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Markets, Prices 1998 Policies & Risks

*The Economic
Future of
Agriculture in the
Northern Plains*

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CONFERENCE
PROCEEDINGS

Objective
Analysis
for Informed
Decision Making

Trade and Overseas Investment in the Food Processing Industry

Ian M. Sheldon

Background

Typically when the United States Department of Agriculture (USDA) provides analysis of trade, the focus is on exports and imports of agricultural commodities such as wheat, coarse grains, and oilseeds. These commodities are not only key to world food security but are also significant traded commodities for producers such as the United States and Canada. In the 1996–1997 crop year, exports from the United States accounted for 23 percent of world wheat exports, 63 percent of world corn exports, and 66 percent of world soybean exports, as measured by volume. Grains and oilseeds also accounted for 48 percent of the total value of U.S. agricultural exports in the same year (Economic Research Service 1997).

There is a commonly held view that agricultural commodity trade dominates international commerce in food and agriculture. However, the value of world trade in processed foods far exceeds that in agricultural commodities. International commerce in processed foods not only relates to direct exports but also includes activities such as the production and sales of processed foods overseas by foreign affiliates. This paper addresses both the extent of international trade and foreign investment in the U.S. food processing sector.

Food Processing

An important issue concerns the definition of the processed food trade industry. The USDA uses the Standard Industrial Classification scheme, which places food processing under the heading “Food and Kindred Products.” Product definitions and specific products are provided (see Table 19). Key to this definition is that the products included have undergone processing. Hence, an agricultural commodity such as livestock is excluded, but packaged meat products are included. In 1994, the total value of shipments by this sector was \$430 billion, accounting for 25 percent of value added in the U.S. food marketing system, and 14 percent of total U.S. manufacturing output, making it the largest single U.S. manufacturing sector.

Trade in Processed Foods

The value of world trade in processed food and its relative share of world trade have grown substantially over the past two decades, increasing from 58 percent in 1972 to 67 percent in 1993 of the value of world trade in food and agricultural commodities (see Figure 8). This occurred despite major growth in agricultural commodity trade.

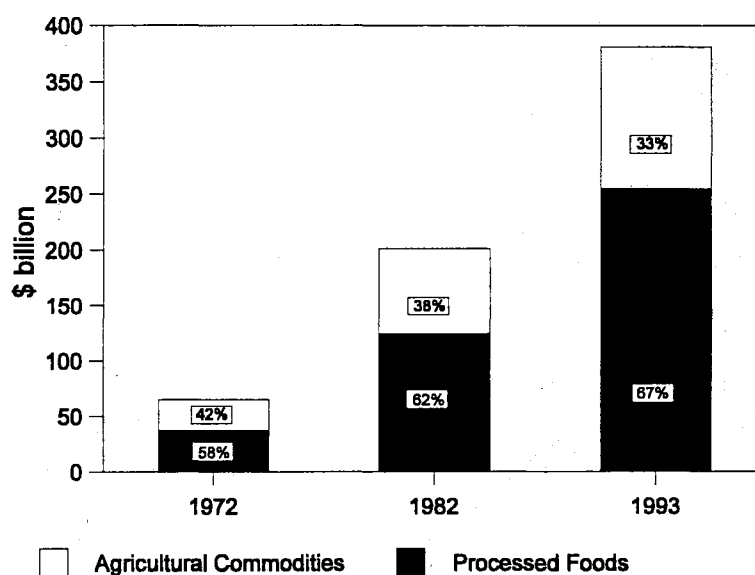
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Table 19. Standard Industrial Classification, "Food and Kindred Products"

Definition	Product Description	Definition	Product Description
Meat Products	Meat Packing	Sugar and Confections	Candy
Dairy Products	Cheese	Fats and Oils	Cooking Oils
Preserved Fruit and Vegetables	Canned Fruit	Beverages	Soft drinks
Grain and Mill Products	Breakfast Cereals	Miscellaneous Foods	Pasta
Bakery Products	Cookies		

Source: U.S. Department of Commerce

Figure 8. World Trade in Food and Agricultural Commodities



Source: Economic Research Service, USDA

World trade in processed food has become increasingly concentrated among a few countries, the majority being accounted for by the countries of Western Europe, North America, Australasia and Japan. Twenty-four countries accounted for 80 percent of the value of such trade at the start of the 1990s as compared to 68 percent at the start of the 1960s. The top five exporters of processed food at the start of the 1990s were France, the Netherlands, the United States, Germany and the United Kingdom, accounting for 38 percent of exports. The top six importers of processed foods were Japan, Germany, the United States, France, the United Kingdom and Italy, accounting for 53 percent of imports. Note the degree of overlap between major exporters and importers of processed foods. These are countries with similar levels of income per capita. As per capita incomes have risen, consumers in these countries have allocated food expenditures toward more highly processed products as their basic subsistence needs have been satisfied.

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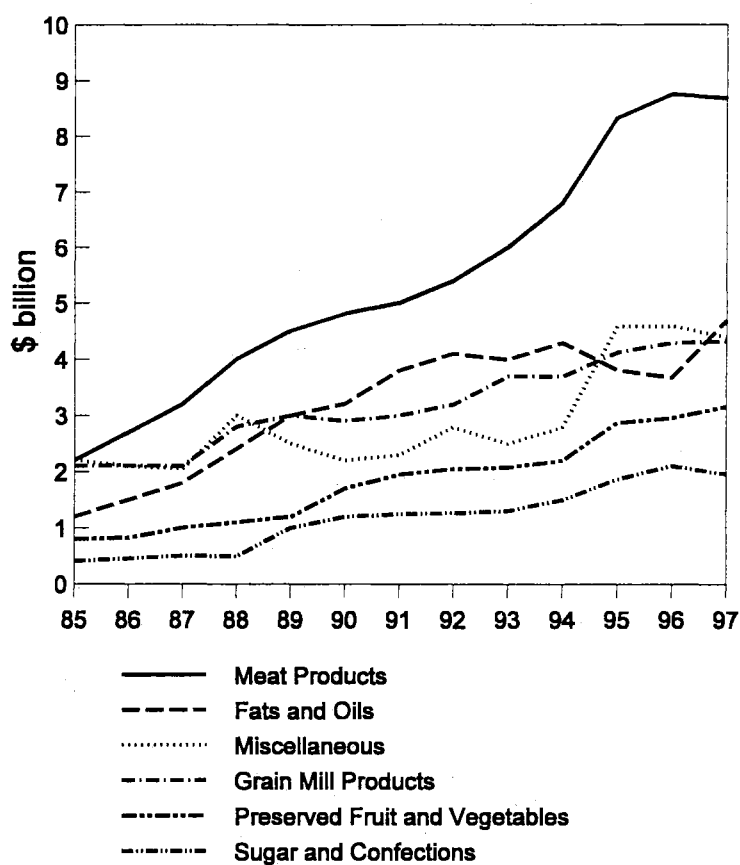
The U.S. processed food sector, which exhibited a trade deficit of about \$5 billion in the mid-1980s, generated a trade surplus by the start of the 1990s. This was due largely to a 97 percent increase in exports over the period 1985–1991, compared to an increase of only 26 percent in imports (Henderson et al. 1996). This improvement in the trade balance was due to rapid export growth in the meat products sector and export increases in the fats and oils and grain mill products sectors. By 1997 trade was virtually balanced. Exports and imports grew by 55 and 53 percent, respectively, between 1991 and 1997.

The values of U.S. processed food exports increased substantially from 1985 to 1997 (see Figure 9). By 1997, meat products exports were valued at \$8.7 billion, accounting for 28 percent of the total value of U.S. processed food exports, while fats and oils and grain mill products accounted for 15 percent and 14 percent of the total value of exports, respectively. In terms of imports of processed food by the United States, the leading sector was miscellaneous products, which accounted for 34 percent of the total value of imports at \$7.9 billion in 1994. The other major import sectors were beverages and meat products, which accounted for 18 percent and 13 percent of the value of processed food imports in 1994, respectively.

The United States exports processed food to most countries in the world. On average, Japan, Canada, Mexico, and South Korea accounted for 53 percent of U.S. exports in the 1990s.

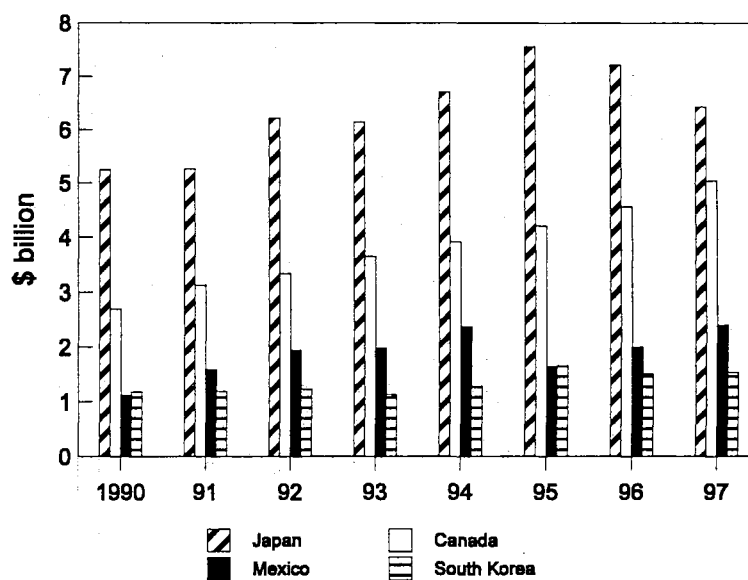
The United States exports processed food to most countries in the world. On average, Japan, Canada, Mexico, and South Korea accounted for 53 percent of U.S. exports in the 1990s. In 1997 shares of U.S. processed food exports to these four countries were 20, 16, 8 and 5 percent, respectively (see Figure 10). These same four countries were also the largest destinations for U.S. agricultural exports, collectively accounting for 45 percent of the value of U.S. exports in the 1996–1997 crop year. In contrast, the U.S. imports processed food from a much wider set of countries. Ten countries accounted for 58 percent of U.S. processed food

Figure 9. U.S. Processed Food Exports



Source: Economic Research Service, USDA

Figure 10. Major U.S. Export Destinations



Source: Economic Research Service, USDA

imports in the first part of the 1990s (Henderson et al. 1996). Canada usually accounts for about 20 percent of the value of U.S. processed food imports, with other major suppliers being Mexico, Australia, France, and Brazil.

The importance of Canada and Mexico as trading partners with the United States is driven by their geographic proximity. Exports to Mexico did fall off in 1995 after the collapse of the peso in 1994, but since then there has been a recovery. United States exports to Canada have grown at an average of 8 percent a year over the past three years. The existence of the North American Free Trade Agreement has fostered U.S. processed food exports to Canada and Mexico.

In addition to Japan and South Korea, Taiwan and China have also been major Asian markets for U.S. food exports in the 1990s. U.S. exports to Taiwan grew by 121 percent over the 1990–1997 period. Food exports to China grew in excess of 1000 percent over the same period. This growth, particularly in meat products exports, is likely to level off due to the recent currency depreciation undergone by countries such as South Korea and also because general economic growth is expected to slow. Whether there will be a long-term reduction of U.S. food exports to Asia is difficult to forecast. Even prior to the financial crisis, the strong economic growth realized in Asia in recent years was expected to flatten in 1998 (Economic Research Service 1997), and exports to Japan were declining. In the longer term the World Bank forecasts that developing economies, including parts of Asia, will grow by 5 to 6 percent a year between now and the year 2020, with Brazil, China, India, Indonesia, and Russia together expanding to 18 to 20 percent of world income. There is long-run potential for expanding exports to these countries.

Overseas Investment in Food Processing

Globally, the share of processed food exports in total food and agricultural trade outweighs that of bulk commodities. In the United States, however, processed food exports account for approximately 40 percent of total food trade as compared to an average of 75 percent for leading European exporters. Why does the U.S. export relatively less processed food as a share of total food and agricultural exports than other developed countries? It might be suggested that the United States is “uncompetitive” in this sector. Without a debate over what “competitiveness” means, alternatively it can be argued that the United States's comparative advantage, and hence its “competitiveness” lies in producing and exporting bulk commodities rather than processed food products. Critics of this position argue that the United States has been less able to compete in processed food trade due to the level of export subsidies received by food processing firms in other countries. For example, in Europe, because of agricultural support prices, the authorities have dealt with commodity surpluses by providing processors of such commodities with export subsidies. However, it should be noted that U.S. food processing firms have also had access to export subsidies. Therefore, to some extent, these subsidies have been self-canceling.

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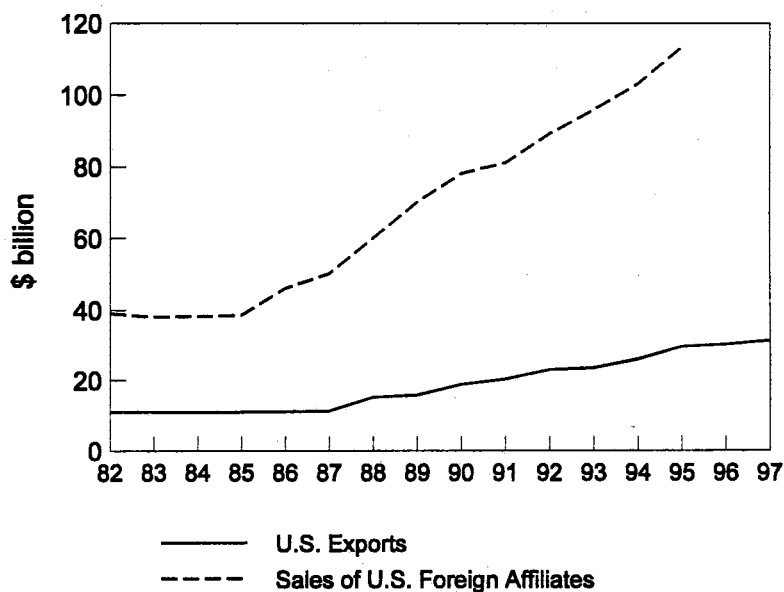
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Frequently ignored in the analysis of trade in the food and agricultural sector is that food processing firms have alternative strategies to direct exporting.

Frequently ignored in the analysis of trade in the food and agricultural sector is that food processing firms have alternative strategies to direct exporting. Most commonly, U.S. food processors gain access to foreign markets through foreign direct investment, which involves either "green-field" site investment in plant and equipment or the purchase of existing assets in a foreign market, which are then operated as a subsidiary.

How important is foreign investment to U.S. firms? Exports of U.S. food processing firms account for a relatively small share of the total value of U.S. food industry output—6 percent of the value of shipments in the 1990s. Most large U.S. food manufacturers rely much more on investing in overseas markets than they do on exporting. In 1993, U.S. corporations held at least 10 percent equity in 762 foreign food manufacturing affiliates (Henderson et al. 1996). By 1995, sales from these foreign affiliates had grown by 189 percent since 1982 and were estimated to be at \$113 billion, almost four times U.S. processed food exports of \$29.39 billion in 1995 (see Figure 11).

Figure 11. U.S. Exports and Foreign Affiliate Sales of Processed Foods



Source: Economic Research Service, USDA

The bulk of overseas investment by U.S. corporations is in Europe, Canada, and Japan, accounting for 73 percent of affiliate sales. U.S. firms are among some of the largest food processing firms, accounting for six places in the top ten largest food firms worldwide in 1993, as measured by food sales (see Table 20). U.S.-owned firms utilize foreign investment heavily as a strategy to penetrate foreign markets.

U.S.-owned affiliates export very little of their output back to the United States. An estimated 79 percent of their sales are in the countries where they operate, 21 percent are sales to other countries, of which a mere 2 percent of their sales are exported to the United States. There is also significant investment by non-U.S. firms in the U.S. food processing industry. Following rapid growth in investment by non-U.S. firms in the late 1980s, 12 percent of the U.S. food processing sector was foreign-owned in 1992, and foreign-owned food processing firms accounted for \$46 billion worth of sales, having grown from \$14.8 billion in the early 1980s (Henderson et al. 1996). The bulk of this investment is by European-owned firms. Almost all of the sales of these foreign-owned affiliates are within the United States, so the investment is clearly targeted at the U.S. market.

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Table 20. World's Largest Food Processing Firms, 1993

Company	Headquarters	Processed Food Sales \$ billion	Major Product
1. Nestlé	Swiss	36.3	Foodstuffs, restaurants
2. Philip Morris/ Kraft General Foods	USA	33.8	Foodstuffs, tobacco, beer
3. Unilever	UK/Netherlands	21.6	Foodstuffs, soaps
4. ConAgra	USA	18.7	Foodstuffs, meats, poultry
5. Cargill	USA	16.7	Grain and oilseed products
6. Pepsico	USA	15.7	Soft drinks, snacks, restaurants
7. Coca Cola	USA	13.9	Soft drinks
8. Danone	France	12.3	Dairy products
9. Kirin Brewery	Japan	12.1	Beer, soft drinks
10. IBP	USA	11.2	Meats

Source: Economic Research Service, USDA

Increased processed food exports generate increased demand for agricultural commodities used as inputs.

Farmers can benefit from producing "high-value" products for export, but this is very distinct from "adding value" via processing.

Implications for Agriculture

Exports of processed food products have become increasingly important in world trade over the past 25 years. Even though the United States exports less processed food relative to agricultural commodities when compared to competing countries in Europe, the sector has shown significant growth in the 1990s, particularly in meat products, fats and oils, and grain products. However, U.S. food processors sell more through their overseas subsidiaries than they export directly from their U.S. facilities.

At the risk of ignoring the broader economic impact of processed food trade on the U.S. economy, what does all of this mean for U.S. agriculture? Increased processed food exports generate increased demand for agricultural commodities used as inputs. The export of meat products, fats and oils, and grain products generate demand for livestock, oilseeds, and grains. More and more exports of agricultural commodities will be in the form of processed products, as consumers in developing countries change their consumption patterns due to increases in per capita incomes. U.S. imports of processed food products will have a negative impact on U.S. suppliers of bulk commodities. But with the overall trade surplus in the sector, the net effect of processed food trade on agriculture is likely to be positive.

In the case of foreign direct investment, it is very difficult to pin down precise effects on U.S. suppliers of agricultural commodities. U.S. firms operating subsidiaries in foreign markets may source their commodity inputs from local markets, which will have a negative effect on commodity exports from the United States. But certain key ingredients may be sourced from the United States, which is certainly the case with well-known global brands such as Coca-Cola. In the case of foreign investment in the U.S. food processing sector, the impact on agriculture depends on whether the foreign parent either rationalizes existing production capacity, invests in new production facilities, or simply maintains capacity that would otherwise have been closed.

As trade shifts toward processed food, should agriculture become more involved in processing? Care needs to be taken with this argument. Farmers can benefit from producing "high-value" products for export, but this is very distinct from "adding value" via processing. Food processing is a highly developed economic activity in which large global firms have a competitive advantage, both in terms of technology and marketing. There are examples of farmer-owned processing firms such as Sunkist and Ocean Spray that are very successful in international markets, having developed highly visible branded products, but these farmer-owned processing firms are the exception rather than the rule.

Acknowledgments

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For more information

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About the Author

Ian Sheldon is an Associate Professor of Agricultural Economics, The Ohio State University. His research focuses on trade and industrial organization in the food industry.