United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-1

April 1993

Issues for the 1990's: TRADE

U.S.-Canada Free Trade Agreement: Trade Disputes and Settlement

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Issue. The U.S.-Canada Free Trade Agreement (CFTA) went into effect on January 1, 1989, to reduce barriers and promote trade between the two countries. But, trade disputes for agriculture have continued despite liberalization in tariffs, export subsidies, certain nontariff barriers, and technical regulations. Prominent disputes over the past 3 years have been over U.S. countervailing duties on Canadian pork and hogs, Canadian durum wheat exports to the United States, border meat inspection, and the U.S. Export Enhancement Program (EEP). The CFTA established a Canada-U.S. Commission to resolve trade disputes through a binational dispute settlement panel. The equitable settlement of trade disputes can remove potential impediments to trade.

Context. The agricultural provisions of the CFTA are relatively limited, because both countries preferred to exclude their domestic price support programs and accompanying border measures from a bilateral agreement. The two countries decided to leave the question of domestic agricultural policies having trade-distorting effects to the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). However, both pledged to develop mutually advantageous rules and disciplines on subsidies and dumping, both contentious agricultural issues.

Several agricultural trade disputes have arisen, partly resulting from the relatively limited nature of the CFTA provisions. For example, U.S. producers alleged that Canada used its Western Grain Transportation Act (WGTA) rail subsidy to unfairly export wheat to the United States. The CFTA had removed the WGTA subsidy on westbound, but not eastbound, shipments destined for the United States. The United States has also alleged that Canada has sold durum wheat below the cost of acquisition, a violation of CFTA Article 701.3. This allegation is difficult to confirm since Canada's wheat export monopoly, the Canadian Wheat Board (CWB), does not disclose sale prices.

Canada has complained about U.S. EEP activity in wheat markets where the European Community (EC) is not a significant presence. EEP was designed primarily to counteract EC export subsidies. The CFTA, prohibiting use of bilateral export subsidies, requires that "each Party take into account the export interests of the other Party in the use of any export subsidy on any agricultural good exported to third countries."

At Stake. Agricultural trade between the two countries continues to rise under the CFTA as tariffs decline (see chart). The United States is Canada's largest supplier of agricultural imports. Fruits, vegetables, and other horticultural products account for about half of Canada's agricultural imports from the United States. Other important U.S. exports to Canada include livestock products, grains, oilseeds, and sugar products. Leading Canadian agricultural exports to the United States include livestock products, grains, and oilseeds. The United States has become increasingly important for Canadian agricultural exports, taking over a third of Canada's total agricultural exports in 1990.
Although agricultural trade has expanded, the CFTA has not ended all trade disputes. For example, Canada and the United States had agreed to a 1-year experiment of an open border for meat and poultry starting in February 1990. The experiment would have recognized Canadian meat inspection as equivalent to the U.S. standard. However, the United States delayed implementation and continued to re-inspect Canadian meat imports. Canada then began re-inspecting U.S. meat imports at the border.

In the summer of 1992, the dispute was resolved by instituting new rules on destination reinspection, with the goal of attaining a comprehensive reinspection system based on destination.

Alternatives. The dispute settlement panel has resolved two significant agricultural trade disagreements: U.S. countervailing duties on Canadian pork and Canadian durum wheat pricing. The panel ruled in Canada's favor in both cases and the United States accepted the decisions. The panel, operating bilaterally, was envisioned as being more expedient than a GATT panel; however, the pork case took over 1.5 years. On the other hand, some decisions made by GATT panels, such as the U.S. complaint against Canadian ice cream and yogurt quotas, have never been implemented.

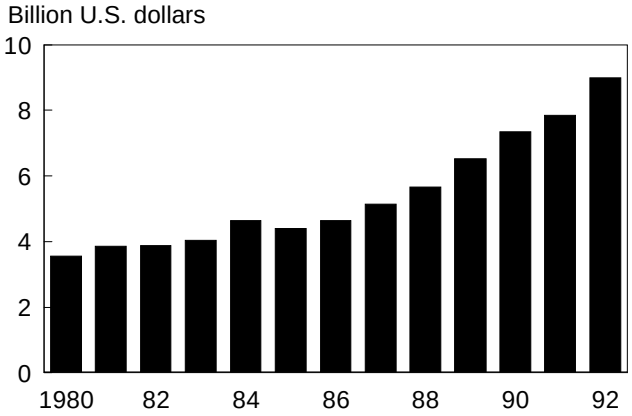
The United States sought to include new provisions in the North American Free Trade Agreement (NAFTA) to address trade-distorting border measures, a major area of dispute. However, Canada was not willing to liberalize its supply-management programs under the NAFTA, and excluded its dairy and poultry sectors from the agreement.

The United States and Canada agreed to develop rules on subsidies and dumping under the CFTA, but these discussions have largely been in abeyance, awaiting a conclusion to the GATT negotiations. Several of the contentious agricultural policies could be made less trade-distorting with a successful GATT outcome. In earlier GATT rounds, agriculture had been primarily excluded, with the exception of tariff reductions. However, agriculture is now the major concern, with reductions being sought in domestic support, market access barriers, and export subsidies. Trade disputes may occur less often under the CFTA with a GATT agreement for agriculture.

Agenda. The GATT agreement, originally scheduled for completion in December 1990, has been delayed because of the intractability of the agricultural negotiations. The dispute settlement panel did rule in favor of Canada in the U.S. complaint on the durum wheat issue, but the CWB is now subject to annual audits to ensure it does not violate CFTA Article 701.3. The first audit will take place by June 1, 1993.

Information Source. C. Goodloe and M. Simone, *A North American Free Trade Area for Agriculture: The Role of Canada and the U.S.-Canada Agreement*, AIB-644, U.S. Dept. Agr., Econ. Res. Serv., Mar. 1992.

U.S.- Canada agricultural trade
Trade expands as tariffs decline.



Source: U.S. Census, Statistics Canada.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-3

April 1993

Issues for the 1990's: TRADE

Economic Realignments Affecting Trade: EC Agreements with EFTA and Eastern Europe

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Issue. The current 12-nation membership of the European Community (EC) will likely expand to as many as 20 members through the recent trade agreements the EC has signed with its European neighbors and the growing list of EC applicants. A larger EC membership, covered by the Common Agricultural Policy (CAP) with its traditionally high farm prices, could substantially displace U.S. food and agricultural exports to Europe and other regions of the world. An agreement in agriculture in the GATT negotiations would substantially reduce the likelihood that an enlarged EC would capture a larger share of world agricultural markets.

EC enlargement will affect other trade issues, including the EC's ban on the production and import of meat derived from animals treated with hormones, the EC's moratorium on allowing the use of bovine somatotropin, and adoption of the EC's single market legislation by new members that will affect plant and animal health and food safety regulations throughout the world.

Context. The EC signed association agreements with Poland, the Czech and Slovak Federal Republic (CSFR), and Hungary that took effect in March 1992. These agreements include concessions on many agricultural commodities and are precursors to the eventual EC membership for these Eastern Europe countries. In May 1992, the EC signed a treaty forming the European Economic Area (EEA) with the seven-member European Free Trade Association (EFTA). However, a Swiss referendum on the EEA in December 1992 failed to ratify the treaty, temporarily excluding Switzerland from the free trade area. The EEA does not significantly affect trade in food and agricultural products, but it could mean that as many as five members of EFTA (Austria, Sweden, Finland, and perhaps Norway and Switzerland) could become EC members by 1995. The remaining EFTA members, Iceland and Liechtenstein, are not likely to apply for EC membership.

The EEA will be the world's largest and most affluent single market when established this year as it provides for the free movement of goods, services, and capital within the area. However, agricultural goods were excepted from the free movement of goods between the EC and EFTA members. Membership in the EC, which requires only that a country be European and have a democratic form of government, will mean lower market support for all of the former EFTA countries; these countries now have even higher farm prices than does the EC. Adoption of the CAP by EFTA countries over a 5-year transition period will likely lead to lower agricultural production levels in these new member states. Dairy could be the most sensitive agricultural sector in the EC-EFTA enlargement negotiations because it is one of the most highly protected sectors in both regions.

The integration of Poland, the CSFR (now two countries), and Hungary into the EC is of much more consequence to agricultural production and trade than the five EFTA candidates. These Eastern Europe countries harvest approximately 34 million acres of grain, compared with less than 10 million acres for the EFTA countries. Their population of 64 million is twice that of the five EFTA candidates. And the agricultural population in the Eastern Europe countries represents 17 percent of their total population but less than 5 percent in EFTA countries. CAP prices are significantly higher than current agricultural prices in Poland, the Czech and Slovak Republics, and Hungary, but lower than prices in

the EFTA countries. Therefore, under the CAP, the Eastern Europe countries will experience much greater productivity compared with EFTA countries, and will likely become net agricultural exporters. EC inclusion of EFTA countries could be completed by 1995 because these countries have already adopted EC legislation and have had free trade with the EC in most nonagricultural goods since 1973. EC integration could be more difficult for Poland, the Czech and Slovak Republics, and Hungary because they will represent a budget drain to the EC due to low value-added tax contributions to the EC budget and high CAP payments to their farmers. Nevertheless, anticipation of entry into the EC has prompted some of these countries to adopt CAP-like policies such as internal price support and a variable levy system. Poland, the Czech and Slovak Republics, and Hungary would be very competitive in the cereal and meat sectors, which would add to current CAP surpluses and even larger EC exports of these commodities.

At Stake. The United States is the largest exporter of food and agricultural products to Europe, exporting $7.6 billion worth, including $6.77 billion to the EC, $0.54 billion to the EFTA countries, and $0.11 billion to Poland, the Czech and Slovak Republics, and Hungary in fiscal 1991. EC enlargement could hurt U.S. agricultural exports to the EC as trade barriers fall between new and old EC member states. Agricultural trade has already expanded significantly between the EC and its European neighbors. U.S. agricultural exports could also suffer if high CAP prices lead to even greater levels of surplus agricultural production in the EC being dumped onto world markets. But the United States could benefit from EC enlargement to include EFTA countries if there is an agreement on agriculture in the General Agreement on Tariffs and Trade (GATT) negotiations. If the Eastern Europe countries become EC members, the United States would likely face less competition from them in world markets under an agreement in the GATT.

Alternatives. U.S. policy responses will depend on the outcome of the negotiations between the EC and the applicant countries and on the outcome of the current GATT negotiations on agriculture. The United States has recourse to multilateral action in the GATT that covers trade damage issues when customs unions are formed or enlarged. The United States consulted bilaterally with the EC when it enlarged in 1973, 1981, and 1986, with some success. The United States could also act unilaterally by adjusting its production, stocks, and trade and targeting markets. However, an agreement on agriculture in the Uruguay Round may require a reliance on binding arbitration within the GATT that could preclude unilateral retaliatory action.

Agenda. The United States will be constantly alert as EC enlargement negotiations proceed and any infringement is perceived on U.S. rights within established treaties and agreements. The GATT already imposes international discipline on the effects on third parties in the formation and enlargement of customs unions. A GATT agreement in agriculture would assure the EC's implementation of CAP reform that would mitigate production increases in the new member states. A GATT agreement on agriculture also provides for improved access of U.S. agricultural exports to the EC market.

Information Sources. Two U.S. Dept. of Agriculture, Economic Research Service, reports: David Kelch, editor, *EC 1992: Implications for World Food and Agricultural Trade*, AGES 9133, Oct. 1991, and Daniel Plunkett, coordinator, *Western Europe Agriculture and Trade Report, RS 4-92*, Dec. 1992. Also see Robert Koopman and others, *European Economic Integration and the Consequences for U.S. Agriculture*, IATRC Working Paper 91-7, Sept. 1991.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-4

April 1993

Issues for the 1990's: TRADE

EC Agricultural Policy Reform

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Issue. The European Community (EC) has adopted a significant reform of its Common Agricultural Policy (CAP) that could help the EC meet commitments called for in the Uruguay Round of negotiations under the General Agreement on Tariffs and Trade (GATT). The reform was spurred by the growth of EC expenditures for agriculture, continued surplus production, and the ongoing agriculture negotiations under the GATT (see chart). Changes in EC agriculture, brought about by CAP reform, could lead to lessening of tensions in the U.S.-EC agricultural trade relationship.

Context. Previous CAP policies increased agricultural output, changing the EC from a net importer to a net exporter of many major commodities. U.S. exports were displaced in EC and third markets. A stalemate between the United States and the EC in the agriculture negotiations had been a factor in preventing a conclusion to the GATT talks. Numerous other agricultural trade disputes, including the oilseeds dispute and the EC's ban on hormone-treated meat, have contributed to tensions in the U.S.-EC relationship. The reform contains changes in the policy mechanisms used to support the grains, oilseeds, protein crops, beef, sheepmeat, and tobacco sectors. These changes will be phased in over 3 years beginning in 1993. For arable crops and beef, producers will be compensated for reductions in support prices through increased direct payments. In addition, new supply control measures designed to reduce output and limit EC budget outlays will be instituted for arable crops, beef, tobacco, and sheepmeat.

Price reductions and supply control measures in the arable crops sectors will reduce production of grains, oilseeds, and protein crops. EC consumption will be encouraged by the lower prices. Lower output and increased domestic use should reduce the EC's supplies available for export. These changes in EC agricultural production, consumption, and trade will affect international and U.S. markets, and the EC's ability to make commitments in the GATT talks.

At Stake. CAP reform has important implications for the U.S.-EC trade relationship because of its impacts on the GATT negotiations. The negotiations aim to reduce internal support to agriculture, reduce subsidized exports, and improve import access. CAP reform will help the EC meet its commitments on reducing internal support. The EC could also meet export subsidy reduction targets for some commodities. A GATT agreement providing solutions to individual disputes and multilateral disciplines on export subsidies would alleviate much of the pressures on the U.S.-EC relationship.

An agreement in the GATT would also impose multilateral disciplines on the EC. The effectiveness of the CAP reform program depends on how it is implemented. Modifications to the reform could result in smaller reductions in internal support and subsidized exports. The EC has not yet determined what penalties will apply to producers who evade the set-aside and other supply control measures. Without sufficient penalties, the effectiveness of the reform could be lessened.

A GATT agreement would require the EC to adopt important agricultural policy changes beyond the scope of CAP reform. Not every agricultural sector is included in the CAP reform: changes in the dairy sector are minor, and no reforms have been implemented for sugar, wine, or fruits and vegetables. These products would be covered by an agriculture agreement in the GATT. CAP reform makes no changes to the highly protective import regime. A GATT agreement would include commitments to improve import access for farm products.

Alternatives. The United States has responded, both unilaterally and in multilateral forums, to market distortions caused by CAP policies. For example, the U.S. Export Enhancement Program was

designed to counteract EC export subsidies in traditional U.S. export markets. At the same time, the United States has actively sought an agreement on farm trade in the current Uruguay Round of the GATT.

Multilateral action: The United States can continue to seek a GATT agreement which would impose multilateral discipline on the EC's implementation of CAP reform, and require the EC to include import access commitments in its agricultural policy reform.

Unilateral action: In addition to or instead of multilateral negotiations in the GATT, countries have used unilateral approaches to resolve trade disputes. For example, Section 301 of the 1974 trade act authorizes the United States to take action against unfair trade practices of other countries. The United States has authority to expand its export subsidy program, as it has through the GATT triggers contained in the 1990 budget reconciliation act. The United States can likewise unilaterally alter its production and/or stockholding behavior to respond to EC production and trade.

Agenda. U.S. policy responses will depend on the outcome of the GATT negotiations, and on EC implementation of CAP reform. Some of the provisions of the reform may be modified to lessen the impact on EC production and exports. A GATT agreement in agriculture would impose international discipline on EC implementation of CAP reform. In addition, a GATT agreement would require the EC to provide improved import access for agricultural products, and to cover all commodities, neither of which CAP reform does.

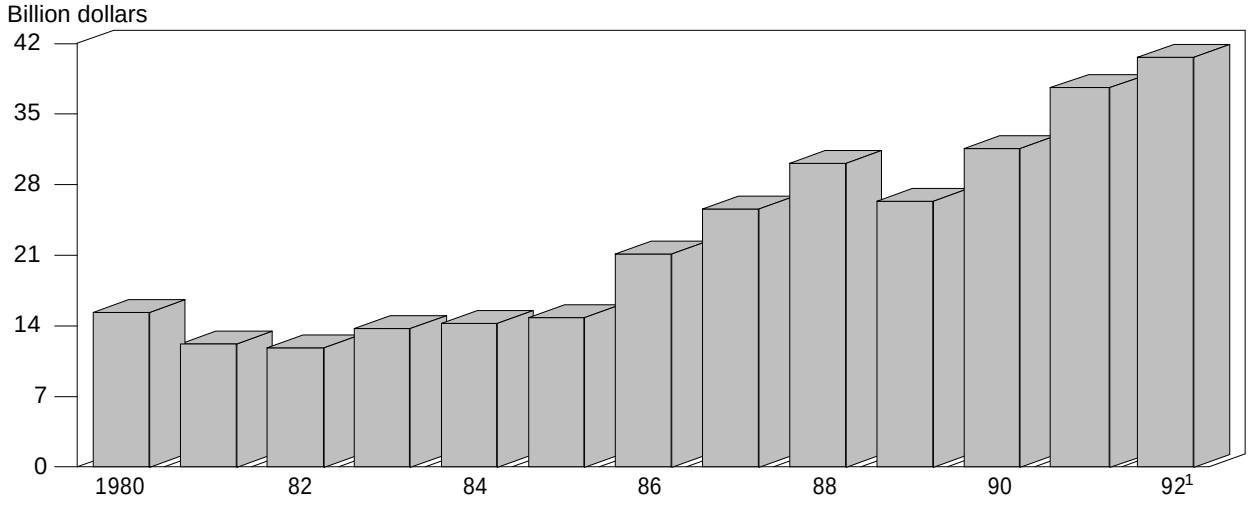
Information Sources. Two U.S. Dept. of Agriculture, Economic Research Service, reports: *Agricultural Outlook*, July 1992, and *Western Europe Agriculture and Trade Report*, Dec. 1992.

Transition to the new Common Agricultural Policy
Prices are lowered and direct payments increased over 3 years.

Policy mechanism	Unit	1991/92	1993/94	1994/95	1995/96
Cereals intervention price	ECU/t	155.0	117.0	108.0	100.0
Cereals payment	do.	NA	25.0	35.0	45.0
Oilseeds payment	do.	162.5	152.0	152.0	152.0
Protein crops payment	do.	NA	65.0	65.0	65.0
Set-aside payment	ECU/ha	Varies by country	207.0	207.0	207.0
Beef intervention price	ECU/t	3,430.0	3,258.5	3,087.0	2,915.5

Payments shown are based on EC average yields. Actual payments will depend on regional yields in each member country.
1 ECU (European Currency Unit) = $1.46. 1 hectare (ha) = 2.471 acres. t = metric ton. NA = not applicable.

EC expenditures on market support
EC agricultural spending increased steadily in the 1980's.



[1] Estimated. Source: EC Commission.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-6

April 1993

Issues for the 1990's: TRADE

Relationships of Agricultural Trade and the Environment

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Issue. Liberalizing international trade and improving environmental quality are important, but sometimes conflicting, societal objectives. The issue is one of compatibility of agricultural trade and environmental objectives because environmental policies and regulations may alter cost structure and competitiveness. Thus, questions arise:

(1) Does freer trade harm the environment?
(2) How does the introduction of environmental policies affect agricultural production, farm income, and competitiveness?
(3) Can policies be designed that meet both agricultural and environmental goals?

Context. World trade and international competitiveness issues are increasingly measured against more recent concerns over the environment. Such environmental issues as water quality, soil productivity, deforestation, and protection of wildlife and biodiversity, as well as food and farmworker safety, are closely related to agricultural production. Policy issues surfacing in the General Agreement on Tariffs and Trade (GATT), the North American free trade talks, and EC-1992 negotiations, for example, suggest that environmental problems related to agriculture may be among the major agricultural trade issues of the 1990's.

At Stake. Links between trade and environment arise in several policy areas. Trade disputes between suppliers and importers increasingly stem from nations' differing standards for environmental and health protection. The United States has found itself on both sides of such issues, as recent trade disputes demonstrate. For example, there have been disagreements with Mexico regarding restrictions on tuna caught in dolphin-populated seas, with the European Community (EC) regarding its import prohibitions on U.S. meat produced with animal growth hormones, and with the EC over its wines containing residues of procymidone, a fungicide unregistered for U.S. use. U.S. concerns with a "circle of poison," the return of nationally banned chemicals in imported foods, also fit this category.

International efforts to integrate economies by liberalizing trade and investment might encourage production to move to where environmental restrictions are most lax, worsening overall environmental quality. Concerns have focused mostly on traditional "smoke stack" industries in the manufacturing sector, but agriculture is also involved. Agribusinesses investing overseas in such operations as slaughter plants and food processing can harm the environment. Also, changing incentives for crop and livestock production through changing trade barriers could worsen the environment, as in groundwater pollution, in some countries or regions while relieving it in others. For example, growing worldwide use of nitrogen fertilizer may generate pressure for regulations on its use patterned after those in the United States and the EC.

National and international efforts to reform agricultural policies, making them less "trade-distorting" and more "market-oriented," are influenced by the possibility that farm income support and environmental objectives can be jointly served. A GATT agreement on agricultural policy reform, for example, would likely give wide leeway to nations providing "internal support" through environmental programs. Assurances will be needed that environmental programs are not used to stifle trade, becoming nontariff barriers.

Alternatives. Policymakers must account for a full range of economic and environmental costs and benefits when considering multiple objectives, such as environmental quality, farm income, international competitiveness, and budgetary costs. Alternatives for addressing environmental and trade problems may be proposed at the national level, but many of these problems extend beyond national borders. Solutions would require agreements binding across enough nations willing to alter domestic policies to achieve change. Unilateral actions by any one country might be helpful, but bilateral, regional, and multilateral efforts will also be required to address problems that cross borders. There are significant difficulties in achieving such agreements, as recent GATT negotiations demonstrate.

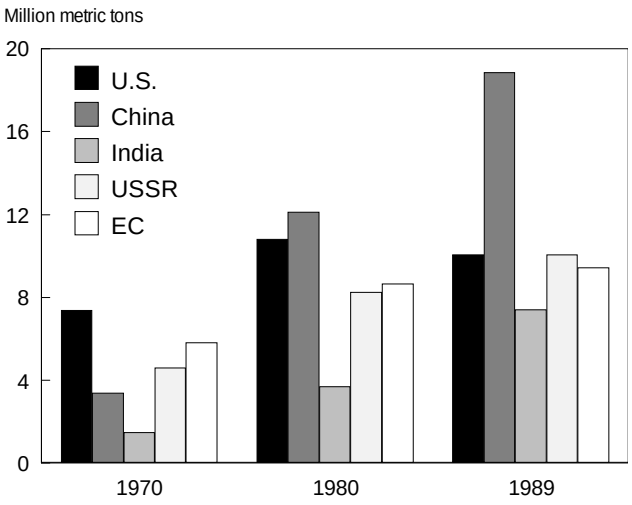
Environmental and trade issues could be addressed generally in the GATT, avoiding the need for specific international environmental agreements. A specific code could help define environmentally acceptable production and processing methods and acceptable trade sanctions. Or, an expanded interpretation of existing articles and codes would give nations the ability to protect the environment and still avoid using them to create nontariff barriers to trade. As another alternative, institutions that provide financing for international economic development, such as the World Bank and the U.S. Agency for International Development, could use more stringent environmental requirements as a condition for their loans.

Domestic agricultural and food policies could be affected directly. Traditional agricultural price and income support payment programs could be altered by requiring specific environmental practices. Or, new programs for environmental protection could be devised. For example, international trade in agriculture depends on reducing the risks of international transfer of pests and diseases, often through border treatments. These include fumigation with methyl bromide, an ozone-depleting chemical that the Environmental Protection Agency has recently proposed to phase out of use by the year 2000. Possible substitutions include nonchemical treatments such as irradiation, temperature manipulation, atmosphere modification, biological control, and pest- and disease-free production areas. Each alternative involves different economic costs that must be weighed against the potential gains from their use.

Agenda. There are two major aspects to the public policy problem, both of which involve analysis and political decisions. First, a determination must be made as to what extent trade contributes to environmental quality, and at what cost and benefit. Second, policies must balance agricultural goals such as food security, income growth, price stabilization, and competitiveness with environmental goals like cleaner water, less soil erosion, and safer food.

Information Sources. Contact authors of this paper.

Nitrogen fertilizer use
Usage levels are off in the United States and EC, but grow rapidly elsewhere.



United States Department of Agriculture

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Agriculture Information Bulletin Number 664-17

April 1993

Issues for the 1990's: TRADE

Economic Realignments Affecting Trade: China

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Issue. Good harvests plus removal of consumer price subsidies on grains and edible oils in China's urban areas have depressed that country's wheat and cotton imports and spurred corn exports. This evolving production, consumption, and trade picture hurts U.S. agricultural exports to China and neighboring markets in the short term as China captures a share of some major U.S. agricultural markets in East Asia. However, China's transformation from a centrally planned to a more market-oriented economy stimulates income growth which bolsters long-term consumer demand for agricultural products. China, with a population of 1.17 billion annually growing at 1.4 percent and an expanding economy, could become a long-term major market for U.S. feed grain and oilseed exports. At issue is the stance the United States will take given adverse shortrun impacts on trade.

Context. U.S.-China trade has grown rapidly in recent years. Total U.S. imports from China increased from $1 billion in 1980 to $26 billion in 1992 (see table). The value of U.S. exports to China rose from $3.8 billion to $7.5 billion over that same period. U.S. agricultural exports to China fluctuated widely, ranging from a high of $2.3 billion in 1980 to a low of $57 million in 1986. Wheat accounted for more than 50 percent of the value of U.S. agricultural exports to China in the 1980's, although cotton exports were nearly 40 percent in the last 3 years.

The Government of China in 1992 largely eliminated direct price subsidies on urban consumption of grains and vegetable oils. The large food grain subsidies since 1955 had resulted in grain consumption of more than 200 kg per capita, accounting for 85 percent of protein intake despite rapid income growth in the 1980's. The increased prices in grain and oil reduce per capita grain consumption (especially rice) and increase meat product demand. Decreasing per capita food grain consumption could significantly reduce the need for grain stocks for food security reasons, making more grain, especially corn, available for export.

In the longer term, stronger meat demand means greater demand for animal feeds such as corn and soybeans. Agricultural trade will reflect how production adjusts to these changes in grain and meat consumption. Continuing a market-oriented agricultural policy would shift production away from China's traditional staples, particularly rice, and toward cash crops like vegetables and aquaculture. ERS projections show that domestic grain supplies will not keep pace with demand. As a result, larger wheat imports in the year 2000 would be required for food use, while corn and soybean imports would be needed to feed expanding livestock herds. Without a major shift in acreage, however, China should have a growing exportable surplus of rice.

The Chinese Government has taken measures to ease import restrictions in recent years in response to two foreign policy objectives: join the General Agreement on Tariffs and Trade (GATT) and ease tensions associated with trade surpluses with trading partners. In the 301 agreement reached in October 1992, China agreed to remove many of its nontariff barriers such as quotas, licensing requirements, high tariffs, and unscientific quarantine measures. However, to prevent too drastic a shift from grains to other crops, the government continues its procurement policy and guarantees negotiated prices for grains to assure a minimum acreage base. The government also continues to limit market access, especially for agricultural products. The government continues to be the sole agent for trade in

grains and essential raw materials. And, to control trade, it still subsidizes export enterprises, controls foreign exchange allocation, and fixes the exchange rate.

At Stake. In the short term, China's economic reforms are likely to have an adverse effect on U.S. agricultural exports to China. This could exacerbate the U.S. overall trade deficit with the country and increase trade tensions. Continued economic reforms would improve the chances of China's becoming a GATT member. Once a GATT member, China would have to gradually open its markets to all member countries and would be technically prohibited from using protective nontariff measures. U.S. agricultural trade would likely benefit.

The key consideration for the United States is how to react to the reforms in the face of shortrun trade problems and yet encourage the economic growth that will be the driving force behind future U.S. agricultural exports to China.

Alternatives. U.S. policies must address not only its short-term economic interests but also the political and regional security issues upon which long-term U.S. and Asian prosperity will depend. China's import demand for agricultural products depends on economic growth which is based in large part on access to the U.S. market. However, China does not offer equal access for U.S. products. This discrepancy in market access partly accounts for the bilateral trade deficit of $18 billion, or more than 20 percent of the total U.S. trade deficit in 1992. The U.S. trade policy choices revolve around the following alternatives:

- Encouraging China's economic reforms while maintaining diplomatic pressure to open markets.
- Denying China access to U.S. markets for selected commodities to encourage opening of China's markets.
- Attaching conditions to the renewal of most favored nation (MFN) status.

Implementation of either of the latter two alternatives could mean a large decline in China's foreign exchange earnings, severely restricting China's ability to import. China might reject any conditions attached to the renewal of MFN status and retaliate by further restricting U.S. access to the China market. Denying China's access to the U.S. market could hurt the more pro-reform, market-oriented coastal areas of South China and help hardliners to re-establish centralized control over these regions.

Agenda. The U.S. response to the issue of China and trade where the shortrun and longrun outcomes appear to diverge will involve both the executive and legislative branches of the U.S. Government. Decisions on GATT and MFN will be important.

Information Source. U.S. Dept. of Agriculture, Economic Research Service, *China Agriculture and Trade Report*.

Value of U.S.-China bilateral trade, 1980-92
Recent economic reforms in China may stall the comeback of wheat and cotton imports.

Item	1980	1982	1984	1985	1986	1987	1988	1989	1990	1991	1992
						Million dollars					
U.S. imports:											
Total	1,042	2,216	3,065	3,863	4,672	6,195	8,510	11,990	15,224	18,976	25,729
Agric.	133	170	191	197	204	237	279	319	271	328	379
U.S. exports:											
Total	3,817	2,911	3,004	3,808	3,077	3,469	5,021	5,755	4,807	6,287	7,470
Agric.	2,277	1,504	613	157	57	362	759	1435	814	722	545
Wheat	1,089	1,054	576	105	0	139	698	1,109	497	363	273
Cotton	701	178	4	2	--	--	25	259	277	319	186

-- less than $0.5 million. Source: U.S. Department of Commerce, Bureau of the Census.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-19

April 1993

Issues for the 1990's: TRADE

Safety Net Policies and Food Security for Low-Income Importing Countries

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Issue. The United States supports the concept of food security for developing countries, as indicated in its GATT (General Agreement on Tariffs and Trade) proposal. If the current round of GATT negotiations successfully liberalizes agricultural policy and trade, then new questions arise about the U.S. role in helping provide a food safety net for low-income importing countries.

Economic problems of particular countries are not easily isolated from the international economy as interdependence grows among nations. In the GATT negotiations, the United States has generally argued for a shift to market-oriented agricultural policies. Some developing countries, mainly those with lower incomes that rely heavily on food imports, may be adversely affected by such reforms and are lobbying for some form of compensation or exemption from the total adoption of any GATT agreement.

Context. Agricultural policy reform has focused on ways to reduce subsidies that distort market prices and trade flows. U.S. policy, as articulated in recent farm legislation, has moved toward greater market orientation; this trend will likely continue. Food aid has played a major role in minimizing the disruptive effect of crop failures in low-income countries. Surplus U.S. Government grain was a major component of that aid, but these surpluses are declining as programs are reformed. If future U.S. aid funding were maintained at current levels and surplus grains were eliminated, the real level of U.S. food aid would decline.

Food imports, especially cereals, have become a significant share of imports of many developing countries, as stagnant domestic production and soaring demand have forced governments to spend an increasing proportion of their scarce foreign exchange on food. It is widely believed that trade and commodity policy reforms benefit the world society and many countries have adopted major policy reforms to increase domestic food availability and improve economic growth during the last decade. However, these reforms produced a perverse short-term effect in many developing countries; domestic price increases associated with these reforms have caused food prices to rise relative to the total income. As a result, low-income food importing countries are concerned that further reforms at home and abroad will result in higher food prices as they remove their own consumer subsidies and as agricultural surpluses in donor countries disappear. If higher and sharply fluctuating prices on world markets are the result of reforms, the ability of low-income countries to provide secure food supplies for their people could be threatened.

For people already close to the subsistence level, price increases can result in more extensive malnutrition. For countries with limited foreign exchange and inadequate food production capacity, a temporary sharp increase in the price of food imports forces them to either reduce food imports and accept increasing hunger or reduce imports of nonfood items, including those necessary for long-term economic growth. Inadequate supplies of food and declining household income could lead to increased political instability and violence within the country.

At Stake. The United States has legitimate interest in facilitating economic improvement in low-income countries. Important factors are humanitarian objectives and the concern that political instability in the developing world could threaten U.S. security. Consumers in low-income countries spend a large portion of their income on food. Thus, unstable and higher prices can result in a large reduction in their real income and food purchases.

Alternatives. A safety net concept suggests that both producers and consumers in low-income countries deserve some protection from external shocks and variability in an unregulated market. One alternative would be for all countries to develop a stocks acquisition and dispersal program to smooth the delivery of grain to the market. This would reduce the impact of yield variability on prices and stabilize the market for both importers and exporters. Other multilateral options include a financial aid facility to support emergency food imports or an import insurance scheme. These might prevent the import bill of developing countries from rising above an established normal level, protecting developing countries from short-term, unexpected, and expensive food imports. The financial aid facility could be associated with a supply buffer program to improve the availability of imports when world production falls. The main existing financial buffer mechanism, the IMF (International Monetary Fund) Compensatory Financing Facilities, finances fluctuations in the costs of cereal imports by developing countries. However, the IMF financing facility is generally contingent on a set of financial and policy gestures by the recipients. A U.S. option is to continue PL-480 (food aid) and the emergency wheat reserve. But the availability of grain and surplus commodities is likely to be lower as producers respond to reduced subsidies and more closely match expected production with expected commercial consumption.

Agenda. Buffer mechanisms, in addition to food aid, help to reduce the financial burden of food imports to low-income countries. However, these mechanisms may become inadequate and unreliable as markets liberalize. No new U.S. legislation directed specifically at this issue has been proposed.

Information Source. Trade data, Food and Agriculture Organization of the United Nations.

Imports of cereals

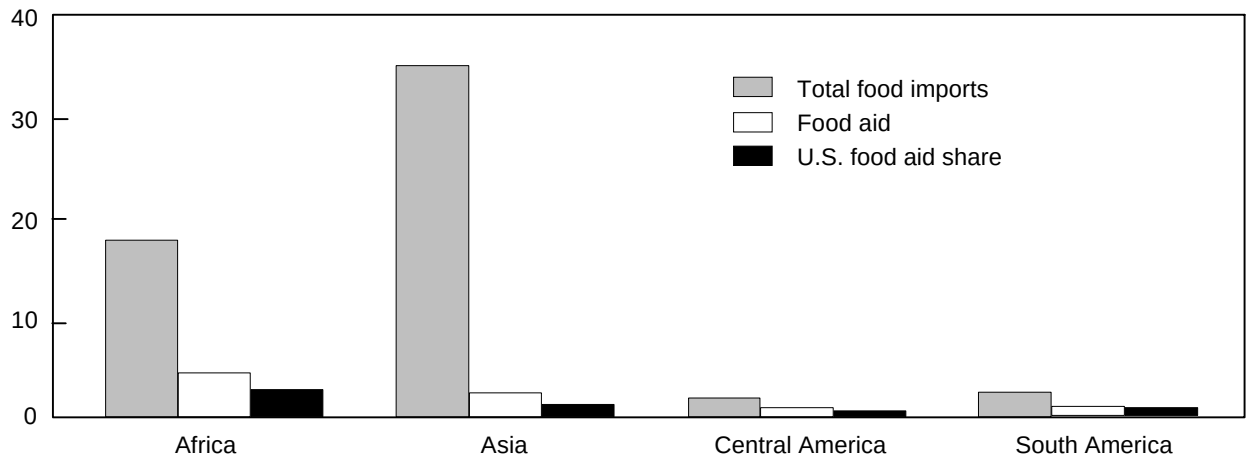
Developing country cereal imports account for a growing share of world imports.

Region	1975	1980	1985	1990
			Million tons	
World	150	207	181	187
Developing countries[1]	60	97	102	119
Low-income countries[2]	33	47	46	56
Africa	12	22	30	28

[1] Includes low-income countries.
[2] Countries with per capita income below U.S. $1,195 in 1990.
Source: Food and Agriculture Organization of the United Nations.

Total food imports, food aid, and U.S. food aid recipient regions, 1990

Africa receives the major portion of food aid.



Source: Food and Agriculture Organization of the United Nations.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-20

April 1993

Issues for the 1990's: TRADE

Enterprise for the Americas Initiative

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Issue. Western Hemisphere countries are seeking trade liberalization that may eventually lead to a hemispheric free trade zone. The Enterprise for the Americas Initiative (EAI), announced on June 27, 1990, is a U.S. program supporting economic and trade reform underway in Latin America and the Caribbean (LAC). Objectives are to promote liberalized trade, reduce official debt, and increase foreign investment in LAC countries. The EAI trade objective indicates a U.S. willingness to consider free trade agreements with LAC countries beyond the recently negotiated North American Free Trade Agreement (NAFTA). Many of these countries are interested in such agreements to help consolidate economic reforms currently in place and expand access to the North American market.

Context. Trade liberalization in the Western Hemisphere, largely unsuccessful in the 1960's, revived in the 1980's, with the EAI giving added focus and direction to ongoing trade and investment liberalization in the 1990's. LAC regional trade agreements are also being renewed, in part to help stabilize institutions, encourage economic reforms, and protect the interests of parties to the agreement as other regional initiatives are being developed.

LAC countries faced economic crises during the 1980's resulting from failed import-substitution policies, excessive foreign debt, movement of assets to foreign countries, and massive inflation. These crises created an incentive to change economic and trade policies. Internal policy reform is needed in the LAC countries to help provide the economic and political stability necessary to fulfill the obligations of potential trade and investment agreements.

The EAI and NAFTA heightened the interest of other Western Hemisphere countries in potential trade agreements with the United States. The United States has signed 15 Trade and Investment Framework Agreements (TIFA's) with LAC countries, either individually or regionally, providing a forum for consultations on trade and investment issues. Only Mexico and Bolivia had signed such agreements prior to the EAI.

At Stake. Economic growth in LAC countries could increase their demand for U.S. exports. Liberalized trade in the Western Hemisphere is a key component in stimulating that economic growth. LAC countries depend on earnings from agricultural and mineral exports to pay for imports.

The United States is a important trading partner for LAC countries (see table). Important agricultural exports from LAC countries to the United States include coffee, cocoa, sugar, fruits, and vegetables. Certain U.S. exports compete with LAC products. Argentina, for example, competes with the United States in cereal grains.

Alternatives. There are several options for pursuing free trade in the Western Hemisphere including: (1) create a comprehensive Western Hemisphere Free Trade Agreement that countries could join, (2) create a network of bilateral agreements among countries within the Western Hemisphere, or (3) create a multilateral core agreement that would be supplemented by bilateral agreements.

A comprehensive free trade agreement, in principle, would eliminate barriers to multilateral trade among countries in the Western Hemisphere. Only those countries willing and able to meet the obligations of

the agreement could become members. Benefits from liberalized trade would accrue to all signatories rather than only to pairs of trading partners with bilateral agreements. This would be a more streamlined approach to free trade than a network of bilateral agreements that would require substantial time and resources from all participants to create and maintain.

Bilateral agreements, however, allow the obligations and provisions of an agreement to be tailored to the specific social and economic conditions of the prospective pair of trading partners. Many Latin American countries, for example, have a dual agricultural economy with a large-farm export sector and a small-farm sector producing food for domestic use. Removing trade measures or trade-distorting domestic measures on certain agricultural commodities produced by the small-farm sector could reduce incomes in that sector and displace rural workers that might not be absorbed elsewhere in the economy. Sensitive commodities may vary among pairs of trading partners.

A multilateral agreement with a comprehensive core applicable to all signatories and supplemented by bilateral agreements may provide the benefits of both of the former alternatives. The bilateral approach for agriculture, plausible in Latin American negotiations, would allow special treatment of agriculture that reflects a country's socioeconomic characteristics of production, or may deal with specific products or groups of products allowing for seasonal variations.

Agenda. The U.S agenda includes ratification of the NAFTA and further liberalization of trade with Western Hemisphere countries. The agendas of prospective partners will have to include controlling budget deficits and inflation, pursuing market-oriented economic policies, developing adequate infrastructure to support investment, and pursuing full membership in the General Agreement on Tariffs and Trade.

Information Source. Kenneth W. Forsythe, Jr. and Liana Neff, *The Enterprise for the Americas Initiative: Support for Western Hemisphere Economic and Trade Reform*, AIB-660, U.S. Dept. Agr., Econ. Res. Serv., Apr. 1993.

U.S. and LAC trade, 1988

The United States is a valuable trading partner for LAC countries, representing more than 35 percent of their total trade.

Item	Total value	Share
	Billion dollars	*Percent*
U.S. agricultural exports	40	To LAC (7)
U.S. agricultural imports	23	From LAC (29)
U.S. nonagricultural exports	282	To LAC (7)
U.S. nonagricultural imports	437	From LAC (5)
LAC agricultural exports	30	To U.S. (22)
LAC agricultural imports	9	From U.S. (32)
LAC nonagricultural exports	49	To U.S. (48)
LAC nonagricultural imports	52	From U.S. (37)

Source: U.S. Dept. Agr., Econ. Res. Serv., *World Agriculture Trends and Indicators, 1970-89*, SB-815, Sept. 1990. LAC does not include the United States, Canada, and Mexico.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-21

April 1993

Issues for the 1990's: TRADE

Food Aid Needs

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Issue. Many poor countries are not financially able to import food when facing production shortfalls. The United States has shown a clear interest in providing food aid. But, current budget constraints and declining commodity surpluses raise the issue of how best to distribute available food aid and reduce poverty and hunger in low-income countries.

Context. Food aid was first provided to low-income countries in the 1950's when the United States faced pressure to dispose of accumulating grain surpluses. Food aid became a desirable policy choice for producers and exporters because stockpiled commodities had depressed markets, reducing prices and eroding the value of stored commodities. Surpluses have since been reduced, and most food commodities are no longer treated as if they were free goods for relieving hunger. But, the exporting countries continue to supply food aid, even when commodities are not in surplus.

The United States, the European Community (EC), Canada, Japan, and Australia are the major food aid donors, contributing nearly 12.5 million tons of cereal food aid in 1992/93 (July/June) (see table). The United States is the largest contributor, providing 57 percent of cereal aid in 1991/92, followed by the EC with 25 percent and Canada with 8 percent. The U.S. food aid program is a combination of grants and concessional sales. The EC and Canada provide all their food aid as grants. Food aid provided through multinational channels, such as the World Food Program (WFP), rose from 14 percent of the total in 1970 to 25 percent in 1990. Food aid has saved many lives during emergencies that result from production shortfalls and conflicts. The average annual volume of 12 million tons is less than half of the projected amount needed to meet minimum nutritional standards and about two-thirds of that required to maintain normal food consumption (see figure).

The major food aid donors are high-income food exporting countries, with limited participation by others. Food aid donors cite humanitarian relief as their basic distribution criteria, yet economic and political factors weigh heavily in allocation decisions. In some cases, food is given to needy people or to support development projects in countries with adequate supplies, while food shortages persist in the neediest countries. The commodity mix usually reflects the export profile of the donor and tends to vary with yearly fluctuations in availability. Aid allocations are often linked to historical ties between individual donors and recipients. As a consequence, the patterns of supply and distribution are suboptimal if measured only by a food needs criterion.

At Stake. Millions of people are hungry in a world that can produce enough food, but where budgets, surpluses, and political will are inadequate to meet the need. About 20 percent of the developing world's population suffer from food shortages. In Sub-Saharan Africa per capita food availability has declined, leaving many people vulnerable. While the number of people suffering from undernutrition in the developing world declined by 20 percent between 1970 and 1990, the number of undernourished Africans increased by 70 percent, from 100 million to 170 million. However, most undernourished people are in the Asia and Pacific region, numbering 528 million in 1990.

Alternatives. U.S. policy alternatives include relying primarily on bilateral agreements between the United States and the recipient country, or increasing food aid distributions through international institutions such as the WFP. Bilateral programs permit donors to include political and economic

objectives—longstanding aims of U.S. food aid legislation—as well as needs criteria in food aid allocations. They also generate support for food aid budgets from interest groups in donor countries. The growing role of international donors has reduced the role of politics in distribution by using needs criteria as a basis for food aid allocations. Multilateral mechanisms can encourage longer term commitments and include all developed countries, both food exporters and importers. Countries without food surpluses can be encouraged to donate cash that can be used to provide a more balanced commodity mix and reduce the dependence on surpluses available from the current donors. Multilateral food aid is distributed on a grant basis and therefore will not increase the debt burden of developing countries. Coordination through multilateral organizations has the potential to improve standardization and evaluation of efforts, reduce duplication, and cut administrative costs.

Volume of cereal food aid contributions
The United States is by far the largest food aid donor.

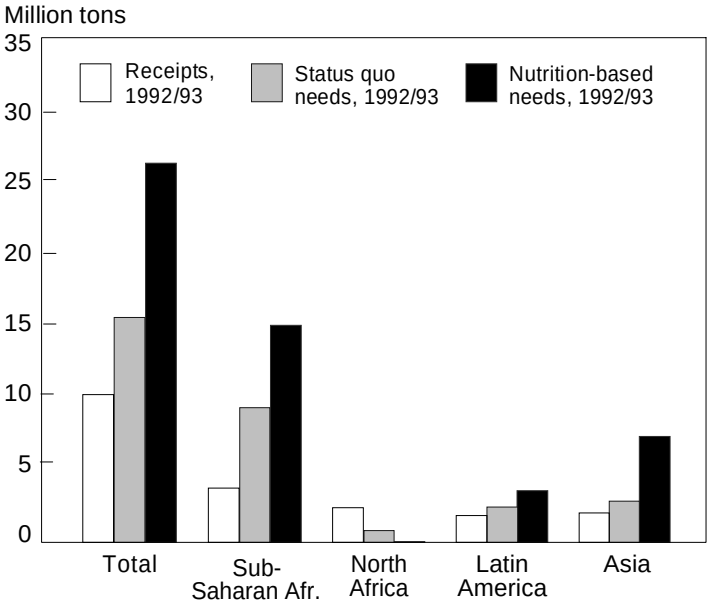
Country/region	1988/89	1989/90	1990/91	1991/92	1992/93
			Million tons		
Australia	0.4	0.3	0.3	0.3	0.3
Canada	1.2	1.0	1.1	1.0	1.0
European Community	2.2	3.3	2.6	3.1	3.3
Japan	.4	.4	.5	.3	.4
United States	5.3	6.0	6.9	7.0	7.5
Others	.8	.3	.5	.5	.5
Total	10.2	11.3	12.0	12.4	12.9

Note: July/June years. 1992/93 is estimated.
Sources: Food and Agriculture Organization of the United Nations and Economic Research Service.

Agenda. U.S. food aid budgets are proposed by the Executive Branch and approved by the Congress. The United States and other developed countries support long-term economic growth in low-income countries to stimulate trade and expand overseas markets for developed countries' products. Food aid is expected to continue to play a crucial role in alleviating shortages associated with emergencies and providing financial support for low-income countries. The level of support for U.S. food aid, however, will likely be tempered by the budget deficit and availability of surplus commodities.

Information Source. U.S. Dept. of Agriculture, Economic Research Service, *Global Food Assessment Situation and Outlook Report*, GFA-3, Nov. 1992 (annual).

Food aid received 1991/92 and food aid needs 1992/93
Needs outstrip food received, except in North Africa.



Note: 1991/92 data are actual food aid received by 60 developing countries. 1992/93 data are estimated needs based on historical consumption patterns (status quo) and on a minimum caloric requirement (nutrition-based).

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-22

April 1993

Issues for the 1990's: TRADE

Trade Agreements: Liberalizing Multilateral and Regional Trade

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Issue. In 1993, Congress may vote on approving multilateral and regional trade agreements to reduce global or regional trade barriers. Proponents of these agreements stress their longrun positive effects on economic growth and employment; opponents cite sectoral adjustment costs and shortrun job losses. There is disagreement, even among those who favor trade agreements, on whether regional preferential arrangements are building blocks or stumbling blocks to further liberalizing global trade. Trading rules in these agreements will affect U.S. agricultural interests and influence farm income.

Context. Barriers to agricultural trade have multiplied since agriculture's exemption from the General Agreement on Tariffs and Trade (GATT) in 1955. Most barriers are not direct border measures, such as tariffs used to generate public revenues. Rather, they are nontariff barriers, such as domestic production subsidies used by industrialized countries to support rural incomes or by third world governments to achieve food self-sufficiency goals. As a result, while world consumption of grains and oilseeds increased by 400 million tons over the past decade, trade increased by only 29 million tons.

The United States advocates liberalized agricultural trade and has pursued this objective through multilateral negotiations (the current Uruguay Round of GATT) and regional groups (North American Free Trade Agreement (NAFTA) and the Enterprise for the Americas Initiative (EAI)). The U.S. goal in the Uruguay Round agricultural negotiations is to secure explicit commitments to reduce export subsidies and domestic support, and to improve market access for agricultural products so that countries will increasingly export commodities in which they have a comparative advantage. The United States hopes to achieve both economic and political objectives by liberalizing regional agricultural trade. Access to U.S. markets by EAI nations depends on their explicit commitment to sound fiscal and monetary policies and democratically elected governments. The U.S. position is that such commitments will increase regional prosperity and stability as well as trade flows.

At Stake. For decades, policymakers around the world had assumed that agricultural output was relatively unresponsive to price signals. They therefore concluded that trade-distorting agricultural policies caused only small efficiency losses. Subsequent research, however, has shown that trade-distorting policies do affect resource allocation decisions in the agricultural sector, producing large efficiency losses and constantly increasing costs for consumers and taxpayers. The total outlay from developed-country taxpayers and consumers on agricultural subsidies has been estimated at about $250 billion per year.

Policymakers and economists agree that a global multilateral agreement would produce the largest gains by means of both supply and demand effects. The efficiency gains resulting from numerous GATT signatories reducing domestic support and export subsidies and increasing market access would be substantial, as countries resume producing and exporting commodities most suited to their soil, topography, and climate. A GATT accord would also provide benefits to agricultural markets by expanding worldwide economic growth, thus spurring demand for food and agricultural products. A GATT agreement could inject $2 trillion into the world economy over a 10-year period, according to some economic estimates. Both U.S. agricultural exports and farm income are expected to rise with a GATT accord.

Regional trade arrangements also may spur trade and growth. Economic growth resulting from the further integration of the European Community through the 1992 Single Market Initiative could be as high as 33 percent. A NAFTA may spur less economic growth than European integration, but should increase exports of U.S. agricultural goods, especially grains and meat products. In addition, NAFTA and the EAI signal a U.S. effort to establish new political and economic cooperation with Latin American nations. The agreements encourage domestic economic reform in many Latin American countries, lock in the process of trade liberalization, and secure U.S. access to growing Latin American markets.

Alternatives. The United States has four alternatives: (1) sign no trade treaty, (2) negotiate only a multilateral agreement, (3) negotiate only regional agreements, or (4) pursue its current course of negotiating both multilateral and regional agreements. Opponents of trade agreements claim that treaties constrain a sovereign country's right to determine industrial, labor, and environmental policies and create costly adjustment problems. The most outspoken opponents are usually groups that seek to maximize the welfare of their members rather than the general welfare of a country.

Advocates of the second option point out that a multilateral trade agreement produces global welfare gains and protects democratically elected governments from pressure to alter trading rules by groups who seek shelter from competition. Trade reform, like any change in a free market system (changes in the business cycle, climate conditions, or demographics, for example), will alter input and commodity prices and consequently cause an adjustment in resource use. Some producers of highly protected commodities may lose income, but governments are still free to provide nondistortionary compensation to those who have lost income.

Proponents of regional accords find pragmatic arguments compelling. They argue that a smaller number of countries can agree on more significant reductions in trade barriers more quickly than in the global multilateral arena. They also point out that if a country trades more with its neighbors than with countries in other regions, a regional trade pact will likely create more intraregional trade than divert inter-regional trade.

The United States is pursuing the fourth option to capitalize on the best features of multilateral and regional agreements. U.S. policymakers continue to pursue agricultural trade reform in multilateral negotiations in the current Uruguay Round. The United States has just concluded negotiating an agreement with Mexico and Canada that would eliminate most trade barriers over the next 15 years. Additional regional trade pacts that the United States may negotiate with other Western Hemisphere countries will almost certainly create more trade—including agricultural trade—than they divert. These regional agreements do not diminish the U.S. commitment to the multilateral process. In fact, many provisions of the NAFTA and EAI are directly tied to the outcome of the Uruguay Round.

Agenda. The timetable for trade agreements negotiated under the current fast track authority granted by Congress is: (1) the President must notify Congress 90 calendar days in advance of signing a trade treaty, (2) any signed trade treaty must be submitted to Congress by June 1, 1993, and (3) Congress must then vote on the agreement, without amendments, within 90 session days. The President may ask Congress to extend the current fast track authority in order to (1) conclude negotiating side agreements to NAFTA on import surges, labor, and the environment, and (2) conclude GATT negotiations.

Since the EAI was proposed, the United States has established bilateral trade and investment councils with most Western Hemisphere countries. These councils meet periodically to identify and remove impediments to trade and investment flows between parties. No specific goal or timetable has been established for them.

Information Sources. Paul Krugman, "The Move Toward Free Trade Zones," *Economic Review of the Federal Reserve Bank of Kansas City*, Nov./Dec. 1991; International Agricultural Trade Research Consortium, "Reviving the GATT Negotiations on Agriculture," Commissioned Paper No. 8, Mar. 1991; and Dennis T. Avery, "Farmers Face Their Biggest Test Ever," *Wall Street Journal*, Nov. 9, 1992.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-23

June 1993

Issues for the 1990's: TRADE

Economic Realignments Affecting Trade: Republics of the Former Soviet Union

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Issue. Republics of the former Soviet Union began 1992 committed in varying degrees to economic reform. Successful reform means that market forces, not political decisionmaking, would mainly drive economic activity, eliminating inefficient policies and subsidies. Restructuring the republics' economies would change their production and trade of agricultural and other goods, with repercussions for international trade. U.S. agricultural exports to the republics would be affected.

Context. The former Soviet Union has been a large importer of grain and, to a lesser degree, soybean products since the early 1970's. The United States has been a main supplier. The Soviet leadership decided that the most direct way to improve the standard of living was to increase production and consumption of meat and other livestock products. Large grain imports were deemed necessary, not because domestic output had fallen, but because the rapid growth in livestock herds substantially raised domestic feed requirements. The Soviets succeeded in raising meat and other livestock output, but at a high cost, according to Economic Research Service analysts. The cost of meat production at the margin is very high, relative both to costs of domestically producing other foodstuffs and to world market prices for meat. Heavy subsidies to livestock producers have been necessary to support an uneconomically large growth in output.

At Stake. Export markets for U.S. agricultural products are at stake. Successful economic reform would likely change the volume and mix of Western (including U.S.) agricultural exports to the republics. U.S. exports of grain to the republics could fall, while exports of soybeans and soybean meal, certain meats such as poultry, and processing machinery could rise.

Successful economic reform in the republics should eliminate costly subsidies and distorted prices that have supported artificially high levels of production and consumption of livestock products. High-cost producers would have to cut back. Such already occurs in Russia, one of the fastest reforming republics. This republic could reduce its livestock herds by about 20 percent during 1992-94, say Russian sources. Smaller herd size will reduce need for feed grain and, thereby, the need for Western grain imports. Wheat imports in particular should drop. Perverse pricing policies have resulted in much of Soviet wheat output being inefficiently used as feed, contributing to the need to import wheat for food. Though corn imports would probably also fall, they should remain significant. Another effect of inefficient Soviet pricing policies is that Soviet mixed feed has suffered from a chronic deficiency of protein (which oilseeds provide). Reform could well mean that the republics increase soybean and soybean meal imports, at the expense of total grain imports.

As part of reform, consumers in the republics might change their meat consumption by substituting poultry for more expensive beef and pork. Increased imports of poultry could result. In addition, the inefficiency and backwardness of food storage and processing in the former USSR suggest a potential for exports of Western food processing machinery and technology to the republics, as well. On balance, certain U.S. agricultural interests might lose from reform in the new republics, but other agricultural interests might benefit.

Alternatives. Three alternatives can be identified for U.S. policy toward the republics' reform efforts: (1) opposition, because U.S. economic interests are perceived as being threatened, (2) neutrality, and (3) support. Arguments for support are that successful economic reform will make the republics more politically stable, more amenable to Western-style market capitalism (and perhaps also to Western political institutions), and richer. Through increased wealth and trade, the republics can then enrich the world. Losses suffered by specific economic interests in the United States need to be considered in light of the large benefits both to the republics and to the West as a whole.

Support does not necessarily require large aid programs, but rather policies that consistently promote the republics' economic restructuring (including their trade) along more rational economic lines. Any changes in the republics' structure of production and trade as a result of reform will be an inherent part of reform. Resisting the changes involves resisting reform.

The U.S. Government has actively promoted grain exports to the former Soviet Union during the past few years, with both good and bad effects perceived. Credit guarantees (GSM-102) and the Export Enhancement Program were the main instruments, both of which have lowered the real cost to the republics of importing U.S. agricultural goods. One can argue that subsidized U.S. agricultural exports have helped the republics during shortrun disruptions in the food economy. Also, these policies were adopted largely to counter export promotion by trade competitors, such as the European Community. Yet, some in the republics argue that big grain imports have not been necessary, have undercut domestic producers, and have contributed to the former Soviet Union's large hard currency debt.

Agenda. During the past 3 years, the United States has extended to the former USSR and its successor states around $5.5 billion in guaranteed credits to purchase U.S. agricultural goods, the bulk being grain. The credit guarantees dominate what is perceived as the U.S. financial effort to support reform in the new republics. Since the effectiveness of Western support for reform depends in part on how well it is coordinated, U.S. food export policies should be consistent with the overall reform assistance of the U.S. Government and international financial institutions.

Information Sources. Overview: U.S. Dept. of Agriculture, Economic Research Service, *Former USSR Agriculture and Trade Report*, RS-92-1, May 1992. ERS research on which this paper is partly based: W. Liefert, R. Koopman, and E. Cook, *Agricultural Trade Liberalization in the Republics of the Former USSR* (contact Liefert for review copy). Also: D.G. Johnson, "Possible Impacts of Agricultural Trade Liberalization on the USSR," *Comparative Economic Studies*, Vol. 32, No. 2, and S.R. Johnson and A.A. Nikonov, "Soviet Agrarian Reform and the Food Crisis: Neither Can be Ignored," *Choices*, 4th Quarter, 1991.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-41

May 1993

Issues for the 1990's: TRADE

Humanitarian Aid Needs

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Issue. International food aid needs are expected to grow in the 1990's. Emergency needs have increased as a result of natural disasters such as the drought in southern Africa and continuing civil war in Liberia, Bosnia, and Somalia. Global political and economic changes, such as the fall of the communist system, are increasing demands on food aid availabilities. The United States has changed its domestic agricultural policies and no longer has large food stocks. How can the United States provide food aid at a time of growing needs?

Context. The United States provides international food aid through Public Law 480, (first enacted in 1954), also known as the Food for Peace program. In addition, assistance is provided through two other food aid programs: Section 416(b) of the Agricultural Act of 1949 as amended and the Food for Progress program. Title I of P.L. 480 finances sales of agricultural commodities under long-term concessional credit arrangements to developing countries with insufficient foreign exchange. Title II grants food commodities for distribution overseas by private voluntary organizations (PVO's), by international organizations, and, in the case of emergencies, by recipient governments. Title III grants food assistance to support development programs in least developed countries through government-to-government agreements. The Section 416(b) program provides a mechanism for donating excess commodities owned by U.S. Department of Agriculture's (USDA) Commodity Credit Corporation to help meet urgent food needs in other countries. The Food for Progress program allows USDA to donate food to support countries that are trying to introduce or expand free enterprise in their agricultural economies.

The United States provided substantial P.L. 480 shipments to India in the mid-1960's, assistance to relieve the recurring famines in Ethiopia and Sudan in the mid-1980's, and shipments to alleviate the worst drought of the century affecting the southern African countries in the early 1990's (see table). In the past, the United States was able to help meet these needs mainly through the sale or donation of government-owned stocks of commodities (mostly wheat) that were in need (see figure). Current U.S. policy tries to establish more of a balance between supply and demand, resulting in lower government stocks.

At Stake. Since 1974, P.L. 480 food aid has accounted for 5 percent or less of the value of total U.S. agricultural exports. As a result, the effects of P.L. 480 on exports are relatively slight, although for some commodities, such as soybean oil, food aid shipments account for a large share of exports. The ultimate beneficiaries of U.S. food aid are recipients. Even so, P.L. 480 shipments tend to boost U.S. farm prices, enhancing income for U.S. producers and lowering government deficiency payments. Exporters, processors, and the PVO's who distribute the commodities also benefit. Shipments of commodities under the food aid programs also benefit the U.S. maritime fleet since cargo preference provisions require that 75 percent of U.S. concessional shipments be on U.S. flag vessels. U.S. taxpayers pay the cost of the commodities, their processing, and most of the transportation. U.S. consumers are not likely to be greatly affected because P.L. 480 accounts for such a small share of total use. Producers in the recipient country may suffer if food aid shipments depress internal farm prices, but food aid law requires program decisionmakers to avoid programming in which the assistance results in substantial disincentives to production or marketing in recipient countries.

Alternatives. Some alternatives to the present programs include:

(1) Increase the food aid budget. This will maintain the volume of food aid provided when prices rise.

(2) Create a food fund reserve. The United States already has the 4-million-ton Food Security Wheat Reserve for use in meeting emergency humanitarian needs in developing countries. The reserve has been used when domestic supplies limited P.L. 480 availabilities. An alternative would be to hold funds in reserve to meet emergency needs.

(3) Change the mix of commodities to provide more bulk rather than processed commodities. This would enable the food aid budget to cover a larger volume of food by shifting the costs of processing to the recipient country. This would reduce U.S. employment in the processing sector, but raise it in the recipient country. It would also reduce the market development potential of food aid programming for value-added commodities, which are the most rapidly growing segment of U.S. agricultural exports.

(4) Eliminate the provision of commodities and provide cash assistance instead. This would not necessarily benefit U.S. agriculture but would perhaps enable recipient countries to obtain the maximum volume of desired commodities from the closest and cheapest sources. It would require significant revision of existing food aid legislation. The United States may have difficulty ensuring that such cash assistance would be used as food aid.

Agenda. If the GATT negotiations include food aid, then conclusion of the Uruguay Round trade negotiations may require changes in U.S. food aid policy. Food aid is part of the farm legislation that is renewed every 5 years. Appropriations committees annually approve the P.L. 480 budget, which is included in the USDA annual budget submission from the President to Congress. Tentative country allocations are included in the annual budget submission; others are made during the fiscal year after requests are received.

Information Sources. National Research Council, "Food Aid Projections for the Decade of the 1990's," report of an ad hoc panel meeting held on October 6 and 7, 1988; U.S. Dept. of Agriculture, Economic Research Service, *Global Food Assessment*, Situation and Outlook Report, GFA-3, Nov. 1992.

U.S. food aid shipments by destination[1]

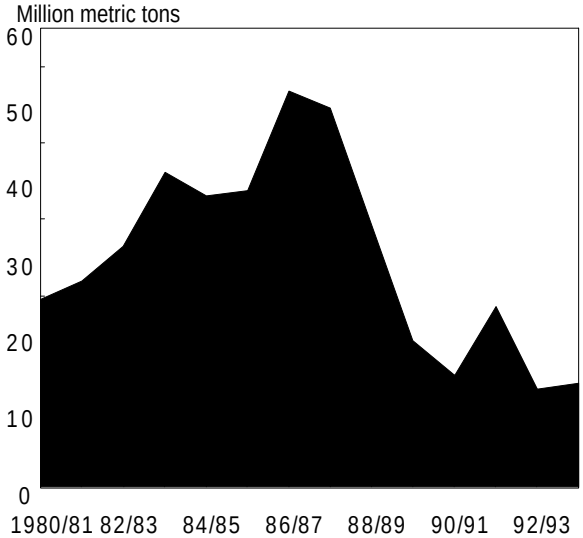
Food aid shipments in Latin America and Europe increased; however, Asia and Africa still receive over 70 percent of total.

Region	1968-70	1978-80	1988-90
	Million dollars		
Latin America	460	378	947
Europe	203	106	155
Asia	2,696	2,060	1,363
Africa	294	1,935	1,625

[1] Food aid includes PL 480 and Section 416(b); 1968-70 and 1978-80 also include shipments under the Commodity Import Program managed by the Agency for International Development.

U.S. wheat stocks

U.S. wheat stocks in the 1990's are likely to be much lower than in the 1980's.



United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-43

May 1993

Issues for the 1990's: TRADE

Cotton Textile and Apparel Imports

Sam Evans (202) 219-0840

Issue. Rapid growth in U.S. imports of textiles and apparel during the past decade intensified cotton industry concerns that imports reduce demand for U.S cotton and incomes of cotton growers. Further, there is concern that imports reduce output and employment in textile and apparel industries. The domestic textile industry is the largest user of U.S. cotton.

As rapidly as imports grew in the 1980's, some argue that the rate of increase would have been steeper without the U.S. quotas on imports of textiles and apparel. Thus, tensions over imports rose as it became clear that trade liberalization in textiles and apparel was a high priority in the Uruguay Round negotiations of the General Agreement on Tariffs and Trade (GATT).

Context. As world cotton production expanded in the 1980's, textiles and apparel output rose in developing countries and the newly industrialized countries of Korea, Taiwan, and Hong Kong. Many developing countries have an advantage in textile and apparel production, especially labor-intensive apparel, because they have an abundant supply of low-cost labor. Government policies in some developing countries subsidize textile and apparel producers by ensuring them a reliable supply of competitively priced cotton. China, India, and Pakistan, for example, have successfully pursued a course of simultaneously expanding cotton production and exports of textiles and apparel.

Textile and apparel manufacturers in the United States and other developed countries are facing increased competition from low-cost foreign suppliers, even with quota protection provided through the Multifiber Arrangement (MFA). The MFA governs much of the world's trade in textiles and apparel by providing a framework for negotiating bilateral agreements (quotas) to regulate imports made from cotton, wool, manmade, and certain other fibers. The United States limits imports through bilateral agreements with more than 40 countries. A major goal of the Uruguay Round is phasing out the MFA.

U.S. imports of cotton textiles and apparel tripled during the past decade, and this growth has continued in the 1990's. In 1992, estimated imports accounted for 46 percent of U.S. retail consumption of cotton. The U.S. deficit in cotton textile and apparel trade in 1992 was a record, the equivalent of 4.9 million bales (480 pounds each) of raw cotton. A decade earlier, the deficit was the equivalent of one-half million bales.

At Stake. The economic well-being of U.S. consumers, textile and apparel manufacturers, and cotton producers would be affected by liberalization of world textile and apparel trade. If liberalization proceeds, U.S. consumers would benefit through lower domestic prices for textiles and apparel. However, U.S. output and employment in the labor-intensive apparel sector would continue to decline. There is considerable disagreement over effects of trade liberalization on the capital-intensive U.S. textile industry. Since domestic textile mills are the biggest users of U.S. cotton, analysts also disagree over the effects of trade liberalization on U.S. cotton growers.

Alternatives. One alternative is to maintain the MFA and quotas. Proponents of this alternative point to the record of the 1980's. They say if quotas were lifted, the U.S. market would be overwhelmed by imports, and cotton growers would lose a significant share of their biggest market, the

U.S. textile industry. The bottom line for those favoring quotas is the view that imports of cotton textiles and apparel substitute for U.S.-grown cotton at a high rate, if not pound-for-pound. As a result, they believe freer trade would significantly damage the U.S. textile and apparel sectors and cotton producers.

Another alternative is to promote freer trade. Proponents of freer trade view the tradeoff between cotton textiles and apparel imports and U.S. cotton as being far less than pound-for-pound. They point to the positive link between U.S. exports of raw cotton and imports of textiles and apparel: imports contain about 20 percent U.S. cotton on average. They believe that imports reduce consumer prices and expand the domestic market for cotton products, citing market growth and the doubling of U.S. retail consumption of cotton since 1980 as evidence. They also expect growth in textile exports to accelerate as U.S. mills gain greater access to foreign markets. In addition, they argue that the simultaneous liberalization of raw cotton trade and textile and apparel trade will result in larger total demand (exports plus domestic mill use) for U.S. cotton and stronger prices for growers.

Regional free trade agreements are another alternative. Under the North American Free Trade Agreement (NAFTA), the United States, Mexico, and Canada would phase out quotas and other barriers to trade among the three countries. MFA quotas on imports from outside North America could be maintained. Proponents of a NAFTA contend the agreement would benefit textile makers and cotton producers in the United States. The rules-of-origin agreed to by the United States and Mexico give preferential treatment to textiles and apparel made of yarn and fabric produced in North America. Opponents say that while U.S. textile mills and cotton producers might benefit from a NAFTA, labor-intensive apparel jobs would move to Mexico where labor costs are lower.

Agenda. The Uruguay Round of GATT negotiations has been underway for 6 years, and the outcome of the talks is still uncertain. Arthur Dunkel, Director General of the GATT, released the text of a proposed agreement, including textiles and apparel, at the end of 1991. The Dunkel text provides for the phaseout of MFA quotas over 10 years. The U.S. cotton industry and major textile and apparel manufacturing groups generally oppose the Dunkel text. There is less industry opposition to a NAFTA.

Information Source. U.S. Dept. of Agriculture, Economic Research Service, *The Cotton and Wool Situation and Outlook Report*, various issues.

U.S. trade in cotton textiles and apparel, domestic mill use, and retail consumption
Growing retail consumption partly offsets rise in imports.

Item	1980	1990	1991	1992
		Mil. 480-lb. bales		
Textile and apparel trade:[1]				
Imports	1.7	5.0	5.4	6.7
Exports	1.1	1.4	1.5	1.8
Deficit	.6	3.6	3.9	4.9
Mill use	5.7	8.6	9.1	9.7
Retail consumption:[2]	6.3	12.2	13.0	14.6

[1]Raw cotton equivalent. [2]Mill use plus deficit in textile and apparel trade.

United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-47

July 1993

Issues for the 1990's: TRADE

Supply Variability and Grain Stocks Policies in a Global Market

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Issue. U.S. and world agricultural and trade policy reform will likely result in fewer market-distorting subsidies, cut crop production, and reduce grain stocks. But, reduced production and stock levels may result in greater price and supply variability in developed and developing countries.

Context. Price enhancement policies are being dismantled, trade barriers are being reduced, and efforts are underway to further reduce them. These changes have made protection of domestic agriculture and nationalistic self-sufficiency goals difficult to justify and costly to pursue. U.S. policy has pursued a market-oriented approach since 1985. This approach became apparent with the revision of nonrecourse loan rates now determined by formula as a percentage of a moving average price. Thus, in most years, the loan rate will be below the world price. Therefore, the rates now provide a flexible price safety net, rather than a fixed floor supporting price, and make the United States more responsive to market signals. The United States could accumulate large stocks again, but only if world prices were to fall significantly below U.S. loan rates. Such a development is less frequently expected because of the market-based formula for loan rates, the discretionary authority of the Secretary of Agriculture to reduce loan rates, and the provision of marketing loans that allow loan repayment at less than the loan rate. U.S. stocks are thus expected to average well below historical levels. Domestic and world markets are expected to be more susceptible to yield changes because of the closer relationship of consumption and farmers' expected production and the reduced size of government reserves.

The United States produces and sells a large share of the grain moving in the world market. Shocks such as yield variability, which may originate in the United States, likely contribute to domestic and world supply and price variability. As a result, yield variability could be a reason to intervene in the domestic market, if the intervention did not raise prices above longrun market-clearing prices or result in subsidies that caused the longrun income prospects for grain producers, domestically or internationally, to rise above normally expected income under market-oriented conditions.

At Stake. Reduction of market-distorting subsidies is generally considered beneficial to the global society; some believe freer trade will increase price stability. However, the Food and Agriculture Organization of the United Nations, the Organization for Economic Cooperation and Development, and others are concerned that unregulated free markets would leave the farm sector and consumers in all countries susceptible to increased risk from fluctuating yields. Developing countries are concerned about the potential for generally tighter markets and the effects of yield reductions that could drive prices higher, hurting their ability to import food. Food security is a primary concern in developing countries when rising prices prevent the very poor from obtaining food. And, political stability of governments becomes a problem in countries facing short food supplies, as consumers in those countries demand action by governments to bring about adequate supplies of food and stability in food prices. Potentially large price fluctuations hold important implications for consumers and producers in developing countries and for grain and livestock producers in the developed economies. Grain market volatility tends to exacerbate cycles in livestock production and adds to income uncertainty.

Alternatives. At question is whether some safety-net policies may be needed to prevent yield shocks from destabilizing production, prices, and consumption. Such policies would need to allow market prices to signal that a change in resource use was needed and thus alter the level of output, while reducing the market's reaction to short-term shocks. Past attempts to provide for market stability and developing-country food security objectives have taken several forms. These have included target stock levels that would meet food needs in most but not all years, a proportional buffer stock that

accomplished the same objective, price-triggered stock acquisition and dispersal programs to defend a particular price band, and quantity-triggered purchase and distribution rules based on total production. During the 1970's, some of these were suggested for use on both a unilateral and multilateral basis.

The major problem with proposed or implemented programs was that annual production, regardless of the cause of the production level, was allowed to enter the stocks program. Thus, more than just the effects of yield shocks entered the storage program. And, the programs were used to raise prices rather than remove the market-destabilizing effect of only the yield shock. Programs tended to rely on excess capacity generated by subsidies to gather supplies into government stocks. While such alternatives could be reconsidered, they appear to be impractical when applied alongside policies designed to let prices signal the need for changes in resource use, production, and consumption.

Rules for prior unilateral stock accumulation programs and supply stabilization schemes probably overcompensated for yield shocks. Actual wheat stocks reached far greater levels than would accumulate under a yield-shock-only program (see figure). Keeping in mind that yield shocks are not the result of economic planning, we see that a market-oriented alternative might permit a stocks program that dealt only with the yield. If managed by a crop yield change rule, rather than a price rule, and implemented on a unilateral or multilateral basis, such a program could provide minimal interference with the function of prices in guiding the use of resources and stabilize the market for food and feed grains. Market prices and production could be free to respond to longer term real changes in demand without supply distortions.

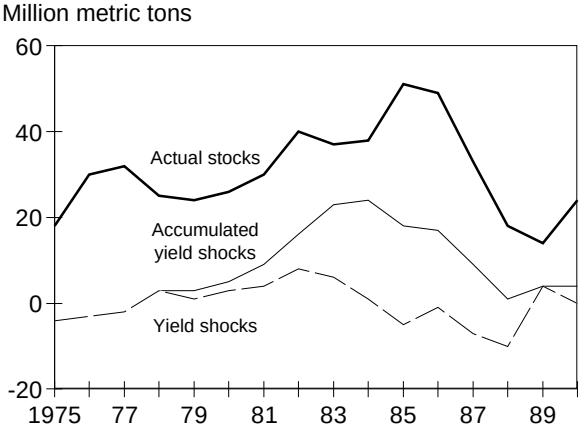
An alternative could be a global free market that would allow the market to allocate between consumption and stocks. Producers and consumers could place greater reliance on futures markets as a means for reducing the effects of price variability in a free market setting. However, in some countries, food security becomes such a large issue that governments feel compelled to hold stocks. There is continuing support for market-oriented policies that allow prices to signal the need for more or fewer resources to produce specific commodities. But, how to achieve market orientation and meet concerns of developing countries about stable food supplies remain at issue.

Agenda. Review of the objectives of current stocks programs and evaluation of unilateral or multilateral alternatives to the nonrecourse loan would have a high priority for both the domestic and developing-country markets as countries reduce trade barriers. Although the United States is a major player, this issue will also be addressed by other countries and organizations.

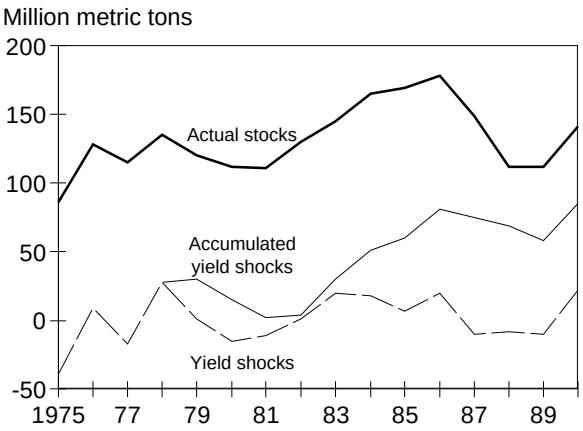
Information Source. Robert D. Reinsel, *Managing Food Security in Unregulated Markets*, Westview Press, Boulder, CO., Jan. 1993.

Wheat stocks and potential stocks given yield deviations

U.S.: *Historical stocks exceeded those produced by yield shocks only.*



World: *Yield shocks worldwide also accumulate to less than actual stocks.*



United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-62

August 1993

Issues for the 1990's: TRADE

Agricultural Export Assistance and High-Value Product Exports

Stephen A. MacDonald

Mark E. Smith

Issue. At issue is whether Federal assistance for agricultural exports should be targeted to high-value product (HVP) exports. Such exports may offer more opportunities for employment and income than traditional bulk exports such as grain. The United States provides an array of tools to boost agricultural exports, including programs to help U.S. exporters compete in terms of price (such as the Export Enhancement Program, or EEP), to influence consumer tastes and preferences abroad (such as the Market Promotion Program, or MPP), to help foreign importers obtain credit to purchase U.S. commodities (the export credit guarantee programs), and to provide U.S. farm products as food aid. Except for the MPP, these programs primarily assist bulk exports.

Context. HVP's have accounted for much of the growth in world trade in the last decade, and prospects remain stronger for HVP's than for bulk. HVP's now comprise 80 percent of world agricultural trade and include intermediate products (flour, livestock feed, and animal byproducts used as inputs for further processing); consumer-oriented products, both processed (chiefly meat and dairy products) and unprocessed (fresh fruits and vegetables); and other products, including breeding stock, seeds, and tobacco products.

Other countries have pursued strategies emphasizing value-added exports. For example, during 1986-90, the European Community spent an annual average of $10 billion each year in agricultural export subsidies, of which 69 percent were for HVP's. In contrast, the HVP share for most U.S. agricultural export programs was substantially less (see table). U.S. agricultural export assistance has traditionally emphasized bulk commodities, reflecting the focus of domestic support programs and the trading environment for commodities such as grains, oilseeds, and cotton. The costs of U.S. domestic farm programs can vary with export demand, so managing domestic programs has caused the U.S. Government's interest and role in overseas marketing of bulk products to be quite different than that for HVP's. Thus, only the relatively small Market Promotion Program has emphasized HVP's.

The Omnibus Budget Reconciliation Act of 1990 requires the Secretary of Agriculture to consider boosting funding for commercial export programs since a General Agreement on Tariffs and Trade (GATT) agreement on agriculture did not enter into force by June 30, 1993. Export subsidies may have to be reduced if a GATT agreement is reached. Each case would require addressing the mix between assistance for bulk products and HVP's.

At Stake. The distribution of Federal benefits differs depending on whether bulk or HVP exports receive assistance. Greater exports, both bulk and HVP, benefit producers, processors, shippers, handlers, and exporters. Input suppliers realize indirect benefits. However, Economic Research Service (ERS) research shows that farm producers capture only 20 percent of the benefit from HVP exports, compared with 38 percent from bulk exports. A greater share of benefits from U.S. Department of Agriculture (USDA) spending accrues to those outside the production sector when HVP exports are assisted. The government, which pays the cost of export assistance, realizes some offsetting savings when certain bulk commodities are assisted. For example, if greater exports boost wheat prices by one penny per bushel, government spending on deficiency payments to producers can be reduced by $15-20 million.

Alternatives.

(1) Maintain current practices. The current policy mix for commodity export assistance has helped both bulk and HVP exports. U.S. HVP exports have climbed 98 percent since the mid-1980's, boosted by U.S. macroeconomic policies, USDA-sponsored market promotion, and bilateral arrangements such as the U.S.-Japan Beef and Citrus Agreement. At the same time, bulk exports have benefited from lower loan rates, U.S. macroeconomic policies, and USDA export assistance. USDA determines export assistance levels for individual commodities under each export program, with flexibility to respond to changes in the trading environment.

(2) Expand export assistance for HVP's. HVP exports may benefit the overall economy more than bulk exports. Depending on resource availability, ERS research has shown that $1.00 of HVP exports stimulates another $1.63 in direct and indirect supporting activities, compared with $1.08 from bulk commodities. However, with limited government resources, increased expenditures for HVP's could reduce assistance for bulk products, perhaps lowering farm prices for some bulk commodities and raising related costs under domestic farm support programs. Further, because some HVP's are branded products, taxpayer expenditures would benefit stockholders of participating corporations. Questions may then arise as to why no assistance is made for other manufactured goods. HVP promotion is operationally more complicated than that for bulk commodities.

(3) Reduce expenditures for HVP exports. Targeting assistance to bulk commodities will focus benefits on producers and may also increase farm prices and achieve taxpayer savings under domestic farm support programs. While bulk commodity exports may generate less economic activity, the cost of EEP bonuses is much less for bulk commodities than for HVP's. For example, the average 1992 bonus for wheat ($41 per ton, product weight) was less than half that of flour.

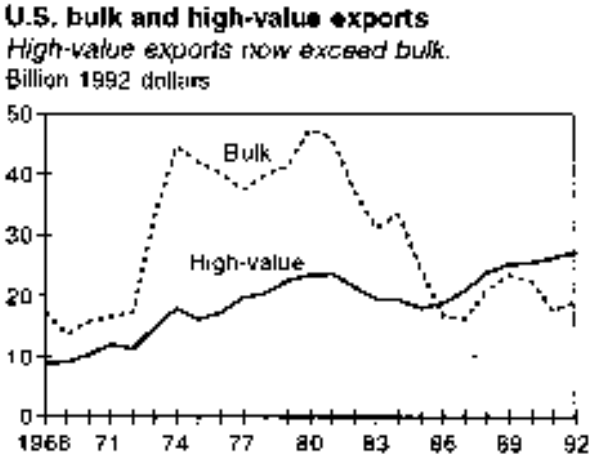
Agenda. Various legislative proposals have addressed the level of export assistance for HVP's. Pending the outcome of the GATT negotiations, the level and implementation of export subsidies may change. The U.S. Secretary of Agriculture has the authority to decide the amount of assistance for specific commodities under specific programs.

Information Sources. Two U.S. Department of Agriculture, Economic Research Service, reports: Gerald Schluter and William Edmonson, *Exporting Processed Instead of Raw Agricultural Products*, Staff Report AGES 89-58, Nov. 1989, and *High-Value Agricultural Exports: U.S. Opportunities in the 1980's*, FAER-188, Sept. 1983.

Share of U.S. Government farm export assistance to HVP's
Most export programs assist bulk products.

Program	1989	1990	1991
		Percent	
Price assistance*	16	16	13
Export credit guarantees	30	24	24
Market Promotion Program	76	72	79
Food aid	38	36	37

*Includes assistance under the Export Enhancement Program, the Cottonseed Oil and Sunflowerseed Oil Assistance Programs, and the Dairy Export Incentive Program.



United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-67

September 1993

Issues for the 1990's: TRADE

Grain Cleanliness in the World Market

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Issue. With limited information on which to base separation of fact from opinions, there are several viewpoints on grain cleaning: (1) the United States is losing its competitive position in world grain markets because of cleanliness problems, (2) the cleanliness of U.S. grains could be improved by changing the U.S. grain grades and standards, (3) current grading standards work well and altering regulations on grain cleanliness will increase marketing costs, reduce profits, and diminish U.S. competitiveness, and (4) cleanliness is not as important as intrinsic quality characteristics in importers' grain buying decisionmaking and better information on the end-use characteristics of U.S. grains would enhance U.S. quality competitiveness.

Context. The United States has maintained strong competitiveness in the world coarse grain market, as indicated by world corn trade market shares (see figure). In contrast, the U.S. share of world trade in soybeans and wheat has declined. Foreign buyers sometimes perceive a cleanliness problem with U.S. wheat because it has a higher average dockage level than wheat from Canada and Australia (see figure). In soybeans, the perceived cleanliness problem relates to the amount of foreign material present in U.S. beans. The average foreign material content of U.S. No. 2 soybeans exported since 1985 has ranged from 1.6 to 1.8 percent, slightly below the 2-percent maximum for grade No. 2.

At Stake. The United States faces increasing competition for wheat and soybean markets from other exporting nations. It is possible that the U.S. market share could be adversely affected by the cleanliness issue. The 1990 farm act directed the U.S. Department of Agriculture to study the costs and benefits of cleaning grain for export markets. The Economic Research Service, in cooperation with the Federal Grain Inspection Service, is conducting such studies for wheat, corn, soybeans, sorghum, and barley. The recently completed study on wheat found that price, not dockage content, was the most important criterion of the import purchasing decision made by many foreign buyers. Buyers in most importing countries regard intrinsic characteristics (especially protein quality, protein quantity, and sprout damage), test weight, and moisture content to be more important than physical cleanliness. The study indicates that exporting cleaner wheat would require mechanical cleaning to meet competitors' cleanliness levels and that tighter standards would produce a net economic loss. Costs of cleaning all export wheat would likely exceed the domestic and international benefits by at least $8 million. However, the industry may benefit from cleaning a sufficient quantity of wheat to meet the demands of buyers in cleanliness-conscious niche markets.

Alternatives. Alternatives for addressing wheat cleanliness and other grain quality issues include:

(1) Continue the current U.S. grain grades and standards without modification. This approach relies on contract specifications to facilitate transactions between U.S. exporters and foreign buyers. Contract specifications to control dockage content would require payment of compensating premiums to offset added cleaning costs. Foreign buyers could specify cleaner wheat and negotiate the requirements and the price in the contract.

(2) Change U.S. grain grades and standards to promote cleanliness. Different grade limits for dockage at each U.S. grade could be set, with U.S. No. 1 being the "clean wheat" grade meeting the cleanliness standards of containing dockage not to exceed, for example, 0.3 percent. Foreign buyers could then

pay a higher price for wheat grading U.S. No. 1. Tightening cleanliness standards for all wheat to satisfy a limited number of cleanliness-conscious niche markets may be unwarranted.

(3) Change U.S. grain grades and standards to include important intrinsic characteristics. Even though cleanliness may be an important quality criterion for some foreign buyers, it is not very important for most. Thus, advocates argue that U.S. wheat standards should include additional intrinsic quality factors to enhance U.S. quality competitiveness. The feasibility of changing the standards depends upon development of rapid, economical tests to measure important intrinsic characteristics.

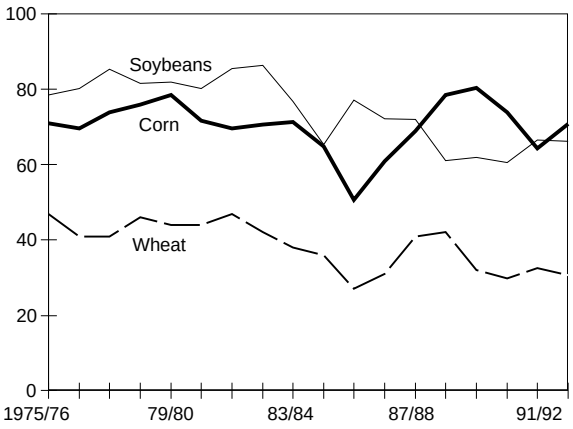
(4) Use mechanical cleaning selectively for niche markets. Cleaning wheat for special markets could benefit the U.S. wheat industry if buyers in these niche markets were willing to pay a premium for clean wheat and if the costs of segregating clean wheat throughout the marketing system were minimal. Buyers in seven markets indicated a willingness to pay premiums for cleaner U.S. wheat. About 6 million metric tons would need to be cleaned to satisfy the demands of those buyers, and the net gains from cleaning wheat for those targeted markets were estimated to total $8-$10 million.

(5) Accelerate implementation of a market (outreach) program. Another alternative would be to accelerate implementation of a market information program that (1) conveys essential quality characteristics desired by end users to domestic producers, plant breeders, handlers, and exporters, and (2) familiarizes foreign buyers with the quality characteristics of U.S. wheat classes and varieties. This program would address the difficulties encountered by foreign buyers in obtaining information on the end-use characteristics of U.S. wheat.

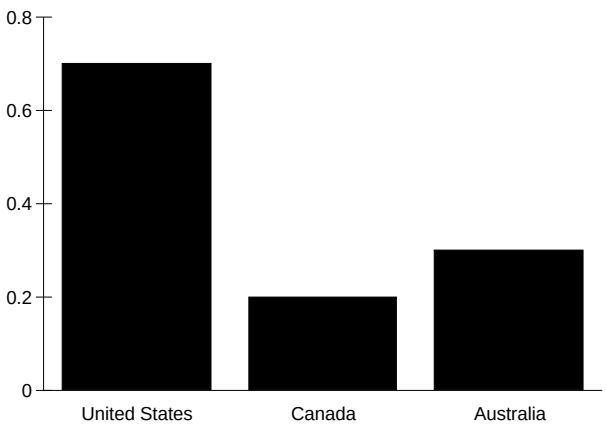
Agenda. The USDA grain cleaning studies will be transmitted to Congress to help in deliberations, possibly in the 1995 farm bill debate, about the cleanliness of U.S. grains and its relationship to competitiveness in the world market.

Information Sources. U.S. Dept. of Agriculture, Federal Grain Inspection Service, *U.S. Grain Exports: Quality Report*, annual. Contact the authors about forthcoming U.S. Dept. of Agriculture, Economic Research Service, reports on the costs and benefits of cleaning wheat, corn, barley, sorghum, and soybeans.

U.S. market share of world trade
Soybean and wheat shares have declined, but the corn share has rebounded.
Percent



Average dockage content of wheat exports
U.S. dockage level is more than the Canadian and Australian levels combined.
Percent



United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-68

November 1993

Issues for the 1990's: TRADE

Trade Competitiveness of U.S. Agriculture

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Issue. A stated aim of the Clinton Administration is to promote U.S. trade competitiveness in a more open international trading environment. The issue for U.S. agriculture is how the sector can increase its longrun competitiveness in world markets and contribute to real growth of the national economy without incurring excessive adjustment costs.

Context. The United States is the world's leading agricultural exporter, averaging 17 percent of the global market for agricultural goods during the past three decades. The U.S. share reached 20 percent in 1981. Modern technology and abundant natural resources relative to the size of the domestic population largely explain U.S. dominance. Currently, the United States has three times as much arable and permanent cropland per capita as the rest of the world. This resource advantage is increasing. Since 1970, cropland per capita in the rest of the world has declined 1.6 times faster than in the United States. Advances have also resulted from more rapid gains in U.S. productivity of major types of farm inputs (agricultural machinery, chemicals, and labor) compared with the rest of the world.

The detailed trade record shows that the United States has an advantage in many but not all subsectors. U.S. advantages exist in coarse grains, wheat, soybeans, and many high-value commodities. The United States imports rubber, coffee, tea, cocoa beans, raw silk, bananas, and various spices and vegetable fibers because they are not grown domestically. These products are imported because they are not grown domestically. The United States also imports rice, cotton, and assorted meat and livestock products that compete with home-grown production.

At Stake. The competitiveness of U.S. agriculture and the sector's ability to contribute to national income and domestic environmental protection are at stake. The structure of U.S. and world agriculture will undoubtedly be altered as a result of foreign economic development, changes in the rules of international trade, shifts in domestic policy, and new developments in technology. The United States stands to benefit from increased demand for grains and oilseeds in the developing countries and from emerging markets for processed and convenience foods in developed countries. Economic development in countries in Central Europe and the former Soviet Union may eventually generate competition for U.S. farmers in some bulk commodities, but create opportunities for domestic producers of high-value, processed commodities.

The rules of international trade, in the midst of change, will affect U.S. competitiveness in agriculture. The Uruguay Round of the General Agreement on Tariffs and Trade (GATT) aims at liberalizing global agricultural markets. The current round has launched a process whereby agricultural subsidies are likely to be successively reduced in future years. Bilateral trade arrangements, such as the proposed North American Free Trade Agreement, may also shape the structure of world agriculture. On the domestic front, recent U.S. farm legislation has attempted to render domestic agriculture more competitive in global markets by tying loan rates to longrun movements in world prices.

Discovery and commercialization of industrial uses for existing and new agricultural products offers another way to expand U.S. agricultural markets abroad. Such industrial uses also create domestic employment in industries manufacturing value-added commodities. The demand for research-based, environmentally benign products derived from agriculture is large, especially if global markets remain open and patent protection is provided. Cornstarch derivatives can be used as a raw material in the manufacture of biodegradable plastics and water-absorbing materials. Biotechnology research has identified ways that a variety of plants and animals can be used to provide modern medicine with high-value drugs and biochemicals. The Clean Air Act of 1990 has increased the demand for oxygenates, such as corn-based ethanol.

Alternatives. A major determinant of future U.S. competitiveness will be policies for U.S. agriculture that promote domestic economic efficiency, economic growth abroad, new developments in technology, and open international markets. Depression-era farm legislation attempted to protect farmer income through commodity price-support and land set-aside programs. One upshot of these programs was that they rendered U.S. agriculture less competitive in world markets. Within the last decade, U.S. farm policy has shifted toward a more open-market orientation. The 1985 farm act effectively lowered loan rates and target prices and froze payment yields. The 1990 farm act and the 1990 budget reconciliation act required loan rates to correspond even more closely to world market prices, and its triple-base provision increased farmer decisionmaking flexibility concerning product mix. U.S. agriculture that is market-oriented can exploit its natural competitiveness and take advantage of economic opportunities. During the 1960's, for example, handsome payoffs were realized when domestic resources moved into soybean production in response to expanding international market opportunitites.

The use of foreign development assistance is controversial. Over three-fourths of the world's population resides in developing countries. People in these countries have a high propensity to spend increased income on agricultural commodities the United States exports, making developing countries an expanding market for U.S. agriculture. Some believe that the United States should not assist these countries to improve their productive capacity in agriculture because it conflicts with the U.S. comparative advantage in agriculture. Others argue otherwise because growth in labor-intensive agriculture is the primary means for developing countries to increase their incomes.

There is less controversy about the role of the U.S. Government in supporting domestic education, scientific research, primary infrastructure, and other areas where the private sector underinvests. A well-trained labor force in agriculture is necessary to retain competitiveness in world agricultural markets. The returns to public education is very high, with benefits extending beyond the individual producer to society as a whole. Government funding for basic and applied agricultural research helps keep the United States at the cutting edge of modern technology. Scientific inquiry generates nonrival inputs, such as technological instructions, that can be accumulated at relative little costs, enhancing the productivity of innovative American farmers. Finally, improvements in the transportation and communication infrastructure are vital because marketing, just as efficient production, is an important component of U.S. trade competitiveness in agriculture.

Agenda. A principal aim of government is to create an environment that encourages needed resource adjustments without creating lasting market distortions. In today's increasingly dynamic and interdependent global market, policy impacts permeate throughout the U.S. agricultural sector and the domestic economy. It is important that policymakers take a longterm perspective and evaluate how programs, designed to achieve specific objectives, affect the overall domestic economy and trade competitiveness of U.S. agriculture. Government interventions that enable the market to function more efficiently can easily be justified. Preserving the status quo may induce economic loss if it thwarts efficient operation of the market. Movement toward productive markets engenders more rapid economic growth, added employment, and increased commodity trade.

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United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 664-69

February 1994

Issues for the 1990's: TRADE

Private and Public Financing of Agricultural Research and Development

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Issue. The public agricultural research system must face the demands of an expanding constituency, which includes not only farmers, but also input suppliers, food processors, distributors, and environmental and consumer advocacy groups. It must meet these demands while operating within its current fiscal constraints. But how and to what extent should public institutions coordinate research efforts with the private sector?

Context. Research expenditures by the U.S. Department of Agriculture (USDA) have declined relative to those of the private sector and State agricultural experiment stations (SAES) (see figure). USDA research expenditures have remained about the same, while private industry investment has risen. Private industry invests over $3 billion annually in food and agricultural research and development (R&D), more than the Federal Government and SAES combined. The public sector allocates about 40 percent of its agricultural research funding to basic research in agricultural sciences, while the private sector invests less than 10 percent of its funding in basic research.

At Stake. The U.S. public agricultural research system remains the largest in the world, but other countries are closing the R&D funding gap (see table). Continued technical progress in the food and agriculture sector is a contributing factor towards limiting increases in food prices, maintaining the international competitiveness of U.S. agriculture, protecting the environment, and guaranteeing a safe food supply. Future U.S. comparative advantage in agricultural production will depend less on our abundant natural resource base and more on our abilities make productive public and private investments in innovation. A lag of several years exists between beginning research projects and the adoption of new technologies. The future availability of agricultural technologies depends on research policy decisions made today.

Numerous studies have found a relatively high rate of return on investment in public agricultural R&D. Because the private sector measures the profitability of innovations rather than their benefits to society, the private sector tends to underinvest in basic agricultural research. The private sector also has less incentive to conduct research in areas that are not directly profit-oriented, such as rural development, food safety, or environmental protection.

The longrun beneficiaries of agricultural R&D are consumers, who gain through lower food prices. Early adopter farmers benefit from technical change in the short run through falling per unit production costs. These early benefits may be eroded as widespread adoption leads to more production and falling output prices in the long run. Individual SAES concentrate a greater proportion of their research on farm-level cost reductions than USDA. USDA has increasingly emphasized research to expand demand for agricultural commodities. USDA also plays a central role in defining research issues of national priority such as global climate change or foreign market development, which individual State governments may be less willing to fund.

Alternatives. Possible research policy options are to:

(1) Conduct a national needs assessment to define national research priorities and determine the appropriate level of public investment. Such an assessment would also examine the division of research effort between private industry, USDA, and SAES.

(2) Provide greater incentives for private firms to invest in R&D. Incentives to invest are affected by: intellectual property rights, regulation of biotechnology, R&D investment tax policies, antitrust policies toward cooperative research ventures, and the cost of corporate borrowing. Additional incentives may be provided through the Small Business Innovative Research program and joint public-private R&D ventures, called Cooperative Research and Development Agreements (CRADA's). CRADA's, authorized by the Technology Transfer Act of 1986, are formal agreements between public agencies and private firms to conduct joint R&D projects. USDA has over 200 CRADA's with private firms, more than any other government agency.

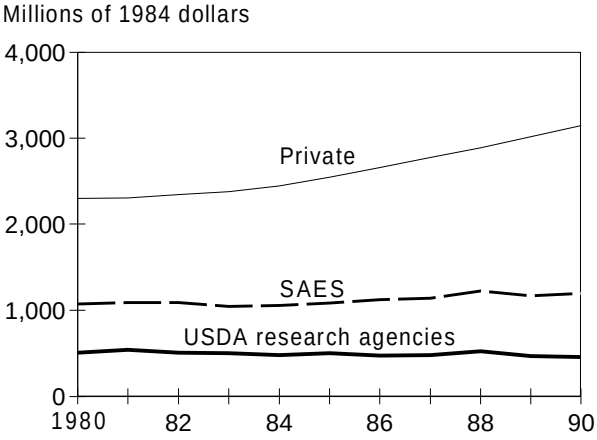
(3) Expand public research where the private sector is less likely to invest, such as basic science. Other research areas include nutrition, rural development, and natural resources and the environment. USDA research funding in these three areas declined 12 percent between 1978 and 1989.

Agenda. Agricultural research policy will be guided by USDA budget appropriations for its research agencies and Competitive Research Grants Office. Legislation designating priority issues for public R&D may undergo examination as part of the 1995 farm bill. Private sector research will be affected by legislation governing intellectual property rights, R&D investment tax credits, and cooperative research ventures.

Information Sources. Assessments of U.S. agricultural research policy are provided in Vernon Ruttan, *Agricultural Research Policy*, Minneapolis: University of Minnesota Press, 1982, Rockefeller Foundation, *Science for Agriculture*, New York: The Rockefeller Foundation, 1982. U.S. Congress, Office of Technology Assessment. *An Assessment of the U.S. Food and Agricultural Research System*, Washington, DC: U.S. Government Printing Office, 1981, and Kenneth Dahlberg, *New Directions for Agriculture and Agricultural Research*, Totowa, NJ: Rowmand & Allanheld, 1986.

Agricultural research and development expenditures, 1980-90

Private research expenditures have risen more sharply than public funding.



Source: Wallace E. Huffman and Robert E. Evenson, *Science for Agriculture: A Long-Term Perspective*, Ames: Iowa State University Press, 1993.

International comparison of public agricultural research expenditures

The EC public agricultural research system has nearly closed the R&D funding gap, and Japan and Latin America have more than doubled their public expenditures.

Country/ region	Research expenditures		Percent of U.S. expenditures	
	1961-5	1981-5	1961-5	1981-5
	Millions of 1980 dollars/year		----------*Percent*----------	
United States	884.7	1,423.9	100.0	100.0
E.C.	553.2	1,406.5	62.5	98.8
Japan	404.4	1,021.6	45.7	71.7
Latin America	211.8	678.9	23.9	47.7
Canada	148.8	421.4	16.8	29.6
Australia/N.Z.	161.1	312.7	18.2	22.0