



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# THE CHANGING INTERNATIONAL ENVIRONMENT

Moderator: Milo Lacy, Professor Emeritus  
California State Polytechnic University

## Exporting in a Global Market

by

Charles R. Handy  
Economic Research Service  
U.S. Department of Agriculture

Walter B. Epps  
Economic Research Service  
U.S. Department of Agriculture

There is no question that food marketing firms are operating in an increasingly international, and yes, global environment. This growing economic interdependence stems from several developments:

- improved technology and lower costs in transportation, communication, and packaging;
- greater foreign investment, both into and out of the United States; and
- continued expansion of trade in processed food, especially among developed economies.

Food firms use three basic strategies to access foreign markets: (1) trade; (2) licensing; and (3) foreign investment. In this paper we concentrate on trade prospects in processed food (Standard Industrial Classification Code 20). We will briefly discuss foreign investment strategies by U.S. food processors later in the presentation. The purpose of this paper is to provide an overview of exports in food processing. Others on the program will cover individual countries or products and look at various export promotion programs.

### World Trade

First, let us look at total world trade in agricultural products and in processed food products (Figure 1). According to United Nations trade data, total agricultural exports rose from \$36 billion in 1968 to \$244 billion in 1988. World processed food exports rose from \$19 billion to \$151 billion. During this period, processed food share of total exports rose steadily, from 53 percent in 1968 to 57 percent in 1980 to 62 percent in 1988.

Figure 2 narrows the focus to U.S. agricultural exports (excluding tobacco) and to U.S. processed food exports (excluding seafood). Total U.S. agricultural exports rose from \$6 billion in 1968 to a peak of \$41 billion in 1981, fell to \$24 billion in 1986, and then rose to \$33 billion in 1988. Looking just at U.S. food processing, exports (excluding seafood) rose from \$2 billion in 1968 to almost \$12 billion in 1981. Exports then dropped to \$9 billion in 1985 before recovering to over \$12 billion in 1988.

U.S. processed food exports as a share of U.S. agricultural exports was 35 percent in 1968, fell to 30 percent in 1980, then rose to 38 percent in 1988. Thus processed food exports as a share of agricultural export is much smaller in the United States (38%) than it is for the world

Figure 1  
World Trade in Agricultural  
Products

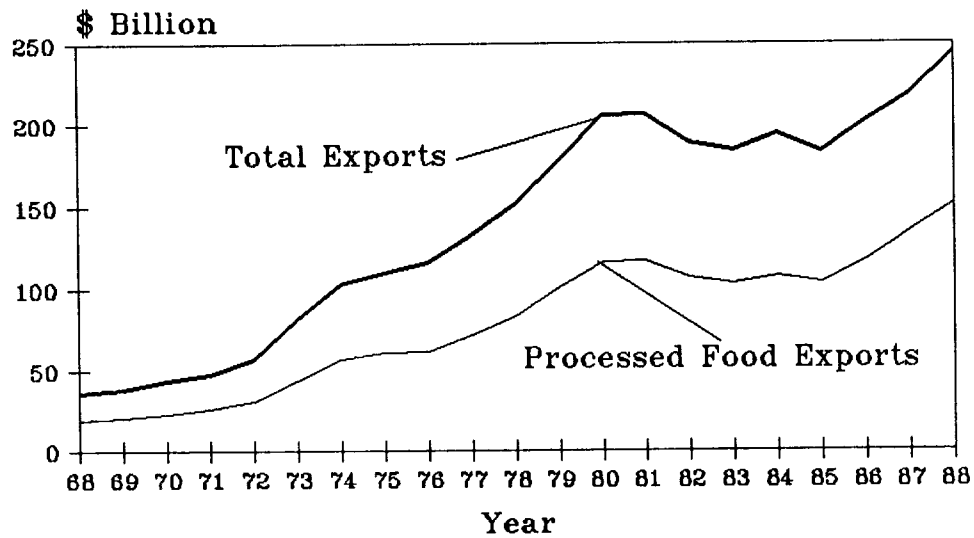
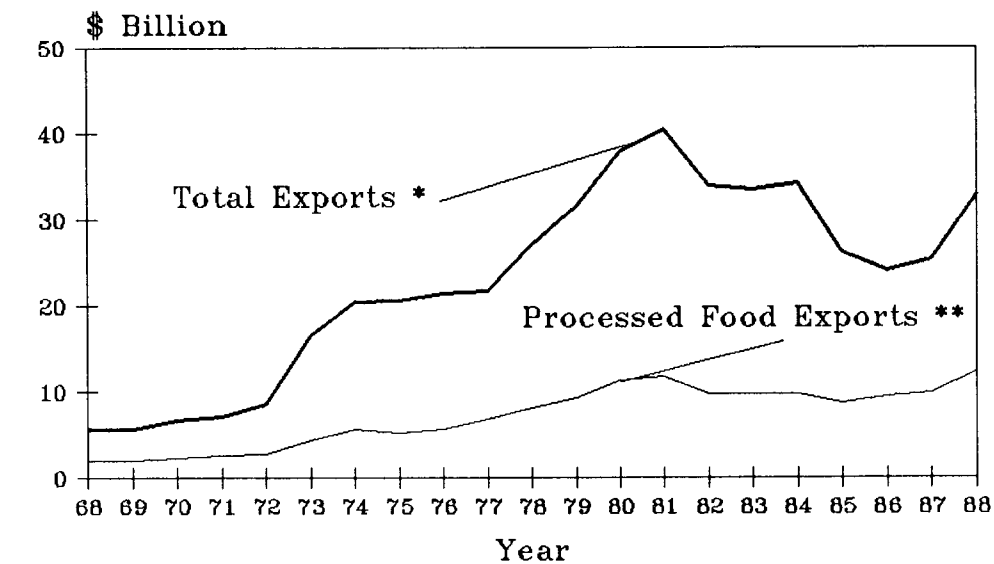


Figure 2  
U.S. Agricultural Exports



\* Excluding tobacco  
\*\* Excluding seafood

**Table 1**  
U.S. Food Processing Exports

SIC Code and Industry Group		1988	% ▲ year earlier	1st half 1989	% ▲ year earlier
		<u>Million dollars</u>		<u>Million dollars</u>	
20	Total Processed Food	15,747	18.3	8,616	17.3
201	Meat Products	4,015	23.4	2,257	23.2
202	Dairy Products	508	29.0	409	87.9
203	Preserved Fruits & Veg.	1,297	25.6	725	13.2
204	Grain Mill Products	2,907	24.6	1,597	17.4
205	Bakery Products	68	35.8	48	64.3
206	Sugar & Confections	581	-6.3	481	88.1
207	Fats & Oils	3,113	39.0	1,516	-10.5
208	Beverages	701	16.6	326	-6.2
209	Miscellaneous Foods	2,558	31.5	1,257	29.7

**Table 2**  
Leading Export Markets for U.S. Food Processed Food Products

Rank	Country	1988	1987	Percent Change 1988/1987
		<u>Million dollars</u>		
1	Japan	4,482	3,104	44.4
2	Canada	1,279	1,140	12.2
3	Netherlands	946	925	2.3
4	Mexico	887	431	105.8
5	South Korea	811	709	14.4
6	Iraq	489	347	40.9
7	United Kingdom	363	293	23.9
8	West Germany	362	466	-22.3
9	France	353	296	19.3
10	Taiwan	342	298	14.8
	World	15,747	12,468	18.3

(62%). Also, Figure 2 shows that processed food exports declined much less than did bulk agricultural commodities in the early 1980s when the value of the dollar was rising rapidly.

There have been several recent developments that have encouraged growth in U.S. processed food exports. These include:

- United States and Japan reached an agreement on citrus and beef.
- United States and Canada signed the Free Trade Agreement.
- Korea lowered trade barriers on beef and other food items from the United States.
- Mexico changed its policy on manufactured food imports and lowered trade barriers in an effort to gain entrance to GATT.
- The United States and the Soviet Union established the "Food Industries International Trade Council" to facilitate trade in processed food and equipment.
- Federal programs such as the Export Enhancement Program and the Targeted Export Assistance program and State Export Trade Centers also facilitate the export of processed food and feed products.

### Processed Food Exports by Industry

Total processed food (SIC 20) exports reached \$15.7 billion in 1988, up 18 percent from 1987 according to Bureau of Census trade data. Processed food exports continued to surge in the first half of 1989, up 17 percent from a year earlier (Table 1). Significant increases occurred in all 3-digit industry groups except fats and oils and beverages. The five leading exports industry groups are: meat products; fats and oils; grain mill products; miscellaneous food (mostly seafood); and preserved fruits and vegetables.

Which countries are the leading markets for U.S. processed food exports? Japan, by far, is our largest market for processed food (Table 2). Twenty-eight percent, or \$4.5 billion, of U.S. processed food exports went to Japan in 1988. Exports to Japan increased 44 percent over 1987. Exports to Canada, our second largest market, grew 12 percent. Canada accounted for 8 percent of total SIC 20 exports. Mexico leaped to our fourth largest export market in 1988. Exports to Mexico rose 106 percent from 1987 and continued to grow rapidly in 1989. South Korea and

Taiwan reflect strong Pacific Rim export growth.

Table 3 shows meat product exports by 4-digit industry and by country of destination. The meat packing industry (which includes all red meats) accounts for \$3.5 billion or 88 percent of all meat exports, including hides. Japan accounted for almost one-half of all meat packing exports in 1988 followed by South Korea and Mexico.

Poultry and egg industry exports grew 12.5 percent in 1988 and were up 26 percent in the first half of 1989. Thirty-five percent of poultry and egg exports went to Japan in 1988. Hong Kong and Singapore are cutting poultry production due in part to environmental problems. During the first half of 1989, broiler exports to Canada increased 69 percent, while Hong Kong exports were up 66 percent and exports to Mexico rose 60 percent.

The dairy products group is not a major export sector, except for condensed, evaporated, and dry milk which accounted for 84 percent of dairy exports in 1988 (Table 4). Exports grew 29 percent in 1988 and were up nearly 88 percent in the first half of 1989. Mexico, our largest market, imports mostly non-fat dry milk. 1988 exports were mostly from non-commercial government-held stocks, while 1989 exports were primarily from commercial stocks.

Preserved fruits and vegetables exports reached \$1.3 billion in 1988 and have grown another 13 percent in the first half of 1989 (Table 5). Japan is the largest export market for canned, dried, and frozen fruits and vegetables. Among canned fruits and vegetables, tomato exports were up 53 percent in 1988. In the dried fruits and vegetables industry, raisin exports to the European Community have grown substantially since 1985. Among frozen products, citrus juice and frozen potatoes are the two biggest export items. Japan alone accounts for 89 percent of frozen potato exports.

At \$2.9 billion, grain mill products is the third largest export group (Table 6). Within this industry group, wet corn milling accounts for the largest volume of exports followed by rice milling and prepared animal feeds. Flour exports to Egypt have benefited from the Targeted Export Assistance program. The United States exports about 50 percent of its rice with Iraq and Saudi Arabia being the largest two markets. Wet corn milling exports were down slightly in 1989 due to the drought in 1988. The EC is by far our largest market for wet corn milling products. Canada was our largest export market for pet

**Table 3**  
Meat Products Exports by Country

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	<u>Million dollars</u>		
201 Meat Products	4,015	23.4	23.2
2011 Meat Packing	3,519	25.1	21.7
Japan	1,651		
S. Korea	671		
Mexico	317		
Taiwan	187		
Canada	170		
2015 Poultry & Egg	496	12.5	25.6
Japan	176		
Mexico	64		
Hong Kong	50		
Canada	47		
Singapore	27		

**Table 4**  
Dairy Products Exports by Country

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	<u>Million dollars</u>		
202 Dairy products	508	29.0	87.9
2083 Condensed, Evap., and Dry Milk	428	45.7	97.9
Mexico	117		
India	37		
Phillipines	33		
Iraq	29		
Japan	26		

**Table 5**  
Preserved Fruits and Vegetables Exports by Country

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	<u>Million dollars</u>		
203 Preserved Fruits & Veg.	1,297	25.6	13.2
2033 Canned Fruits & Veg.	343	30.9	24.7
Japan	100		
Canada	49		
Taiwan	19		
W. Germany	19		
United Kingdom	15		
2034 Dried Fruits & Veg.	361	14.1	20.1
Japan	74		
United Kingdom	46		
W. Germany	38		
Canada	38		
Sweden	21		
2037 Frozen Fruits & Veg.	460	34.5	3.6
Japan	170		
Canada	70		
Netherlands	65		
United Kingdom	16		
W. Germany	15		

**Table 6**  
Grain Mill Products Exports by Country

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	Million dollars		
204 Grain Mill Products	2,907	24.6	17.4
2041 Flour	298	6.6	61.4
Egypt	114		
Canada	18		
Japan	17		
Haiti	14		
Ethiopia	14		
2044 Rice Milling	783	36.7	19.3
Iraq	199		
Saudi Arabia	100		
Belgium	45		
Phillipines	43		
Canada	41		
2046 Wet Corn Milling	1,054	14.6	-0.3
Netherlands	405		
Portugal	82		
W. Germany	79		
Japan	69		
Italy	62		
2047 Pet Food	103	-35.8	298.1
Canada	35		
Japan	29		
Switzerland	13		
United Kingdom	4		
Netherlands	4		
2048 Prepared Animal Feed	632	78.5	-27.3
Japan	111		
Iraq	94		
Netherlands	85		
France	67		
Canada	42		



food, while Japan was the largest single export market for prepared animal feeds.

Sugar and confections exports are relatively low (Table 7), but exports for most products rose rapidly in the first half of 1989. Japan was the largest export market for both cane sugar refining and for confectionery products.

Fats and oils is the second largest food processing export group with 1988 exports of \$3.1 billion (Table 8). Exports grew 39 percent in 1988, but fell in 1989 due to lower supplies following the 1988 drought. Soybean oil mills account for 67 percent of all fats and oils exports. After increasing 42 percent in 1988, soybean oil mills exports have declined 10 percent in the first half of 1989. Exports from vegetable oil mills and from animal/marine fats and oils also expanded rapidly in 1988 before contracting in 1989. Developing countries tend to be large importers of fats and oils.

Historically, beverages has not been one of the leading export groups in our food processing sector. Flavorings, extracts, and syrups is the largest beverages export industry because soft drink firms export concentrate syrup to bottling plants throughout the world (Table 9). Much faster export growth is occurring, however, in the other four beverage industries. U.S. brewers typically license foreign firms to produce and market their U.S. brands in foreign markets. But recently beer exports have been expanding rapidly--up 21 percent in 1988 and a dramatic 189 percent in the first half of 1989. Wine exports are also growing rapidly from a small base, particularly to Japan and the United Kingdom. Exports of distilled and blended liquors have grown about 20 percent in both 1988 and 1989, primarily to Japan and the EC. Almost three quarters of all U.S. soft drink and carbonated water exports go to Japan. Several west coast soft drink firms are manufacturing and shipping Japanese soft drinks under contract to Japanese processors. Even exports of bottled water are growing rapidly.

Miscellaneous food is the fourth largest export group with exports concentrated in the fresh or frozen fish and seafood industry and in the canned fish and seafood industry (Table 10). Again, Japan is by far our leading market for fish and seafood exports. According to industry trade reports, seafood exports are expected to grow from \$2.2 billion in 1988 to \$3.9 billion in 1995. Exports of surimi products are expected to grow at an annual rate of 21 percent, reaching about 470 million pounds in 1995.

## Foreign Investment

Now let us briefly look at foreign investment strategies of U.S. food processors. Foreign investment generally is a negative factor affecting U.S. exports. Large U.S. processors of packaged food generally prefer (for marketing reasons) to establish production facilities in foreign markets rather than to export from their U.S. facilities. Data from the Economic Research Service, USDA, show that large U.S. food processors on average receive about 24 percent of their total sales from their foreign subsidiaries. In contrast, these firms export on average only about 3 percent of their sales from U.S. operations.

According to the Department of Commerce data, in 1987 U.S. firms had 655 foreign affiliates classified as food processors. These foreign affiliates had sales of \$50 billion (Table 11). As one would expect, most food processing affiliates are located in developed countries which account for 82 percent of all affiliate sales. Europe alone accounted for 58 percent of affiliate sales while 11 percent came from Canada, and 9 percent from Japan. Within the developing countries, Brazil and Mexico were the two largest host countries for U.S. food processing subsidiaries. In addition, U.S. food manufacturing parents maintain only weak trade links with their own affiliates. Only 16 percent of food manufacturing parent exports were shipped to their foreign affiliates.

Worldwide, the United States heads the list of largest food processors. Of the largest ten food processors in the world, seven are U.S. firms.

## Conclusions

Processed food exports are increasing as a percent of all agricultural exports. U.S. processed food exports increased dramatically in 1988 and again in 1989. Many of the trends we mentioned earlier in the paper will lead to continued growth in processed food exports in the 1990s.

The largest export markets tend to be in unbranded "commodity-type" processed products such as meats, vegetable oil and meal, seafood, animal feeds, and bulk containers of processed fruits and vegetables including frozen french fry potatoes and tomato products. But there also has been a big percent increase, from a relatively small base, in exports of branded products such as wine, beer, and distilled liquor. Still, the major U.S. multinational corporations producing branded highly advertised packaged food will continue to favor foreign investment, licensing, and joint venture strategies to access foreign markets, over reliance on export strategies.

**Table 9**  
**Beverages Exports by Country**

Industry and Leading Markets		1988 Exports	Percent change	
			<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
		<u>Million dollars</u>		
208	Beverages	701	16.6	-6.2
2082	Malt Beverages	68	21.2	189.0
	Japan	17		
	Canada	15		
	Panama	4		
	Hong Kong	3		
	Taiwan	3		
2084	Wines & Brandy	89	41.4	22.1
	Japan	23		
	United Kingdom	17		
	Canada	14		
	Mexico	4		
	Sweden	3		
2085	Distilled & Blended Liquors	175	23.5	20.0
	Japan	48		
	Australia	18		
	Canada	17		
	W. Germany	15		
	France	14		
2086	Soft Drinks & Carbonated			
	Water	84	110.4	12.9
	Japan	61		
	Neth. Antilles	2		
	Cayman Islands	2		
	Canada	2		
	Bahamas	2		
2087	Flavorings, Extracts, &			
	Syrups	266	5.7	NA
	Hong Kong	17		
	Canada	16		
	Mexico	16		
	Japan	14		
	Phillipines	11		

**Table 7**  
**Sugar and Confections Exports by Country**

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	<u>Million dollars</u>		
206 Sugar & Confections	581	-6.3	88.1
2062 Cane Sugar Refining	216	-2.3	16.3
Japan	49		
Netherlands	46		
Canada	44		
Iraq	30		
Jordan	15		

**Table 8**  
**Fats and Oils Exports by Country**

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	<u>Million dollars</u>		
207 Fats and Oils	3,113	39.0	-10.5
2075 Soybean Oil Mills	2,081	41.7	-9.9
Soviet Union	246		
Venezuela	236		
Pakistan	234		
Canada	189		
Netherlands	126		
2076 Vegetable Oil Mills	226	45.1	-23.6
Mexico	39		
Netherlands	33		
Algeria	32		
Japan	24		
Turkey	23		
2077 Animal/Marine Fats & Oils	573	32.0	-3.2
Egypt	65		
Mexico	58		
Netherlands	48		
S. Korea	35		
Columbia	31		

**Table 10****Miscellaneous Foods and Seafood Exports by Country**

Industry and Leading Markets	1988 Exports	Percent change	
		<u>Annual</u> 1988/1987	<u>1st 6 months</u> 1989/1988
	<u>Million dollars</u>		
209 Miscellaneous Foods	2,558	31.5	29.7
2091 Canned Fish & Seafood	325	37.9	23.3
Japan	140		
United Kingdom	52		
Taiwan	10		
Portugal	10		
Netherlands	7		
2092 Fresh or Frozen Fish & Seafood	1,836	37.9	23.3
Japan	1,432		
Canada	126		
France	68		
S. Korea	37		
United Kingdom	29		
2099 Food Preparations, NEC	282	0.5	NA
Canada	52		
Japan	35		
Bahamas	20		
Saudi Arabia	12		
W. Germany	11		

**Table 11**  
**Food Processing Sales of U.S. Firms Through Their Foreign Affiliates, 1987**

Location of SIC 20 affiliate	Sales of foreign affiliates	Share of total sales
	<u>Billion dollars</u>	<u>Percent</u>
All Countries	50.0	100.0
Developed Countries	41.1	82.2
Europe	29.1	58.2
United Kingdom	7.2	14.4
W. Germany	4.6	9.2
Netherlands	3.6	7.2
Canada	5.4	10.8
Japan	4.4	8.8
Australia, N.Z., S. Africa	2.2	4.4
Developing Countries	8.9	17.8
Brazil	1.9	3.8
Mexico	1.6	3.2