United States General Accounting Office

GAO

Briefing Report to the Honorable
Ted Stevens, United States Senate

October 1986

SEAFOOD MARKETING

Opportunities to Improve the U.S. Position

RESTRICTED——Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.
537146

GAO/RCED-87-11BR

GAO

United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-218659

October 22, 1986

The Honorable Ted Stevens
United States Senate

Dear Senator Stevens:

In your December 12, 1984, request and subsequent meetings, you presented concerns that (1) development within the U.S. seafood industry is progressing at a slower rate than within certain sectors of agriculture and (2) the seafood trade deficit is growing. We agreed to provide information on (1) how the U.S. seafood industry markets its products, (2) the federal role in assisting the seafood industry's efforts to become more competitive in domestic and foreign markets through market development and promotion programs, and (3) options and issues for improving U.S. seafood competitiveness that warrant further consideration.

The Departments of Commerce and Agriculture are the principal federal departments dealing with seafood marketing activities. Increasing exports and domestic consumption of U.S. seafood products are primary goals of the Secretary of Commerce. Within Commerce, the National Marine Fisheries Service (NMFS) is responsible for various programs related to developing the domestic seafood industry. NMFS coordinates with another Commerce agency, the United States & Foreign Commercial Service (US&FCS), to expand seafood exports. Agriculture is the major agency responsible for farmed seafood products (aquaculture), and its Foreign Agricultural Service (FAS) is responsible for developing food markets abroad.

We used business marketing criteria for analyzing federal seafood marketing efforts. Marketing-oriented businesses identify what potential customers want and develop or modify products or services to meet these customer requirements efficiently and effectively. Increased use of marketing techniques may allow the U.S. seafood industry to capture a greater share of domestic and foreign markets.

Our findings with regard to how the U.S. seafood industry markets its products in comparison with foreign seafood

industries and competing agricultural industries can be summarized as follows:

-- The U.S. seafood industry is generally more concerned about production than marketing and is made up of many independent firms with little industry integration or cooperation. These factors limit opportunities to compete with successful agricultural industries and foreign seafood competitors.

-- Many of the U.S. seafood industry's competitors use marketing techniques successfully. For example, in the poultry industry, businesses have successfully marketed their products through researching markets and marketing products in forms that are in demand by U.S. consumers and by integrating industry operations. Foreign seafood competitors, including Japan, Iceland, and New Zealand, have had similar successes through meeting consumer demand for consistent high-quality seafood.

-- A few industry members in various seafood regions are beginning to use marketing-oriented techniques to develop new markets. For example, some Maine fishermen have developed their own quality standards, bypassing the traditional seafood-distribution network and selling to targeted customers willing to pay more for quality products. Direct marketing in this case helps maintain quality control and ensure satisfied consumers. Also, a group of Alaska processors formed an association to promote frozen-at-sea Alaska pollock fillets. The frozen-at-sea process solved the quality problem of transporting soft fish to distant markets.

-- The industry has yet to develop a comprehensive market development strategy for itself. Industry leadership and cooperation are needed if federal efforts to assist the industry in becoming more marketing-oriented are to succeed.

With regard to the federal role in assisting the seafood industry competitiveness in domestic and foreign markets, we note that

-- NMFS, US&FCS, and FAS are coordinating efforts designed to improve their seafood marketing programs. Together, these programs apply all of the elements of marketing theory necessary for effective marketing activities. Closer coordination between these agencies can better aid the U.S. seafood industry marketing efforts and maximize scarce budget resources.

-- A number of Agriculture's programs provide marketing assistance to agricultural industries that are generally not available to the seafood industry. These programs provide marketing services that enable agricultural industry groups to work together on marketing activities. The programs include

   o the cooperator program, under which FAS and U.S. cooperators (agricultural trade associations and producer groups) jointly plan, implement, and finance overseas development activities designed to acquaint potential foreign customers with U.S. agricultural products;

   o the Agricultural Marketing Service's marketing order program and research and promotion boards, under which industry groups jointly research, develop, and promote agricultural products; and

   o the Food Safety and Inspection Service's mandatory inspection programs designed to ensure that the nation's commercial supply of meat and poultry is safe, wholesome, and correctly labeled.

Sections 1 through 4 of this briefing report discuss the results of our work in more detail. Included in section 4 are two sets of options for assisting the U.S. seafood industry. These options are not mutually exclusive. Advantages and disadvantages are presented for each option.

The first option discusses working within and improving the present federal framework for assisting the U.S. seafood industry. An advantage of this option is that NMFS, US&FCS, and FAS complement each other organizationally and their activities address all the elements of the marketing approach. A disadvantage is that the coordinated activities of NMFS, US&FCS, and FAS do not comprehensively address product quality. Promotion without product quality assurance is risky since repeat purchases for poor quality products are unlikely.

The second option deals with applying successful agricultural marketing activities to the seafood industry. One advantage of this option is that agricultural marketing programs could aid the seafood industry in becoming more marketing-oriented at low government cost. On the other hand, although sectors of the seafood industry are beginning to combine their efforts, arrangements involving marketing orders, cooperators, and research and promotion boards require strong industry leadership and a degree of industry cooperation that is currently the exception in the industry.

Irrespective of the approaches that may be considered for improving the competitiveness of the U.S. seafood industry in world and domestic markets, some fundamental issues, which are also discussed in section 4, will need to be addressed if the industry is to become more competitive. The issues cover

-- Will the industry provide adequate leadership and cooperation?

-- Will the industry commit itself to improving quality standards in order to increase reliability, product identity, and buyer confidence?

-- Will the industry apply marketing techniques on the scale necessary to capitalize on domestic and world market opportunities?

- - - - -

We did our work from January 1985 through July 1986. We reviewed numerous seafood industry studies by government, industry, and academic sources that address issues dealing with industry structure; held discussions with and obtained documents from officials within Commerce and Agriculture; and talked to industry experts and members of each industry sector, including fishermen, fish farmers, processors, and retailers, regarding their marketing activities.

Officials from the Departments of Commerce and Agriculture were given the opportunity to comment on a draft of this report. Commerce did not submit official written comments in time to include in this report. However, we did meet with program personnel and their suggestions have been included where appropriate. The Department of Agriculture provided official written comments that included suggestions and technical corrections, which we made in the report. (See app. I.)

As arranged with your office, unless you publicly announce its contents earlier, we do not plan to distribute this briefing report until 2 days from the date of this letter. At that time we will send copies to interested parties and make copies available to others upon request. If you would care to discuss this report further, please contact me on (202) 275-5138.

Sincerely yours,

Brian P. Crowley
Senior Associate Director

CONTENTS

		Page
SECTION		
1	THE U.S. SEAFOOD INDUSTRY AND THE FEDERAL AGENCIES INVOLVED IN SEAFOOD MARKETING	7
	The U.S. seafood industry	7
	The federal role in support of the U.S. seafood industry	15
2	U.S. SEAFOOD MARKET DEVELOPMENT AND PROMOTION	22
	Criteria for effective market development and promotion programs	22
	Successful agriculture and seafood efforts	22
	Constraints on applying marketing techniques to the U.S. seafood industry	26
	Current seafood marketing directions	28
3	THE FEDERAL ROLE IN SEAFOOD MARKETING	31
	Federal seafood marketing coordination efforts	31
	Potential federal assistance to the U.S. seafood industry	33
4	OPTIONS, ACTIONS, AND ISSUES FOR CONSIDERATION	40
	Option 1: Working within the present federal framework	40
	Option 2: Applying successful agricultural marketing activities to the U.S. seafood industry	43
	Issues for further consideration	44
5	OBJECTIVES, SCOPE, AND METHODOLOGY	46
APPENDIX		
I	COMMENTS FROM THE DEPARTMENT OF AGRICULTURE	47
TABLE		
1.1	Per capita seafood consumption for selected countries	10
3.1	Current seafood marketing assistance by agency	33
3.2	Marketing assistance in USDA agencies	36

FIGURE

1.1	The U.S. seafood harvest--major species by region	9
1.2	Seafood prices outpace meat and poultry prices	11
1.3	1985 U.S. seafood imports by species	12
1.4	1985 U.S. seafood exports by species	14

ABBREVIATIONS

ACS	Agricultural Cooperative Service
AFPA	American Fisheries Promotion Act of 1980
AIMS	Agricultural Information Marketing Service
AMS	Agricultural Marketing Service
ARS	Agricultural Research Service
CCC	Commodity Credit Corporation
FAS	Foreign Agricultural Service
FNS	Food and Nutrition Service
FSIS	Food Safety and Inspection Service
GAO	General Accounting Office
HNIS	Human Nutrition Information Service
ITA	International Trade Administration
MFCMA	Magnuson Fishery Conservation and Management Act of 1976
NFPA	National Forestry Products Association
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OT	Office of Transportation
USDA	United States Department of Agriculture
US&FCS	United States and Foreign Commercial Service

SECTION 1

THE U.S. SEAFOOD INDUSTRY AND THE FEDERAL AGENCIES INVOLVED IN SEAFOOD MARKETING

U.S. per capita consumption of seafood (finfish and shellfish) products reached an all-time high of 14.5 pounds in 1985, up from 12.3 pounds in 1982. Much of the increase is credited to a new emphasis on the health benefits of seafood. Seafood products are excellent sources of high-quality protein, contain generous amounts of amino acids that are needed to construct body protein, and are easily and almost completely digested. In addition, according to the National Institutes of Health, fish oils help prevent heart disease because they lower blood cholesterol levels and reduce the tendency to form blood clots that can lead to heart attacks and strokes.

Although U.S. seafood consumption is rising, the rate of consumption is low compared to per capita consumption of competing protein sources such as beef (78.9 pounds) and poultry (69.7 pounds).[1] Additionally, while seafood exports surpassed $1 billion for the third year out of the last seven in 1985, seafood imports reached a record $4.1 billion, resulting in a record $3.1 billion trade deficit.

THE U.S. SEAFOOD INDUSTRY

The U.S. seafood industry represents an important segment of the nation's economy. According to the Department of Commerce's National Marine Fisheries Service (NMFS), seafood contributed about $10 billion to the gross national product in 1985. During the same year, the seafood industry employed more than 300,000 individuals.

The U.S. seafood industry is independent and fragmented in nature. The interests, priorities, and problems of each group within the industry--fishermen and seafood farmers, processors, marketers, and consumers--vary from region to region, species to species, and product to product. Harvesting methods range from small shore-vessel operations to large, sophisticated, deepwater fishing vessels.

---

[1]Seafood consumption figures refer to products entering commercial markets and do not include recreationally caught seafood, which Commerce estimates to be 3 to 4 pounds per capita. In addition, seafood consumption is calculated in edible weights, whereas beef and poultry are calculated in retail weights. According to the U.S. Department of Agriculture (USDA), retail weight for meat and poultry include 5 to 30 percent inedible material, i.e. bones, fat, etc.

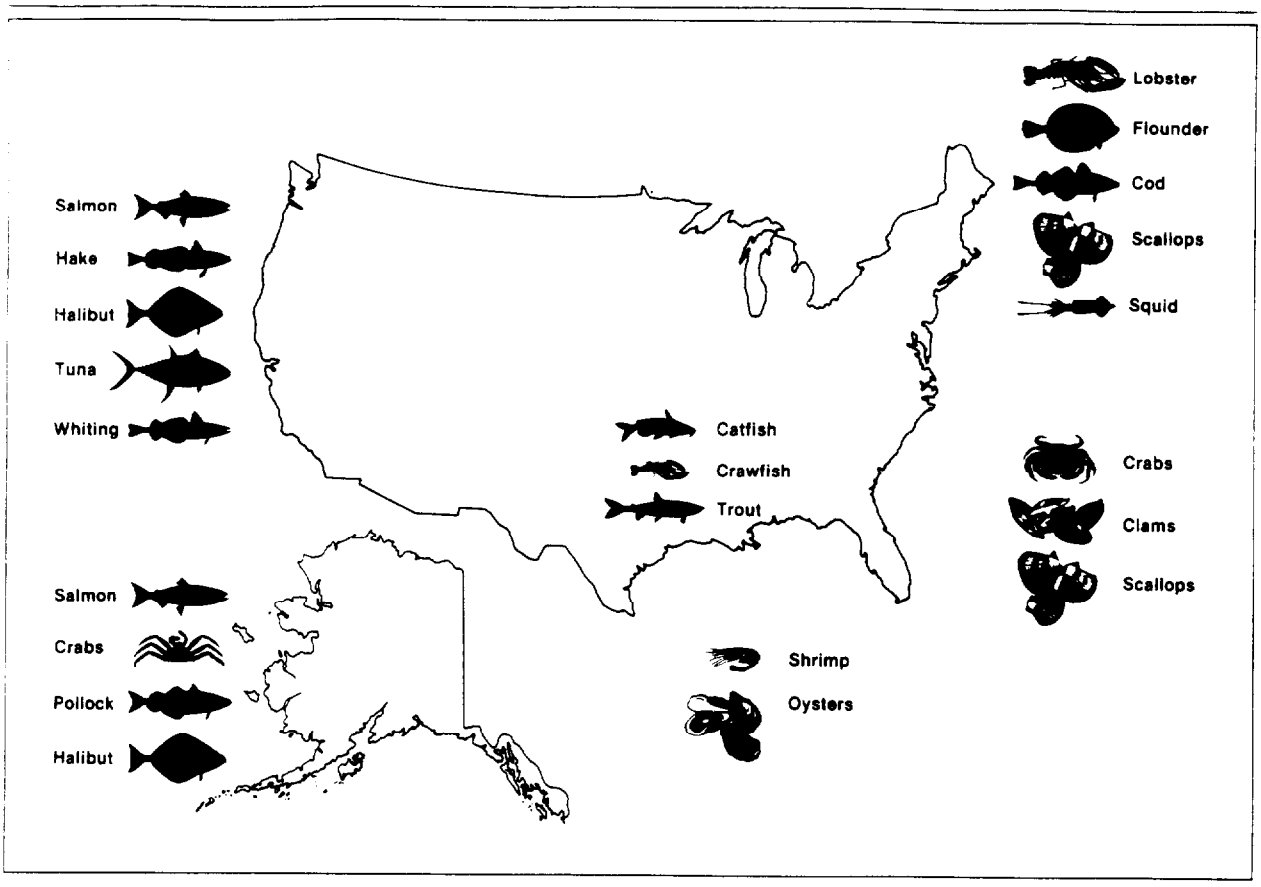
Processing operations vary in size from small, local firms to large multinational conglomerates. While most tuna and a few frozen fish product firms are fully integrated from harvesting through processing and marketing branded products, the industry in general consists of small, independent firms engaged in only one sector of the system.

A unique characteristic of the industry is the "common property" element of the resource. In contrast to other resource-related industries such as farming or mining, where resources such as land are privately owned and access is limited, virtually unlimited access exists to any U.S citizen desiring to harvest marine seafood.

The vast majority of U.S. fishermen concentrate on harvesting a small number of high-value species, which differ among the various U.S. fishery regions. (Figure 1.1 shows the major species harvested by region.) Catches in the Gulf of Mexico yield the highest single-value species, shrimp. The Pacific Coast (including Alaska) produces harvests with the greatest total value because of the salmon, tuna, and crab catches. Salmon, crab, tuna, and shrimp accounted for over 50 percent of the total value of U.S. harvests and 65 percent of the value of U.S. seafood exports in 1985.

According to USDA, farmed seafood (aquaculture) products accounted for 11 percent of the total seafood consumed in the United States in 1985. These farmed seafood species included 40 percent of the oysters and most of the catfish, crawfish, and rainbow trout eaten by U.S. consumers. USDA expects U.S. aquacultural production to more than double by the year 2000, with increasing market potential for species such as shrimp, whose wild stocks are often in short supply.

Figure 1.1: The U.S. Seafood Harvest--Major Species by Region



U.S. waters contain an estimated 15 to 20 percent of the world's marine resources. Although some popular species, such as king crab and redfish, are presently in short supply, overall only about one-third of the seafood that can be taken without harming the resource base is currently harvested and about one-fourth of that catch is taken by foreign ships.

As shown in table 1.1, when compared with major seafood-consuming nations, the United States ranks relatively low in seafood consumption.

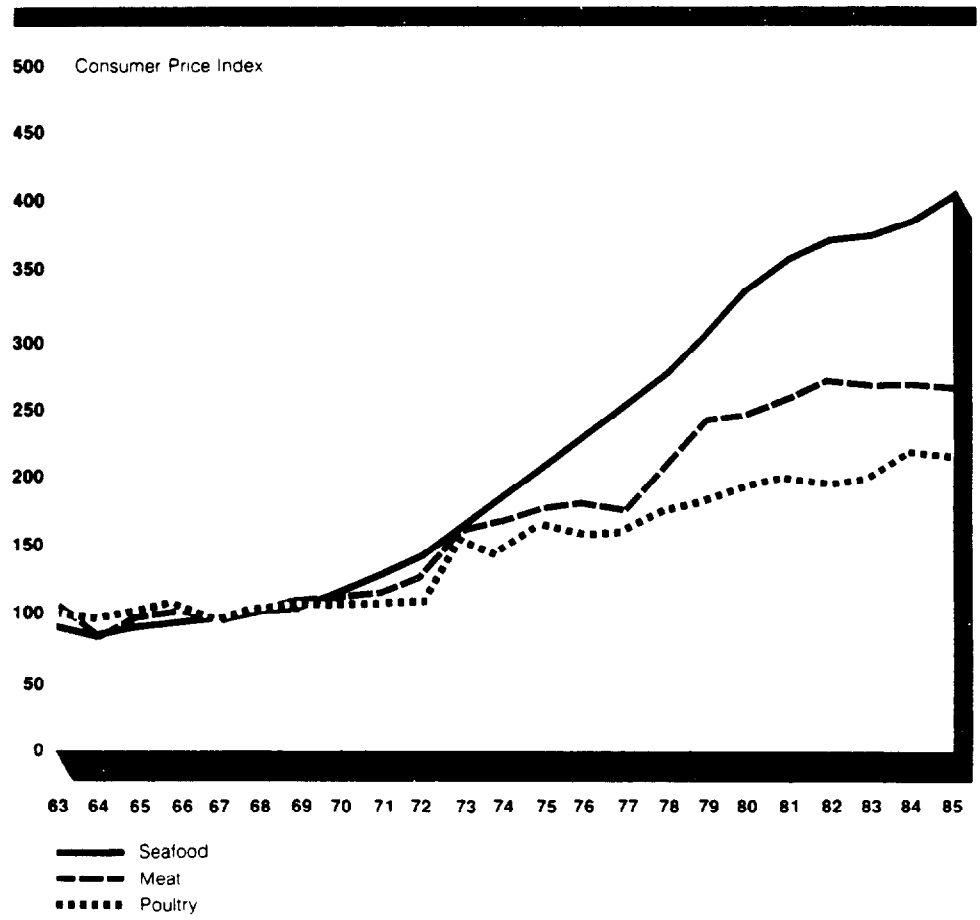
Table 1.1: Per Capita Seafood Consumption for Selected Countries

Country	Per capita consumption (pounds)
Japan	63.2
Korea	32.0
Spain	25.6
Portugal	21.2
USSR	19.0
France	17.9
United States	12.2
Italy	9.3
Egypt	3.8

Note: Based on average of 1980 to 1982 data supplied by the Foreign Agriculture Organization of the United Nations.

One factor that may contribute to lower seafood consumption is the relative price of U.S. seafood, which has been outpacing competing meat and poultry prices. (See fig. 1.2.)

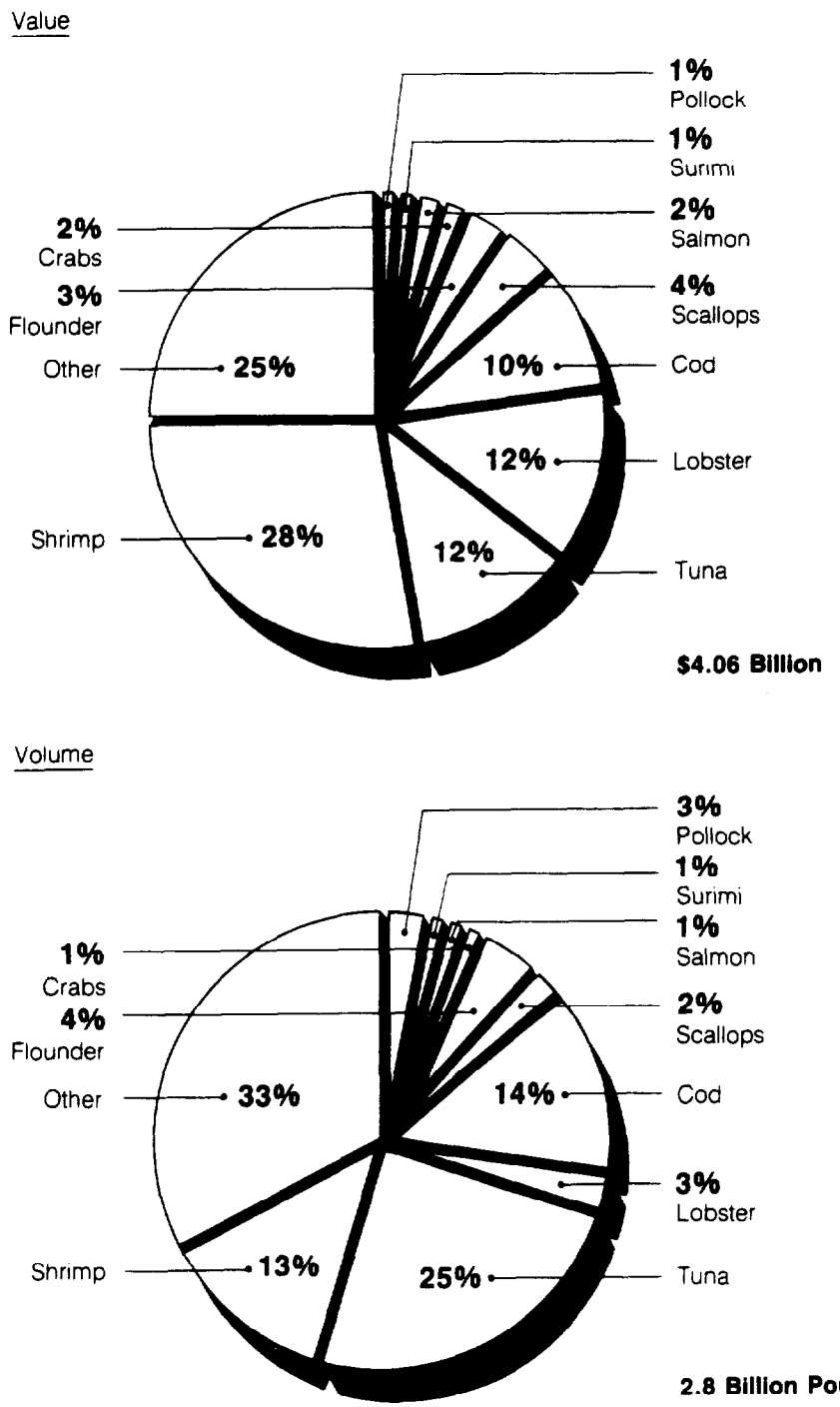
Figure 1.2: Seafood Prices Outpace Meat and Poultry Prices



Source: National Marine Fisheries Service.

According to NMFS, the typical U.S. household consumes four seafood species--tuna, shrimp, flounder, and cod. These four species comprised over 50 percent of the value and volume of edible seafood products imported in 1985. (See fig. 1.3.)

Figure 1.3: 1985 U.S. Seafood Imports by Species



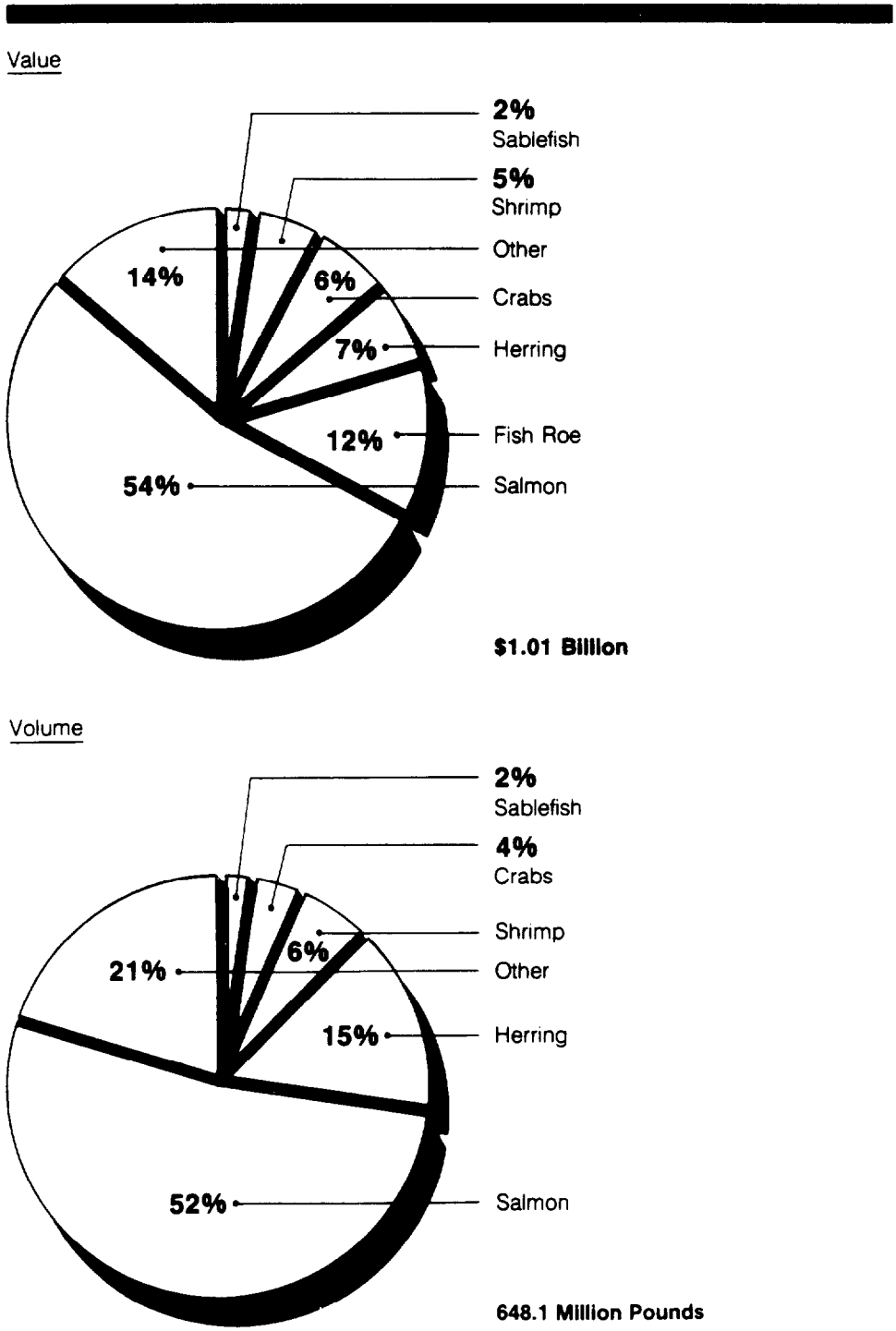
Note: "Other" includes all species, such as haddock and clams, that individually are less than 1 percent of the total.

Salmon is by far the most exported seafood species, comprising 54 percent of the value and 52 percent of the volume of U.S. seafood exports in 1985. Supply-constrained species (such as shrimp and crabs) and fish roe (primarily salmon and herring) comprised an additional 23 percent of 1985 export value. In addition, shrimp and crab account for about 10 percent of export volume. (See fig. 1.4.)

The remainder of 1985 exports, about 22 percent by value ($222 million) and about 37 percent by volume (240 million pounds) included a number of underutilized species such as eels, mackerel, mullet, pollock, sablefish, squid, and herring. Underutilized species are species that do not sell well in the United States but may be in high demand in other countries. Of the underutilized species, only herring and sablefish exports were over 1 percent of total export value and volume.

In 1985 foreign fishing fleets harvested 2.6 billion pounds of underutilized species from U.S. waters. Alaska pollock comprised 73 percent of the foreign catch and 3 percent of United States volume of U.S. seafood imports. In addition, joint venture catches by U.S. fishermen unloaded onto foreign vessels were 2 billion pounds valued at $104.3 million in 1985. Joint venture catches are not included in the export statistics.

Figure 1.4: 1985 U.S. Seafood Exports by Species



Note: "Other" includes all species, such as eels and mackerel, that individually are less than 1 percent of the total.

THE FEDERAL ROLE IN SUPPORT OF THE U.S. SEAFOOD INDUSTRY

Over the years, the U.S. seafood industry has received a variety of assistance form the federal government. Key federal legislation has aided the industry in developing harvesting capability and managing fishery resources; federal agencies are currently coordinating efforts to assist the seafood industry's marketing activities.

Major laws affecting the U.S. seafood industry

Of the federal laws that affect the U.S. seafood industry, the most prominent are the Magnuson Fishery Conservation and Management Act (1976) (MFCMA), American Fisheries Promotion Act (1980) (AFPA), and Section 405 of Public Law 98-623, enacted in 1984. Additional laws affect the harvesting and distribution sectors of the industy. These laws and their major provisions are described below.

Section 12108, Title 46 (derived from a 1793 statute)

--requires U.S. fishing vessels of 5 tons or more to be built in the United States.

The Fisheries Cooperative Marketing Act of 1934 (15 U.S.C. 521-522)

--permits fishermen and producers of aquatic products to act together in associations to collectively catch, produce, process, and market their products.

The Saltonstall-Kennedy Act, as amended (15 U.S.C. 713c-3)

--authorizes a grant program to help promote and develop fishery products and to conduct technological, biological, and other research pertaining to American fisheries. Thirty percent of the duties levied on imported fish are used to fund the program and

--requires that at least 60 percent of Saltonstall-Kennedy Act funds be allocated to industry-sponsored research projects, instead of projects sponsored by the federal government or universities.

The Magnuson Fishery Conservation and Management Act, as amended (16 U.S.C. 1801 et seq.)

--gives the United States management authority for fishery resources in waters beyond the 3-mile state line to 200 miles off the U.S. coastline;

--sets forth the nation's basic fisheries goals: conservation, management, and development;

--authorizes the Departments of State and Commerce to negotiate fishing agreements with foreign governments that regulate their fishing activities in U.S. waters;

--authorizes the collection of fees from foreign vessels fishing in U.S. waters, including a permit fee, an observer fee, and a pound fee for the value of the catch;

--requires that foreign nations' harvesting allocations in U.S. waters be tied to their willingness to accept U.S. fishery product imports. This is referred to as the "fish and chips" policy;

--establishes a procedure for the phased reduction of foreign fishing activity in U.S. waters to be administered by the Departments of State and Commerce; and

--provides that fishery management plans must be submitted to NMFS for each major fishery in each region of the country. These plans recommend the optimal yield attainable for each fishery. U.S. fishermen are allocated a target catch up to their harvesting capacity within this optimal yield. Any excess capacity may be allocated to foreign nations.

The American Fisheries Promotion Act (15 U.S.C 1511(b))

--mandates that the Secretary of Commerce appoint no fewer than six fishery trade officers overseas.

The Export Trading Company Act of 1982 (15 U.S.C. 4001-4003)

--allows small firms interested in exporting to develop export trade intermediaries without antitrust implications.

Section 405 of Public Law 98-623 of 1984

--makes marine fish and fish products eligible for certain Department of Agriculture financial assistance programs, specifically, Commodity Credit Corporation credit and Public Law 480, Food for Peace, programs.

Temporary Emergency Food Assistance Act of 1983, as amended (7 U.S.C. 612c note),

--mandates that the Secretary of Agriculture distribute excess domestically produced fresh and processed fishery products to eligible recipient agencies.

Federal agencies involved in seafood marketing

Many federal departments and agencies are involved with various aspects of the U.S. seafood industry. For example, the Department of State and the United States Trade Representative conduct trade negotiations involving seafood; the Food and Drug Administration periodically checks that seafood products are processed under sanitary conditions and are not adulterated; the Small Business Administration provides loans for new exporters; and the National Institutes of Health conducts research on seafood nutrition. The principal federal agencies that deal with seafood marketing activities are Commerce's National Oceanic and Atmospheric Administration (NOAA) and International Trade Administration (ITA) and USDA's Foreign Agricultural Service (FAS). Within NOAA, NMFS is responsible for implementing various programs relating to the seafood industry. ITA's United States and Foreign Commerical Service (US&FCS) is the organizational unit that works with other federal agencies and industries on domestic and overseas export activities. FAS is responsible for developing food markets abroad.

National Marine Fisheries Service

NMFS, headquartered in Washington, D.C., has five regional offices--Northeast (Gloucester, Mass.), Southeast (St. Petersburg, Fla.), Southwest (Terminal Island, Calif.), Northwest (Seattle, Wash.), Alaska (Juneau, Alaska)--and four research centers--Northeast (Woods Hole, Mass.), Southeast (Miami, Fla.), Southwest (LaJolla, Calif.), and Northwest and Alaska (Seattle, Wash.).

NMFS activities include

--collecting, analyzing, and disseminating biological, environmental, economic, and statistical data to achieve the optimum use of living marine resources for the benefit of the nation;

--developing and implementing domestic and international fishery management measures needed to optimize the use of living marine resources and development of the U.S. seafood industry (this activity includes negotiating access to foreign and international fishery resources and assisting the states in conserving and managing marine resources in U.S. territorial waters);

--providing technical assistance to state organizations and industry in such areas as product quality, safety, and financial services aimed at increasing domestic and international sale of fresh and processed fishery products;

--conducting market and product research, both in-house and through the Saltonstall-Kennedy grants program;

--participating in trade negotiations for reducing and/or eliminating tariff and nontariff barriers against the importation of U.S. seafood products;

--offering export marketing services, such as providing trade leads, market intelligence, trade shows, and trade missions;

--developing standards for seafood species;

--conducting product quality and safety research; and

--offering a voluntary inspection service.

In fiscal year 1985, NMFS' total budget was $167.9 million, of which $3 million went towards seafood development activities with an additional $9 million for Saltonstall-Kennedy industry development grants.

Office of Sea Grant

In addition, NOAA's Office of Sea Grant oversees the National Sea Grant program, which was established under Public Law 89-688 in October 1966. The program is jointly funded by federal and state governments and provides grants to colleges and private research institutions for research on the development and utilization of marine resources and technology. Total funding for fiscal year 1985 was $65.3 million of which the federal share was $39 million.

United States and Foreign Commercial Service

The United States and Foreign Commercial Service (US&FCS) was created in 1980 by the President's Reorganization Plan No. 3 of 1979, which transferred the authority for industry assistance, including assistance to the seafood industry, from the State Department to Commerce. US&FCS counsels U.S. businesses in exporting through its 47 district offices throughout the United States. In addition, it has more than 180 foreign commercial service officers and over 500 foreign nationals (foreign employees in the overseas posts) in 63 countries. In fiscal year 1985, US&FCS' budget was $69.6 million.

US&FCS' overall goals are to

--increase the number of U.S. firms that export their products and the number of foreign markets to which the firms export;

--provide businesses with information on foreign government procurements,

--provide export market information;

--promote and facilite U.S. firms participation in trade shows; and

--encourage and sponsor private sector and state governments' involvement in export promotional efforts.

US&FCS has a full-time fisheries trade coordinator detailed from NMFS to develop markets for fish and fishery products through the following activities:

--market research,

--participation in international trade shows and trade missions,

--development of guidelines for exports of fisheries products,

--analysis of trade and tariff barriers, and

--removal and reduction of trade barriers.

In fiscal year 1985, $200,000 in staff time at overseas posts was allocated for seafood export development activities, such as gathering market intelligence data and organizing trade shows, and $20,000 was allocated for travel and headquarters administrative support for the fisheries trade coordinator. Industry members attending overseas promotional trips paid for their participation and other fees. Industry users also pay for ITA's market research publications.

Foreign Agricultural Service

FAS, with headquarters in Washington, D.C., has field offices in 76 U.S. embassies around the world. Of the 643 FAS employees, about 100 are foreign agricultural attaches posted abroad. Nearly 160 foreign service nationals work with the attaches. In fiscal year 1985, FAS' budget was approximately $83.6 million, of which about $10,000 ($42,000 in fiscal year 1986) was budgeted for seafood market development.

FAS has the leading government role in developing foreign agricultural markets and in promoting American agricultural exports, including farmed fish. FAS also provides limited export assistance to other sectors of the seafood industry.

As part of its export services, FAS

--gathers and disseminates market information,

--seeks market access, and

--works to develop overseas markets and seek export sales.

Three FAS programs that have specifically helped to promote the sales of numerous U.S. agricultural products are the cooperator program, USDA's export credit program, and the Agricultural Information Marketing Service program (AIMS).

The cooperator program consists of market development projects conducted in cooperation with U.S. agricultural organizations and foreign industry groups or governments. FAS partially reimburses cooperators (U.S. agricultural trade associations and producer groups) for market development expenses. In fiscal year 1985, FAS' cooperator program expenditures were $29 million; cooperators claimed contributions of $30.8 million; and foreign industry groups or governments reported spending $34.9 million.

Cooperator programs normally promote either a single commodity or a group of related commodities. As of April 1986, FAS had agreements with about 50 cooperators to carry out over 5,400 market development activities in 130 foreign countries. To date, the Catfish Farmers of America is the sole FAS seafood-related cooperator. In 1985 it had a FAS budget of $10,000. In fiscal year 1986, it had a FAS budget of $42,000. During 1986, members of the trout, salmon, oyster, tropical fish, and crawfish aquaculture industries participated in FAS-sponsored market survey trips to Europe and the Far East to determine the market potential for a number of U.S.-produced aquaculture products and the feasibility of having one cooperator represent several different farmed-fish species. FAS paid for trip expenditures through the use of moneys (the $42,000 originally supplied by FAS) in the Catfish Farmers of America's fiscal year 1986 budget. FAS has one trade specialist who works less than half time on fish cooperator and other fish market development activities.

AIMS provides various types of trade leads and market intelligence for U.S. exporters. For example, an AIMS computerized communication system allows FAS to handle trade inquiries from foreign importers for specific products. Information is then passed on electronically and by mail to subscribing U.S. firms. AIMS' 1985 budget was approximately $167,000, of which about $69,000 was recovered through user fees. Of the 5,300 trade leads developed by FAS attaches in 1985, less than 2 percent were for seafood products.

In 1984, Public Law 98-623 amended several laws, making marine fish and their products eligible for selected USDA export

promotion and financial assistance programs. These programs include Public Law 480, Food for Peace Program, and the Commodity Credit Corporation (CCC) Export Credit Sales Program.

To date, no export marine fish sales have been made through these USDA export programs. A $3 million credit line guarantee for mullet to be sold to Egypt was opened under the CCC program in 1984. No transaction was made because the mullet season had already passed when the credit line guarantee was approved. The potential sale in 1985 was not completed because of a high fish price which, according to Commerce officials, was possibly due to hurricane activity in the fishing areas that led to low production.

SECTION 2

U.S. SEAFOOD MARKET DEVELOPMENT AND PROMOTION

This section discusses (1) the criteria for effective market development and promotion programs, (2) certain successful agricultural and seafood marketing efforts, (3) constraints to broadscale application of market development for the U.S. seafood industry, and (4) the current direction of U.S. seafood marketing.

CRITERIA FOR EFFECTIVE MARKET DEVELOPMENT AND PROMOTION PROGRAMS

During the past few decades, foreign seafood industry competitors and sectors of the U.S. agricultural food product industry have employed marketing-oriented techniques in order to increase sales. These techniques include identification of what potential customers want and development or modification of products and/or services to provide what customers want more efficiently and effectively.

Establishing an effective marketing program

The goal of the marketing program is to develop the mix of elements that results in the most efficient and effective products being offered for sale. Market research is used to identify what customers want. Market researchers investigate opportunities in domestic and world markets by evaluating, measuring, and interpreting the attitudes and behaviors of potential customers. Their findings are used to develop or modify products according to consumer preferences, thus giving the products a differential advantage over the competition.

Companies present the final products to customers in ways that attempt to integrate the elements of positive product image, efficient distribution network, competitive pricing, and effective promotion. Product image is affected by such variables as the product's quality, supply, name, and packaging. A distribution network is needed to ensure that the product is made available to customers. If a product is properly developed (i.e., has a positive product image), competitively priced, and efficiently distributed, promotion can increase sales by making customers aware of the product and its advantages.[1]

SUCCESSFUL AGRICULTURE AND SEAFOOD EFFORTS

Some sectors of the agriculture food product industry have successfully used marketing techniques. The cranberry and poultry

---

[1]For additional information on developing marketing-oriented criteria, see Ian Chaston, Marketing in Fisheries and Aquaculture (New York: Ospray Books, 1983), and Philip Kotler, et. al., The New Competition (New Jersey: Prentice-Hall, 1985).

industries are prime examples of effective marketing through focusing on the desires of the consumer. Some seafood firms have also used marketing techniques to improve their competitive positions.

Agricultural efforts

Before the 1970's, Americans generally considered cranberries a side dish, served as a sauce on most American Thanksgiving tables. The demand for the product was seasonal. In 1972 Ocean Spray Cranberries, Inc., a grower cooperative that currently produces 80 percent of the cranberries sold in the United States, decided to act on market research results that identified consumer demand for natural products. The cranberry cooperative expanded into the health drink area, with the slogan, "It's good for you, America." Since 1979 the cooperative has been the biggest U.S. seller of canned and bottled juice drinks. In the 1980's, Ocean Spray helped pioneer the paper bottle to meet strong consumer desire for a lunch box container. While the 800-member cooperative spent about $14 million on advertising and promotion in 1985, it received net proceeds of nearly $170 million, compared with about $23 million in 1976. Growers' cash prices received were boosted from below 15 cents a pound in the early 1970's to more than 40 cents in the 1980's.

The poultry industry experienced similar success. In 1930 a chicken dinner was a luxury. Per capita poultry consumption was 17.2 pounds per year, of which 15.7 pounds was chicken. After World War II, with the discovery and application by the industry of antibiotics and selective breeding, chicken consumption passed 30 pounds. The industry, however, was still production-oriented, producing one basic commodity--whole iced chickens. Through market research in the 1970's, the industry discovered that U.S. consumers would be receptive to innovations such as prepackaged parts and processed forms, and began marketing those products. Poultry firms became vertically integrated, controlling all facets of the production and marketing process, from hatchery and breeding plants to processing, delivery, and promotion. With integration, costs were kept down and individual firms were able to establish quality-control measures to consistently ensure quality products. In addition, firms developed innovative packaging to ease handling through the distribution system and secure longer shelf life in the supermarket. In 1985 U.S. per capita chicken consumption had risen to 58 pounds (69.7 pounds for all poultry).

Seafood efforts

Seafood firms that have succeeded in marketing their products have used techniques similar to those used by successful agricultural product industries. These firms are typically foreign, primarily from Japan, Iceland, and New Zealand. The major exception is the U.S. canned tuna industry. In 1985 canned tuna was consumed in 85 percent of U.S. households and

generated over $1.65 billion in sales revenue. The six largest firms spent about $30 million to publicize the products. But it has been 60 years since the entrepreneurs within the tuna industry successfully used point-of-sale promotions to get a public highly suspicious of white seafood varieties to try a low-cost alternative to the white meat of chicken. As competition for domestic and foreign markets and consumer food dollars in general has recently increased a few entrepreneurs within the U.S. seafood industry have become more marketing-oriented.

The Japanese seafood industry based its development of surimi (processed, minced fish meat) on extensive research of consumer tastes. At present Japan has a firm grip on the American surimi market. The Icelandic seafood industry has stressed quality control during processing and distribution. Thus, according to a noted fish marketing expert, the Icelandic industry has earned a reputation for having quality products, and Icelandic seafood commands a premium price in the marketplace.

The New Zealand fish industry has been successful in marketing for export a fish called orange roughy. Through market research the New Zealand Fishing Industry Board found that orange roughy meets the desires of a large segment of the U.S. population that really does not like fish very much but wants an easy to prepare, aesthetically pleasing, health food. The product is sold as a white, boneless fillet that withstands freezing and thawing so well that quality is easily preserved, even when shipped long distances. New Zealanders initially priced the product low and found strong demand for it in U.S. supermarkets.

Although the U.S. seafood industry is basically production-oriented, a few industry members in various seafood regions are focusing on improving product quality, distribution channels, and promotion. For example,

--Some Maine fishermen have developed their own quality standards, bypassing the traditional fish distribution network and selling to targeted customers willing to pay more for quality products. Direct marketing in this case helps maintain quality control and ensure satisfied customers.

--A group of Alaska processors formed the Alaska Factory Trawlers Association to promote frozen-at-sea Alaska pollock fillets. The frozen-at-sea process solved the quality problem of transporting soft fish to distant markets. According to the association's executive director, the immediate goal is to compete with the 80 million pounds of pollock imported annually, primarily from Korea and Poland. He added that the processors also plan to study export markets for future growth potential.

--At display auctions, fishermen "display" their catch to buyers who can survey the fish before bidding. In Portland, Maine, a fish display auction was opened in May 1986, and the Port Authority of New York and New Jersey has plans to open such an auction in 1987, giving buyers an opportunity to examine the fish before bidding. Although European fishermen have always displayed their catch to buyers, U.S. auction markets historically have not done so. The expectation is that those U.S. fishermen who properly handle their catch and provide an attractive display should receive higher prices for their catch than fishermen whose product had been damaged during handling. At the same time, because of the display, auction buyers will be better able to select the quality of seafood desired.

--A Washington State fisherman/processor has integrated the harvesting of wild and farmed salmon in his operation to meet the year-long demand from both his Japanese and American customers.

--A Boston area seafood and restaurant firm has successfully promoted monkfish. Monkfish has been popular in Europe for centuries but was believed to have limited market potential in this country, primarily because of its unsightly physical appearance. The firm's promotional effort focused on the fish's unique name and other distinctive qualities, such as the monkfish's tail, which produces a sweet, light-colored fillet that picks up the taste of lobster when mixed with lobster in stews and salads.

According to a 1982 Department of Commerce seafood exporting briefing document, seafood firms that are successful in marketing their products have the following characteristics:

--corporate management that is dynamic, entrepreneurial, and research-oriented;

--multiple operations and vertical integration to control harvesting, processing, and distribution;

--multispecies operations, in which facilities can handle different types of species and product forms; and

--technical and financial capabilities to bring new species and product forms to the market, from available but underutilized/undermarketed fishery resources.

CONSTRAINTS ON APPLYING MARKETING TECHNIQUES TO THE U.S. SEAFOOD INDUSTRY

Although some segments of the U.S. seafood industry have become marketing-oriented, the great majority remains production-oriented. Several organizational, investment, product, and legal constraints keep the risks of developing new products and markets high and keep the majority of U.S. seafood resources undermarketed.

Organizational constraints

The industry's organizational structure represents a major impediment to effective marketing of seafood products in domestic and export markets. Many of the organizational constraints are related to the industry's traditional, independent methods of operation. For example,

--Typically small, family-owned and operated boats cannot compete effectively with large foreign fishing fleets, whose craft are technologically superior and whose operators work in a cooperative manner.

--The U.S. seafood industry consists of many small independent fishermen who often do not share supply, demand, and price information. Without such information, it is extremely difficult to make good management, production, and marketing decisions.

Shortage of investment capital

The lack of capital also constrains the U.S. seafood industry from developing new marketing-oriented ventures.

--A 1978 NMFS report noted that the average U.S. seafood company does not allocate resources toward new ventures on a sustained basis until annual sales are about $50 million. In 1984 less than 1 percent of all seafood harvesting and primary processing companies had sales over $50 million.

--The risk of dealing with uncertain supplies of marine species discourages major food corporations from vertically integrating harvesting, processing, and marketing operations. Major food companies that have become directly involved in harvesting operations are investing in aquaculture, where supplies are more certain.

Quality uncertainty

Inconsistent quality and an absence of industry wide product descriptions have also hindered U.S. seafood industry market expansion efforts. For example,

--Many industry representatives told us that a major problem is the failure of many fishermen to recognize that proper handling can bring higher prices. They said that the traditional method of piling a week's or more catch in a pen and then unloading it with pitch forks inevitably leads to a high degree of deterioration. They noted that European firms, on the other hand, have been boxing their catch at sea for nearly 15 years. This process results in less deterioration and better quality fish at the front end of the marketing channel. When the fish is properly handled by processors, distributors, and retailers through the marketing channel, the quality of the product offered the consumer is enhanced.

--Product descriptions vary by region, leading to inconsistent labeling. For example, hake and pollock, both salt-water fish species unrelated to the snapper family, have been labeled as white or blue snapper in New York City fish markets. Thus, it would be difficult to undertake promotional efforts to build a product image for snapper when unrelated fish are being marketed under the same name. Building a product image is also difficult in export markets when a name translates poorly or has negative connotations in other cultures. For example, Alaska pollock was assigned a name by French authorities that identifies the species as a member of the hake family, thus forcing it to compete with Argentinian hake, which is lower in quality and price.

Legal and trade constraints

Other constraints on the seafood industry include (1) state and federal laws that restrict harvesting technology and (2) foreign trade barriers.

--Various conservation measures, primarily at the state level, restrict fishing areas, limit the type of gear to be operated, and set specific harvest seasons. Although these measures are important for long-term resource preservation, they also limit the range of harvesting methods and opportunities available to the industry.

--Section 12108, Title 46, does not allow American-owned fishing ships of 5 tons or more to participate in coastal fishing unless they were built in the United States.

According to industry representatives, foreign-built combination fishing/processing ships have been available at reasonable prices as a result of worldwide adoption of the 200-mile fishing limit. However, since these ships generally are over the weight limit, U.S. firms cannot use them in U.S. waters. According to a 1978 NMFS report, the restriction had great impact in the 1970's because it prohibited U.S. experimentation with foreign technology, increasing the riskiness of a decision to change to fishing/processing ships.

--Export programs are inherently risky because of foreign tariff policies, currency fluctuations, and other unknowns of world trade. For example, between 1979 and 1981, Commerce aided the Gulf of Mexico seafood industry in developing an export market in Venezuela. Annual sales peaked at $15 million before Venezuela's declining oil revenues caused the country to impose a tariff that, in effect, terminated the program.

CURRENT SEAFOOD MARKETING DIRECTIONS

According to NMFS and seafood industry officials, with 15 to 20 percent of the world's living marine resources in U.S. waters, the U.S. seafood industry has the resources available to expand both its domestic and international market shares. To do this, however, the industry needs to focus more on the desires of its domestic and world customers.

The seafood industry marketing specialists with whom we spoke emphasized that most U.S. seafood firms are concentrating on developing the domestic market. Many stressed that U.S. firms see greater growth potential in the domestic market as a result of recent reports of the health benefits of seafood and the low per capita consumption figures for seafood compared to other protein sources. They added that U.S. firms understand domestic consumers' purchase patterns better than those of foreign consumers and do not have to deal with import regulations, the strength of the dollar relative to other currencies, and other constraints on export marketing.

According to seafood marketing organizations, such as the National Fisheries Institute and the Massachusetts Division of Marine Fisheries, increasing domestic demand for U.S. seafood products depends on the industry's ability to provide consistent, high quality seafood products and to educate U.S. consumers on the nutritional value of seafood and the possible cost savings of adapting new species and product forms to their diets. NMFS and industry experts added that increased consumption of

lower-valued/underutilized species could make seafood a more affordable protein source to a greater number of consumers.

For those U.S. seafood firms pursuing export markets, industry marketing specialists noted that the greatest obstacle is breaking into already established markets. For example, the Executive Director of the Mid-Atlantic Fisheries Development Foundation told us that the typical small, independent U.S. seafood operation has difficulty providing the consistent, high quality, price-competitive products needed to gain a foothold in markets that are already supplied by reliable, well-organized foreign firms. A European seafood importer, who has had problems in the past with the quality of U.S. seafood shipments, said that if U.S. firms are to be successful in the export market, they must be willing to invest in researching the foreign markets and then provide products at or better than the price and quality levels already being provided by international competitors.

The $1 billion in 1985 seafood exports shows that foreign markets do exist for U.S. seafood products. But according to the US&FCS fisheries trade coordinator, if exports are to help reduce the trade deficit, more underutilized species--nontraditional species that do not sell well in the United States but may be in high demand in other countries--need to be exported. He said that exports of shrimp, crab, and other popular seafood species will not help reduce the trade deficit if the same species are also imported to meet domestic demand. In addition, he noted that increasing the level of value-added exports (i.e., processed seafood products) could help reduce the trade deficit by increasing the value of exported products.

A few U.S. seafood firms have taken advantage of foreign market opportunities by exporting some underutilized species. For example, dogfish, a small shark species, does not sell well in the United States became of its name and because it does not produce a good fillet. It is exported to England, however, where it is a prime ingredient of "fish and chips." Another nontraditional species, mullet, has become a commercially viable export item because of its roe. With the guidance of a regional NMFS marketing specialist who demonstrated the use of a special gutting knife for extracting roe, mullet processors have been able to export mullet roe since the early 1970's that meets Japanese quality standards. In addition, a Maryland eastern shore processing/marketing firm has successfully exported soft-shell crabs to Europe. The firm pays a premium price for high quality crabs and maintains strict quality controls. Its president credits a Small Business Administration grant and NMFS and ITA technical support that helped the firm gain visibility and attract customers at international trade shows.

In brief, some members of the U.S. seafood industry are beginning to use marketing-oriented techniques to develop

markets. In addition, although some progress has been made in export markets, industry experts agree that the most viable option for the industry may well be development of the domestic rather than export markets. Section III addresses the federal role in assisting industry efforts to become marketing-oriented.

markets. In addition, although some progress has been made in export markets, industry experts agree that the most viable option for the industry may well be development of the domestic rather than export markets. Section III addresses the federal role in assisting industry efforts to become marketing-oriented.