to be imported outside the quota system in amounts equivalent to exports of refined sugar. Importer/refiners imported such quota-exempt sugar only from GSP-eligible sources. Exports of sugar in 1983 amounted to 190,000 metric tons compared with 46,000 metric tons in 1982.

The import quotas on sugar and the resultant price disparities between U.S. and world prices led to increased imports of articles with high sugar contents. Blends of liquid sugar and HFCS and blends of sugar and dextrose began to be imported soon after the imposition of quotas on sugar. On June 28, 1983, the President imposed (Presidential Proclamation 5071) zero quotas on imports of certain such blends. 1/ Imports of other blends and articles with a high sugar content continued to increase since then owing to the disparity between U.S. and world sugar prices. On January 28, 1985, the President proclaimed (Presidential Proclamation 5294) quotas on imports of sweetened cocoa and on certain other articles containing sugar.

1/ For additional details see Certain Articles Containing Sugar, Report to the President on Investigation No. 22-46 Under Section 22 of the Agricultural Adjustment Act, USITC Publication 1462, December 1983.

Appendix A

Copy of Letter to Chairwoman Stern from Senator Robert J. Dole, Chairman, U.S. Senate Committee on Finance

United States Senate

COMMITTEE ON FINANCE
WASHINGTON, D.C. 20510

RECEIVED
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August 10, 1984

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Office of the Secretary
Int'l Trade Commission

OFFICE OF COMMISSIONER ~~CALHOUN~~
Stern

Honorable Paula Stern
Chairman
International Trade Commission
Washington, D.C.

Dear Madam Chairman:

The Senate Committee on Finance requests that the United States International Trade Commission conduct an investigation under section 332 of the Tariff Act of 1930 on world trade flows in major agricultural products.

The Commission's investigation should examine world trade flows involving major U.S. agricultural products to determine trade patterns, what shifts have taken place, and the reasons for the trade patterns and shifts. The study should examine U.S. and world trade in broad commodity areas (e.g., grains, oil seeds, animal products, fruits, and vegetables).

The Commission's report on this investigation should include, to the extent possible, information with respect to those factors affecting overall agricultural trade, as well as the position of the United States in world agricultural trade. The study should focus on such factors of competition as commodity cycles, wage rates, exchange rates, transportation costs, trade barriers, government targeting practices, and other pertinent factors. The report should further examine the impact of shifts in world agricultural trade on U.S. trade, and the implications of such shifts.

The final report should be transmitted to the Committee on Finance not later than eight months after receipt of this request.

Sincerely,

Bob Dole

BOB DOLE
Chairman

BD:tkk

379391

Appendix B

Notice of Institution of Investigation No. 332-194

petitioner for the countervailing duty order, stating that it withdraws its request for the imposition of countervailing duties under the above-referenced countervailing duty order.

In light of the legislative history of section 704(a) of the Tariff Act of 1930 indicating Congress' expectation that the Commission will permit public comment prior to termination. the Commission requests written comments from persons concerning the proposed termination of the investigation on vitamin K from Spain. These written comments must be filed with the Secretary to the Commission no later than 30 days after publication of this notice in the **Federal Register.**

Issued: September 18. 1984.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 84-25566 Filed 9-25-84; 8:45 am]

BILLING CODE 7020-02-M

[332-194]

World Trade Flows in Major Agricultural Products

AGENCY: International Trade Commission.

ACTION: Institution of an investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1322(g)) for the purpose of gathering and presenting information on world trade flows in major agricultural products.

EFFECTIVE DATE: September 17, 1984.

FOR FURTHER INFORMATION CONTACT: Mr. Lowell C. Grant, principal analyst (telephone 202-724-0099), or Mr. David L. Ingersoll, Chief, Agriculture, Fisheries, and Forest Products Division (telephone 202-724-0068). U.S. International Trade Commission, Washington, D.C. 20436.

Background and Scope of Investigation

At the request of the United States Senate Committee on Finance, the Commission has instituted investigation No. 332-194 under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) for the purpose of examining world trade flows involving major U.S. agricultural products to determine trade patterns, what shifts have taken place, and the reasons for the trade patterns and shifts. The study will also examine U.S. and world trade in broad commodity areas (e.g., grains, oilseeds, animal products, fruits, and vegetables).

The Committee requested that the Commission's report on this investigation should include, to the extent possible, information with respect to those factors affecting overall agricultural trade, as well as the position of the United States in world agricultural trade. The study should focus on such factors of competition as commodity cycles, wage rates, exchange rates, transportation costs, trade barriers, government targeting practices, and other pertinent factors. The report should further examine the impact of shifts in world agricultural trade on U.S. trade, and the implications of such shifts.

Written Submissions

Although there is no public hearing scheduled for this study, interested persons are invited to submit written statements concerning the investigation by October 31, 1984. Commercial or financial information which a submitter desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's *Rules of Practice and Procedures* (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons. All submissions should be addressed to the Secretary at the Commission's office in Washington, D.C.

Issued: September 18, 1984.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 84-25565 Filed 9-25-84; 8:45 am]

BILLING CODE 7020-02-M

INTERSTATE COMMERCE COMMISSION

[Docket No. AB-43 (Sub-No. 125X)]

Rail Carriers, Illinois Central Gulf Railroad Company; Abandonment Exemption; Madison County, TN

AGENCY: Interstate Commerce Commission.

ACTION: Notice of exemption.

SUMMARY: The Interstate Commerce Commission exempts from the requirements of prior approval under 49 U.S.C. 10903 *et seq.*, the abandonment by the Illinois Central Gulf Railroad Company of 6.57 miles of track in Madison County, TN, subject to standard labor protective conditions.

DATES: This exemption shall be effective on October 26, 1984. Petitions for reconsideration must be filed by October 16, 1984. Petitions for stay must be filed by October 9, 1984.

ADDRESSES: Send pleadings referring to Docket No. AB-43 (Sub-No. 125X) to:

(1) Office of the Secretary, Case Control Branch, Interstate Commerce Commission, Washington, DC 20423

(2) Petitioner's representative, Richard M. Kamowski, Esq., 233 N. Michigan Avenue, Chicago, IL 60601

FOR FURTHER INFORMATION CONTACT: Louis E. Gitomer, (202) 275-7245.

SUPPLEMENTARY INFORMATION: Additional information is contained in the Commission's decision. To purchase a copy of the full decision write to T.S. InfoSystems, Inc., Room 2227, Interstate Commerce Commission, Washington, DC 20423, or call 289-4357 (DC Metropolitan area) or toll free (800) 424-5403.

Decided: September 18, 1984.

By the Commission, Chairman Taylor, Vice Chairman Andre, Commissioners Sterrett, Gradison, Simmons, Lamboley and Strenio. Commissioners Lamboley and Strenio did not participate.

James H. Bayne,

Secretary.

[FR Doc. 84-25553 Filed 9-25-84; 8:45 am]

BILLING CODE 7035-01-M

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

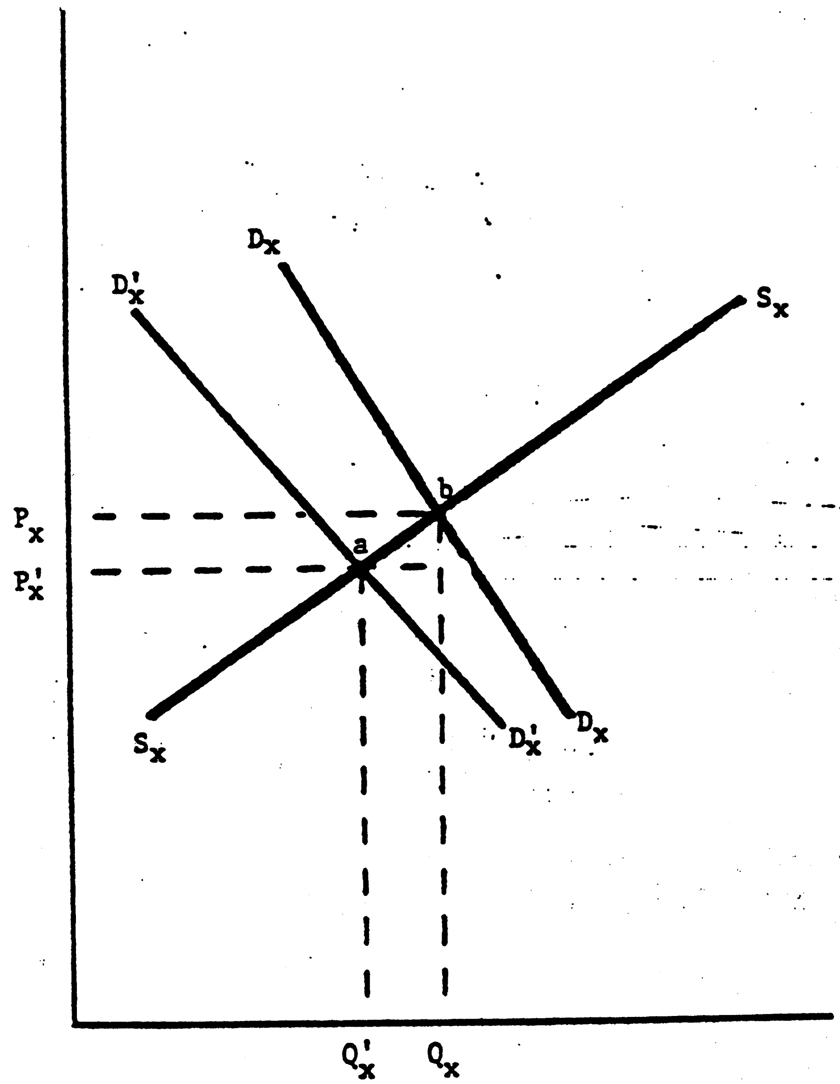
Lambert N. DePompei, M.D.; Revocation of Registration; Denial of Application

On June 22, 1984, the Deputy Assistant Administrator, Office of Diversion Control, Drug Enforcement Administration (DEA) issued to Lambert N. DePompei, M.D. of Detroit Family Practice, 8413 Lake Avenue, Cleveland, Ohio 44102, an Order to Show Cause proposing to revoke Dr. DePompei's DEA Certificate of Registration AD5126873 and to deny his pending application for registration. The Order to Show Cause that was sent by registered mail to Dr. DePompei was returned to DEA unclaimed. However, a copy of the Order to Show Cause was also sent by registered mail to counsel for Dr. DePompei. DEA received the return receipt which indicated that the Order to Show Cause was delivered to and accepted by the lawyers on June 27, 1984. Dr. DePompei failed to respond to the Order to Show Cause within 30 days of its receipt as set forth in the Order to Show Cause. Therefore, Dr. DePompei was deemed to have waived his opportunity for a hearing. 21 CFR 1301.54 (a) and (d). Accordingly, the

Appendix C

Econometric Model--Effect of the Dollar Appreciation on U.S. Agricultural Exports

The world market for U.S. agricultural exports is represented by the world demand schedule (DD) for U.S. agricultural products and by the U.S. supply schedule (SS) of agricultural exports, as illustrated in the following diagram.



The quantity axis represents the quantity of exports, and the price axis represents the dollar price of U.S. exports. Because all curves are drawn in dollar prices, an appreciation of the dollar leaves the supply of exports schedule unaffected but shifts the demand schedule for U.S. exports downward as shown by D'D'. This shift occurs because when the dollar appreciates, it makes U.S. exports more expensive for foreigners to buy. As a result of this shift in demand, the dollar price of exports falls from P to P', and the quantity of exports falls from Q to Q'. The new quantity exported after the dollar appreciation can be calculated by the formula:

$$Q'/Q = (1 + A) \exp[e\ n\ /(e + n)]$$

and the new value of exports P'Q' is

$$P'Q' = PQ\ (1 + A) \exp[-n\ (e + 1)/(e + n)]$$

where e, n, and A are, respectively, the elasticity of demand for U.S. exports, the elasticity of supply of U.S. exports, and the relative appreciation of the U.S. dollar.

The value of each of these parameters was obtained as follows. There are a host of estimates of the elasticity of demand for U.S. agricultural exports in the empirical literature. The estimates, by specific commodities, range from .3 to 2.25. 1/ Both are used, respectively, to provide a lower and upper bound effect of the appreciation of the dollar, and a value of 1 is used to provide a less extreme effect. Markedly fewer estimates of the export price elasticity are available. The value used here is .4, obtained from a U.S. Department of Agriculture study. 2/

The estimate of the relative appreciation of the U.S. dollar was more detailed. First, it is important to note that the competitive position of U.S. exporters of agricultural products is not affected equally by all real-exchange-rate changes relative to the U.S. dollar. For instance, if Niger and Japan reduce their purchases of agricultural products in the same proportion to a given proportionate change in their exchange rates, an appreciation of the U.S. dollar relative to the Niger franc has a relatively minor impact on U.S. exports compared with an appreciation of the U.S. dollar relative to the Japanese yen. In 1981, Niger purchased only 1.7 million dollars' worth of agricultural products from the United States, whereas Japan was the largest market for U.S. agricultural products, purchasing nearly $6.6 billion. Thus, a more meaningful picture of the effect of real-exchange-rate changes on the demand for U.S. agricultural products requires that the exchange-rate change be weighted by the importance of that market, usually the trade share. This trade-weighted average is referred to as the real effective exchange rate. For our analysis, we constructed a real effective exchange rate made up of the

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1/ U.S. Department of Agriculture, "Survey of Literature," unpublished manuscript.

2/ U.S. Department of Agriculture, Economic Research Service, Strong Dollar Dampens Demand for U.S. Farm Exports, Foreign Agricultural Economic Report No. 193 (December 1983).

22 largest market economy importers of U.S. agricultural products. Together, they accounted for nearly 70 percent of total agricultural exports during 1981-83. As shown in the following tabulation, the real effective exchange rate appreciated by 13.9 percent from 1981 to 1982 (in units of foreign currency per U.S. dollar): 1/

Year	Exchange rate
1979	87.35
1980	78.80
1981	100.00
1982	113.90
1983	119.15

A major problem in assessing the impact of the appreciation of the dollar on U.S. agricultural exports is that the dollar appreciated at the same time that the world experienced a downturn in economic activity. It is well documented that the level of foreign economic activity is an important determinant of U.S. exports. Thus, either effect by itself would have reduced U.S. agricultural exports. In order to isolate the effect of the dollar on U.S. agricultural exports, we limit our calculation to the period 1981-83. According to the World Bank World Development Report 1984, this was a period when the decline of gross domestic product (GDP) for industrial market economies and Latin American middle-income oil importers--both representative of U.S. major export markets--was -0.5 and -0.4 percent, respectively. Since this was a period when the change in income was the smallest, it minimizes the effect of the decline in income on the demand for U.S. agricultural products.

We make the simplifying assumption that the decline in exports provided by our estimate is in addition to any effect that the decline in world income would have had on U.S. agricultural exports. This assumption leads to a slight overestimate of the impact of exchange-rate changes, because it ignores the interaction of the fall in income and the exchange-rate effect. This approach is useful, nonetheless, because it permits us to ascertain the maximum effect expected from an appreciation of the U.S. dollar. If our estimate shows that the effect is small relative to the actual decline in U.S. exports in 1983, we can conclude that exchange-rate changes have had little impact on the performance of U.S. agricultural exports abroad. Note also that the use of the above elasticities biases upward the effect of exchange-rate changes on U.S. exports, since these are long-run estimates. The changes in quantities would occur only over a much longer period of time. The results of this analysis are summarized in the following table.

1/ The trade-weighted real exchange rate was calculated using the following formula: Index = 100 exp[sum (wi log(tRi/oRi))]
where tRi is the real exchange rate in country i at time t and oRi the base year real exchange rate. Consumer prices were used to calculate the latter. Wi represents country i's share of U.S. agricultural exports to the largest 22 market economies during 1981.

Effect of 13.9 percent dollar appreciation on U.S. agricultural exports, 1981-82

Actual value of exports in constant 1981 dollars:	
1981	$ 43,336,948,000
1982	36,259,968,000
Reduction	-7,076,980,000
Percentage change	-16.3
High Effect:	n = 2.25, e = 0.4
Reduction	- 6,211,667,000
Percentage change	-14.3
Medium Effect:	n = 1.0, e = 0.4
Reduction	-5,288,706,000
Percentage change	-12.2
Low effect:	n = 0.3, e = 0.4
Reduction	-3,255,437,000
Percentage change	-7.5

Source: U.S. International Trade Commission.

From 1981 to 1982, the trade-weighted dollar appreciated by 13.9 percent. On the basis of the elasticities for the case where foreign buyers are very sensitive to price changes (n = 2.25), the value of U.S. exports declined by 14.3 percent. This accounts for almost 88 percent of the actual decline in the value of U.S. exports. If accurate, this indicates that the increase in the value of the dollar has a significant effect on the competitiveness of U.S. agricultural products. The calculations imply that a 1-percent appreciation of the dollar reduces the value of exports by 1.03 percent. The figures for the low case indicate that export value fell by 7.5 percent and accounted for 46 percent of the actual value decline. The latter implies that a 1-percent appreciation of the dollar reduces the value of agricultural exports by 0.54 percent. The range of these estimates of the reduction in U.S. agricultural exports (between 0.54 to 1.03 percent) appears reasonable.

The above exercise indicates that the appreciation of the dollar has had an important influence on the performance of U.S. agricultural products. 1/

1/ This methodology underestimates the impact of the dollar appreciation on the value of U.S. exports if farm programs have kept the domestic price of agricultural products at the loan rate. See the discussion in the U.S. Department of Agriculture (USDA) study.