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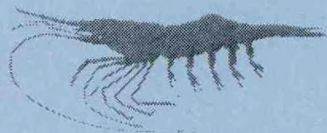
National Marine Fisheries Service

# SOUTHWEST REGION

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U.S. TRADE IN TUNA

FOR CANNING, 1987



by

Wes Parks

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and

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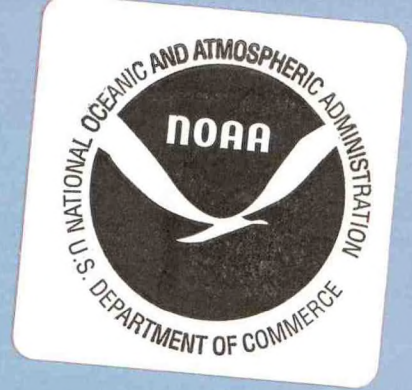


APRIL 1989

ADMINISTRATIVE REPORT SWR-89-01







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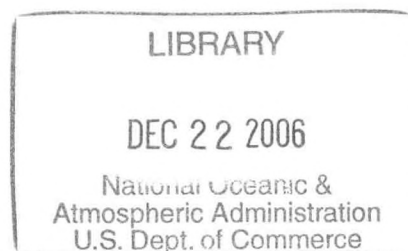
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## **U.S. TRADE IN TUNA FOR CANNING, 1987**

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# U.S. TRADE IN TUNA FOR CANNING, 1987

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## EXECUTIVE SUMMARY

U.S. tuna fleet activity, canned tuna processing, ex-vessel, wholesale and retail prices and imports in 1987 are described and compared to their counterparts in previous years. Industry statistics gathered from government agencies and industry contacts are presented in 14 figures and eight tables.

In 1987, U.S. tuna fisheries delivered 253,936 short tons (tons) of tuna to U.S. canneries. Domestic deliveries of albacore (white meat) tuna were 2,836 tons, down 20 percent from 1986 levels. Domestic deliveries of tropical (light meat) tuna (bigeye, blackfin, bluefin, skipjack and yellowfin) were 251,100 tons, up 12 percent.

Contract prices for tuna delivered by U.S. vessels to U.S. canneries increased dramatically in 1987. Depending on the size of fish in the delivery, ex-vessel prices of white meat tuna increased as much as 27 percent, prices of light meat tuna as much as 47 percent.

U.S. cannery receipts of imported and domestically caught raw frozen tuna for canning totalled 532,704 tons in 1987, up 2 percent from 1986 levels. U.S. cannery receipts of white meat tuna were 104,197 tons, down 10 percent from 1986. Imports made up 97 percent of the total cannery supply.

Total 1987 U.S. cannery receipts of raw, frozen light meat tuna were 428,507 tons, up 5 percent from 1986 levels. Imports made up 41 percent of the total cannery supply.

The 1987 U.S. pack of canned tuna was 33.6 million standard cases, up 3 percent from 1986. The pack of white meat tuna was 7.2 million standard cases, down 11 percent from 1986; the pack of light meat tuna was 26.4 million standard cases, up 7 percent. U.S. imports of canned tuna in 1987 were 10.8 million standard cases, down 11 percent from 1986 levels, the first time in recent years that imports have declined.

Per capita consumption of canned tuna in the United States was 3.5 pounds in 1987, down slightly from 1986. The retail composite price was \$2.26 per pound, unchanged from 1986.



## INTRODUCTION

This is the fifth annual review of the U.S. tuna canning industry prepared jointly by the Southwest Region and Southwest Fisheries Center. In this report we review the production by the industry in 1987 and the consumption of canned tuna by U.S. consumers.

The year 1987 was generally a good one for the U.S. tuna industry. Domestic cannery receipts and production were up, as were ex-vessel and wholesale prices.

The U.S. high seas tuna purse seine fleet experienced its best year since 1984 in terms of volume and value of landings. Although a small amount of domestic tuna was delivered to canneries from the western Atlantic, the most productive area for the U.S. fleet was the Pacific Ocean where purse seining was divided almost equally between western and eastern Pacific fishing grounds.

The west coast albacore fishery experienced yet another year of declining landings and domestically caught cannery receipts reached new lows for this decade. However, high ex-vessel prices and the successful development of the south Pacific fishery tended to offset negative effects of the poor west coast season.

Along with the shortfall in domestic albacore cannery receipts, and a ten percent decline in raw albacore imports, there was an eleven percent drop in domestic production of canned white meat tuna. However, a seven percent increase in production of light meat tuna resulted in an overall three percent rise in the total 1987 U.S. canned tuna pack of 33.6 million standard cases valued at slightly more than \$1 billion.

Imports of canned tuna into the United States were down 11 percent from 1986 levels, the first time in recent years that imports have declined. The total addition to U.S. canned supplies in 1987, U.S. production plus canned imports, was down one percent from 1986.

## WHITE MEAT (ALBACORE) TUNA

Albacore is the only species that may be canned as white meat tuna in the United States.<sup>1</sup> Approximately 21 percent of the total U.S. tuna pack in 1987 was albacore.

### Production by the U.S. albacore fleet

Historically, the U.S. albacore fleet has operated almost exclusively in the Pacific Ocean north of 25°N latitude and offshore from the west coast to approximately 180° longitude. For illustrative purposes, the area is often divided at 140° W longitude into offshore (mid-Pacific) and inshore fishing areas. Troll (jig) gear is the dominant gear used by U.S. fishermen.

Receipts at U.S. canneries in 1987 of north Pacific albacore caught by U.S. fishermen continued to decline (Figure 1). Receipts, 2,800 tons, were 20 percent less than 1986 receipts and 66 percent less than recent average (1982-1986) receipts (Table 1).

<sup>1</sup>U.S. Government Printing Office. 1985. 21 Code of Federal regulations. Section 161.190 (a) (4) (i).

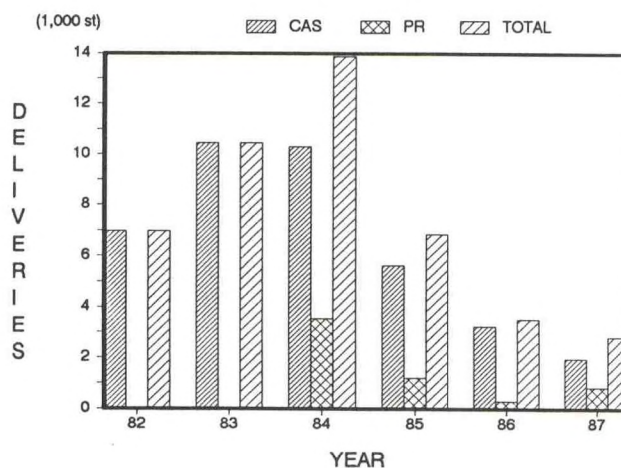


Figure 1. Deliveries (1000 st) of albacore to U.S. canneries by U.S. fishermen, 1982-1987 (CAS=California/American Samoa; PR= Puerto Rico).



Sixty-nine percent of the receipts of domestically caught albacore delivered to U.S. canneries was received at canneries in American Samoa and California (Figure 1, Table 1). The remaining 31 percent was transshipped to Puerto Rico from west coast ports. In addition, 841 tons of albacore caught by U.S. fishermen in the new south Pacific troll fishery were exported through Tahiti and an additional 300-400 ST were landed at west coast ports then exported to Fiji and Japan.

The contract price for domestically-caught albacore received at U.S. canneries increased dramatically in 1987 (Figure 2). Contract price was \$1,235 per ton for large fish (9 pounds and larger) at the beginning of 1987, 12 percent greater than the price at the beginning of 1986 (Table 2). The price for small fish (less than 9 pounds) was \$950 per ton, 27 percent greater than the 1986 price. By mid-year, the contract price had risen to \$1,400 per ton for large fish. The general shortage of fish inspired incentives and bonuses which brought the actual price to well over \$1,500 per ton.

Despite the drop in domestically caught receipts, greatly improved ex-vessel prices, the preponderance of large fish in landings and the general shortage of fish caused many landings to

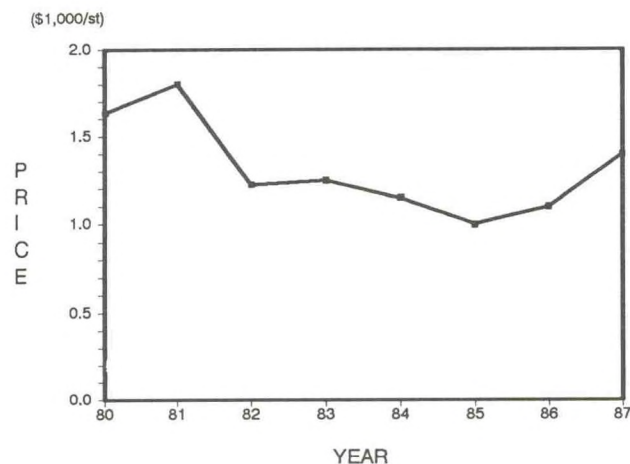


Figure 2. Contract price (1000 U.S. \$ per st) for representative size (9-18 lb) albacore paid by U.S. canneries to U.S. fishermen at the end of the year, 1980-1987.

bring premium prices and the aggregate ex-vessel revenue from the 1987 albacore fishery was 41 percent above that of 1986. Dividing ex-vessel albacore revenue by total cannery receipts yields a weighted ex-vessel price of \$1,496 per ton for U.S.-caught albacore in 1987, a 35 percent gain from 1986 (Table 3).

### U.S. processing of canned white meat tuna

The principal U.S. receiving and processing sites for both white and light meat tuna in 1986 were Mayaguez and Ponce, Puerto Rico; San Pedro, California; and Pago Pago, American Samoa. For reporting purposes, receipts and production data are combined for American Samoa and California.

Total receipts (U.S. caught plus imports) of raw albacore at U.S. canneries in 1987 were 104,197 tons, 10 percent less than 1986 receipts but 3 percent above recent (1982-1986) average receipts (Figure 3, Table 1). Seventy-four percent of the total receipts were delivered to canneries in Puerto Rico, 26 percent to canneries in American Samoa and California. Receipts at all locations were down in 1987.

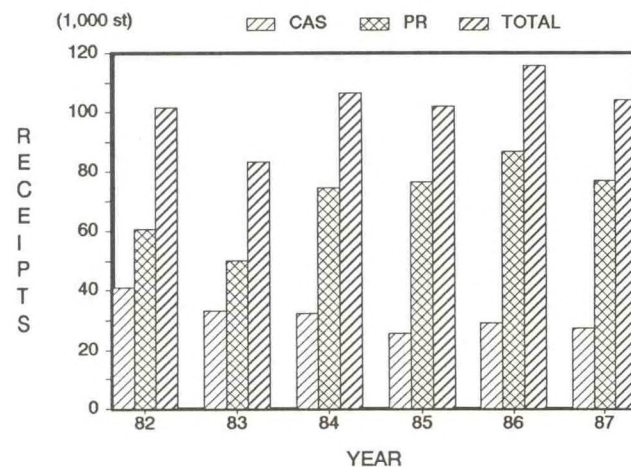


Figure 3. Receipts (1000 st) of albacore by U.S. canneries by cannery location, 1982-1987 (CAS= California/American Samoa; PR= Puerto Rico).



As in each of the last six years, imports made up the bulk, 97 percent, of U.S. cannery receipts of raw albacore in 1987 (Figure 4). Imports totaled 101,361 tons, a 10 percent decrease from 1986 (Table 1). Puerto Rico was the major receiving site for albacore imports with 75 percent of the total; American Samoa and California received the remainder. Imports received in Puerto Rico were 12 percent less than in 1986; imports received in American Samoa and California were essentially the same as in 1986. The principal transshipping point for imports was South Africa which accounted for 23 percent of total imports in 1987 (Table 4). Although the United States has embargoed imports of most South African products, transshipments of tuna caught by Taiwanese and Japanese albacore vessels have been permitted.

The value of imported raw albacore at U.S. canneries in 1987 was \$159.9 million, down 2 percent from 1986.<sup>2</sup> This corresponds to a weighted average price of \$1,578 per ton, 9 percent above the average price in 1986.

As in 1985 and 1986, the Atlantic Ocean was the source of most albacore received by U.S. can-

<sup>2</sup>Values of raw, imported tuna are computed using declared value reported by importers to the Bureau of Census and import volume compiled by Statistics and Market News Service, NMFS, Southwest Region.

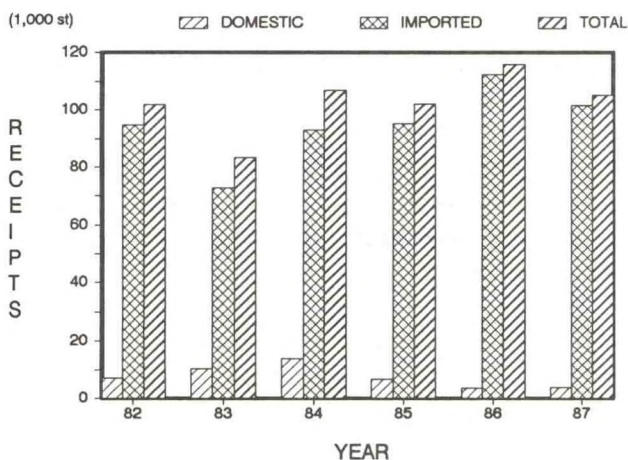


Figure 4. Receipts (1000 st) of albacore by U.S. canneries by source, 1982-1987.

neries in 1987 followed by the Pacific and Indian Oceans (Figure 5). All albacore received from the Atlantic and Indian Oceans consisted of imports. Receipts of albacore from the Atlantic Ocean decreased 20 percent from 1986, receipts from the Pacific decreased 5 percent, and those from the Indian Ocean increased 50 percent (Tables 5 and 6).

With the exception of 1986, the total 1987 U.S. pack of white meat tuna was the largest since 1978 (Figure 6). The 1987 U.S. pack, 7.2 million standard cases, was 11 percent less than the record 1986 pack (Table 7).<sup>3</sup>

During 1987, wholesale list prices for U.S.-produced, nationally advertised brands of white meat tuna ranged between \$55.40 and \$63.57 per standard case. With discounts, the actual wholesale price was \$49.40 and less for a standard case. Wholesale prices for private brands ranged between \$43.50 and \$51.50.

The value of the U.S. white meat pack was \$314 million (free on board plant value) in 1987, down 2 percent from 1986 (Table 7). Dividing

<sup>3</sup> A standard case consists of forty-eight 6.5 ounce cans or 19.5 pounds.

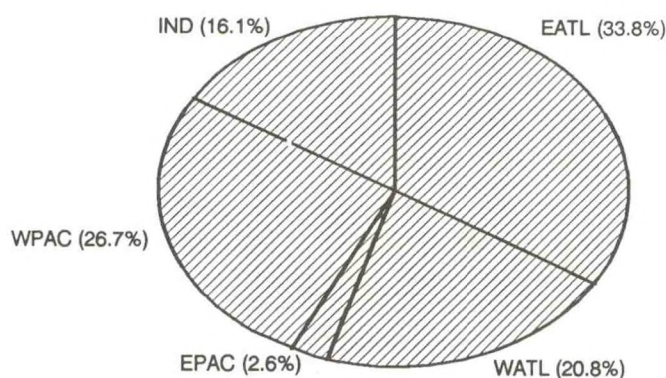


Figure 5. U.S. cannery receipts and direct exports (1000 st) of albacore by ocean of origin, 1982-1987 (EATL= Eastern Atlantic Ocean; WATL= Western Atlantic Ocean; EPAC= Eastern Pacific Ocean; WPAC= Western Pacific Ocean; IND= Indian Ocean).



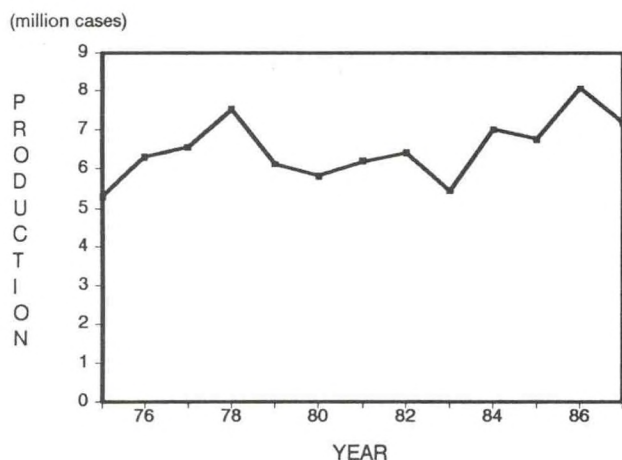


Figure 6. U.S. production (million standard cases) of canned white-meat tuna, 1975-1987.

value by production yields a weighted average price of \$43.71 per standard case in 1987, an increase of 10 percent over the average value in 1986.

## LIGHT MEAT TUNA

In the United States, blackfin, bluefin, bigeye, skipjack and yellowfin tuna are collectively canned as light meat tuna. Seventy-nine percent of the U.S. tuna pack in 1987 was light meat tuna. The 6.5-ounce can of chunk style, light meat tuna in water has for several years been the most popular tuna product consumed in the United States.

### Production by the U.S. tropical tuna fleet

The U.S.-flag, tropical tuna fleet consisted of 85 vessels with an overall carrying capacity of 88,252 tons at the start of 1987: 80 purse seiners and 5 baitboats (pole-and-line gear). By the end of 1987, the fleet had declined to 83 vessels, 76 purse seiners and 7 baitboats, with a total carrying capacity of 81,279 tons. Nine of these 83 vessels were inactive.

During 1987, the U.S. tuna fleet operated almost exclusively in the Pacific Ocean. There were 34 vessels active in the western Pacific during the

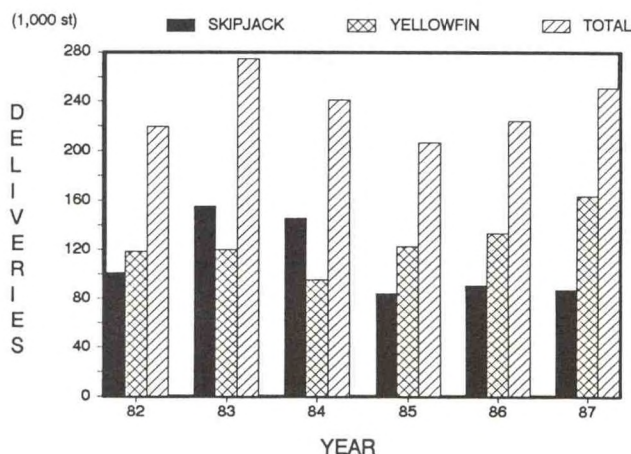


Figure 7. Deliveries (1000 st) of light-meat tuna to U.S. canneries by U.S. fishermen, 1982-1987.

first quarter with a combined carrying capacity of 41,255 tons. By the end of the year the number in the western Pacific had declined to 29 vessels, with a capacity of 35,875 tons, a 15 percent decrease in number and a 13 percent decrease in capacity. Thirty-five vessels with a total carrying capacity of 33,263 tons operated in the eastern Pacific during the first quarter, increasing to 45 vessels with a capacity of 37,829 tons by the end of the year, a 22 percent increase in number and a 12 percent increase in capacity.

Receipts of domestically caught, light meat tuna at U.S. canneries in 1987 were the highest since 1983 (Figure 7). Receipts, 251,100 tons, were 12 percent above 1986 receipts and 8 percent above recent average receipts (Table 1). As in 1985 and 1986, receipts of yellowfin tuna exceeded skipjack receipts comprising 65 percent of the total. Yellowfin receipts (includes small amounts of bigeye, bluefin and blackfin tuna) increased 23 percent over 1986 receipts while skipjack receipts decreased 4 percent.

Sixty-three percent of domestic receipts were to American Samoa and California canneries, 37 percent to Puerto Rico canneries.<sup>4</sup> Receipts at

<sup>4</sup>The majority of landings in the category American Samoa/California are in American Samoa. The category is used to maintain confidentiality.



American Samoa and California in 1987 were 158,734 tons, up 23 percent from 1986 receipts. Receipts to Puerto Rico were 92,366 tons, down 3 percent from 1986.

In addition to receipts at U.S. canneries, U.S.-flag vessels exported 16,256 tons of skipjack tuna and 12,866 tons of yellowfin tuna to foreign canneries in 1987, down 27 percent (skipjack) and up 12 percent (yellowfin) from 1986.

Owing to the increased world-wide demand for raw tuna, contract ex-vessel prices for frozen light meat tuna increased dramatically in 1987 (e.g., up 47 percent for yellowfin greater than 20 lb.) (Figure 8). In January, contract ex-vessel prices (without quality adjustments) for frozen light meat tuna in all species and size categories were at the low levels of the end of 1986 (Table 2). As a result, vessels that chose to sail without contracts were able to command premiums of \$20 to \$40 per ton, or more, above the contract prices. For a short period in the fall of 1987 differentials of \$300 or more were reported. Contract prices rose through July then held steady through the remainder of the year.

Total ex-vessel revenue generated by U.S.-caught light meat tuna was approximately \$ 208.6 million in 1987, 35 percent greater than in 1986.

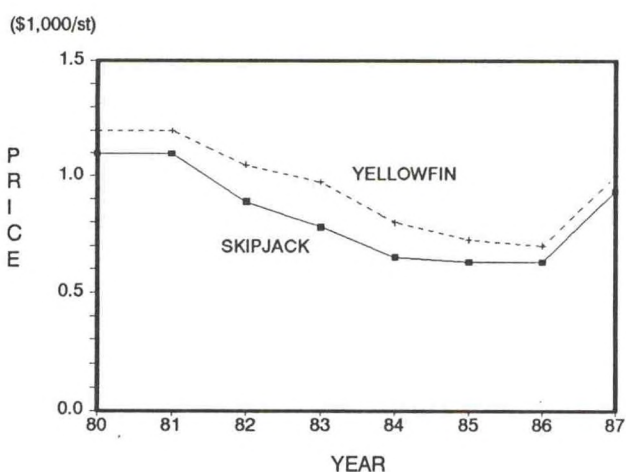


Figure 8. Contract price (1000 U.S. \$ per st) for representative size skipjack (4-7.5 lb) and yellowfin (7.5-20 lb) tuna paid by U.S. canneries to U.S. fishermen at the end of the year, 1980- 1987.

Ex-vessel value of domestically caught skipjack tuna delivered to U.S. canneries was \$ 62.5 million, up 12 percent from 1986. Dividing total value by total receipts yields a weighted ex-vessel price of \$ 716 per ton, a 16 percent increase from 1986 (Table 6). The value of domestic receipts of yellowfin tuna was \$146.1 million in 1987, 48 percent above 1986. The weighted ex-vessel price for yellowfin tuna in 1987 was \$ 892 per ton, an increase of 20 percent from 1986.

### U.S. processing of canned, light meat tuna

Total receipts (U.S.-caught plus imports) of raw light meat tuna at U.S. canneries in 1987 were at their highest levels since 1983 (Figure 9). Receipts were 428,507 tons, up 5 percent from both 1986 and recent (1982-1986) average receipts (Table 1). Fifty-three percent of total deliveries were made to canneries in Puerto Rico, 47 percent to canneries in American Samoa and California. Receipts to Puerto Rican canneries were 8 percent less than in 1986. Receipts at American Samoa and California canneries were 25 percent more than in 1986.

As in 1985 and 1986, receipts of yellowfin exceeded receipts of skipjack (Figure 10). Forty-

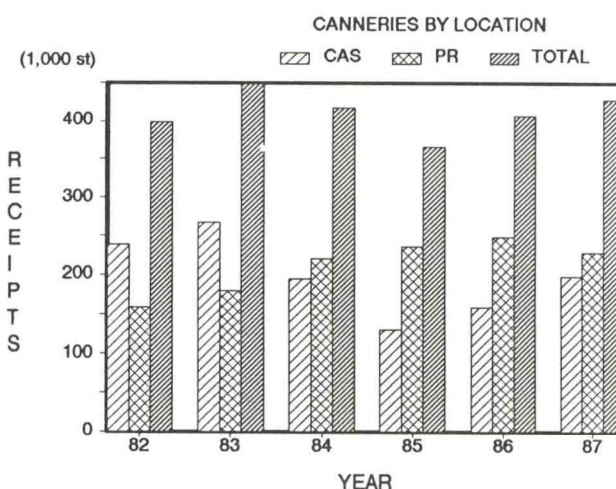


Figure 9. Receipts (1000 st) of light-meat tuna by U.S. canneries by cannery location, 1982-1987 (CAS= California/ American Samoa; PR= Puerto Rico).



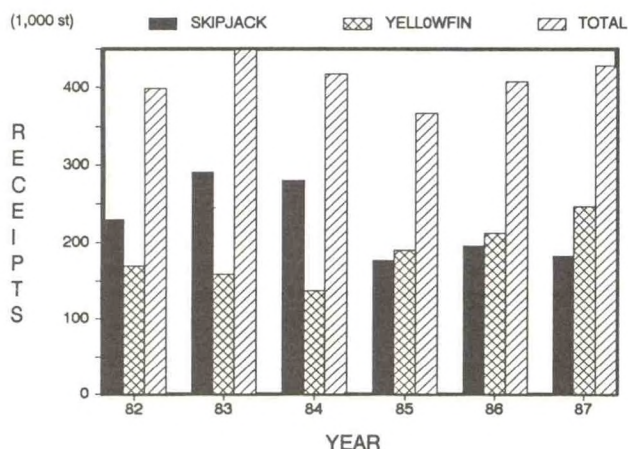


Figure 10. Receipts (1000 st) of light-meat tuna by U.S. canneries by species, 1982-1987.

three percent of deliveries were of skipjack, 57 percent of yellowfin.

Domestic receipts of raw light meat tuna at U.S. canneries in 1987 continued to exceed imports (Figure 11). Imports, 177,407 tons, made up 41 percent of total raw light meat receipts in 1987 versus 45 percent in 1986 (Table 1).

Puerto Rico was the major receiving site for imports of raw light meat tuna during 1987 accounting for 77 percent of the total, compared to 83 percent in 1986 (Table 1). Skipjack made up

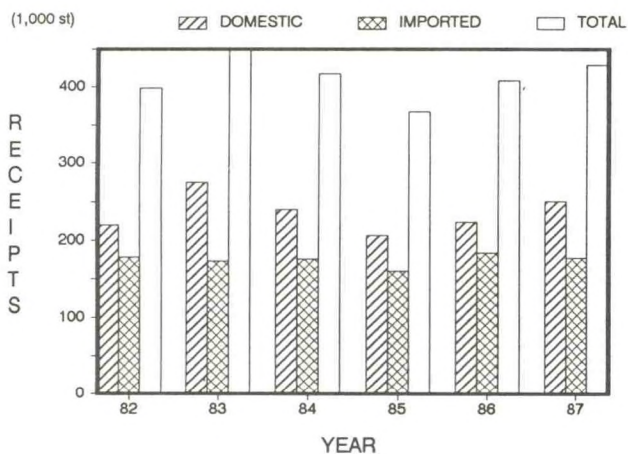


Figure 11. Receipts (1000 st) of light-meat tuna by U.S. canneries by source, 1982-1987.

54 percent of the 1987 light meat imports with yellowfin tuna providing the balance. Overall, skipjack tuna imports were down 9 percent from 1986, while yellowfin imports increased 4 percent.

The principal transshipping point for raw light meat tuna imported to the United States in 1987 was the Seychelles, the base of the Indian Ocean French and Spanish purse seine fleets (Table 4). Of total imports, 16 percent, 27,508 tons, was trans-shipped at the Seychelles. South Korea was second followed by transshipments from the Ivory Coast.

Mexico exported 19,405 short tons of Mexican caught (does not include non-Mexican caught, transshipped fish) light meat tuna to the United States in 1987, the first full year after the United States embargo on imports of Mexican-caught tuna and tuna products ended. When the embargo was lifted, Mexico agreed to voluntarily limit its exports of tuna products to the United States for three years, beginning September 1, 1986. At the end of the first agreement year, August 31, 1987, Mexican exports to the United States totalled 15,100 metric tons (approximately 16,600 short tons), less than the agreed total of 17,500 metric tons (19,200 short tons). The agreement calls for limits of 22,500 metric tons (24,000 tons) and 27,500 metric tons (30,300 tons) in the second and third years.

The total value of raw light meat tuna imports in 1987 was \$135.2 million, down 10 percent from 1986. Skipjack imports were valued at \$64.6 million, a decrease of 19 percent from 1986. Yellowfin imports were valued at \$70.6 million, the same as in 1986. The weighted average price of imported skipjack tuna was \$679 per ton, a decrease of 11 percent from the 1986 price. The price for imported yellowfin tuna was \$857 per ton, a 5 percent decrease.

The Pacific Ocean continued to be the primary source of all light meat cannery receipts and U.S. direct exports of light meat tuna in 1987 followed by the Atlantic and Indian Oceans (Figure 12). Total receipts and direct exports were 457,629 tons of which the Pacific provided 85 percent (Tables 5,6).



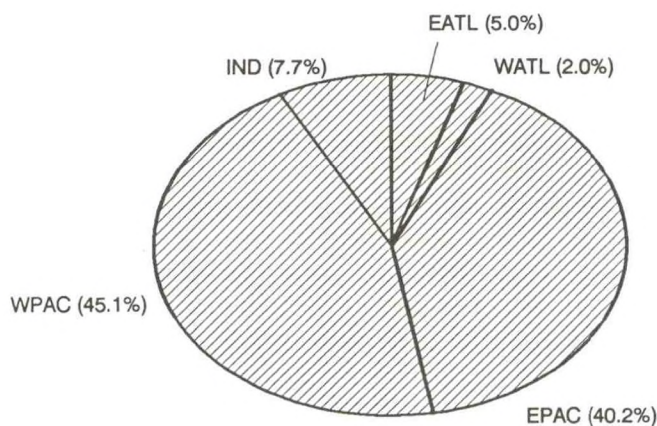


Figure 12. U.S. cannery receipts and direct exports (1000 st) of light-meat tuna by ocean of origin, 1982-1987 (EATL= Eastern Atlantic Ocean; WATL= Western Atlantic Ocean; EPAC= Eastern Pacific Ocean; WPAC= Western Pacific Ocean; IND= Indian Ocean).

On a regional basis, the western Pacific was the leading production area for U.S. cannery receipts plus direct exports of light meat tuna, with 206,483 tons. Of this total, 77 percent (158,133 tons) was domestically caught and the remainder imported. Skipjack tuna was the predominant species in western Pacific receipts plus exports (57 percent of the total). Other oceanic regions contributing, in order of importance, were the eastern Pacific (primarily domestically caught yellowfin tuna), the Indian Ocean (primarily skipjack imports), the eastern Atlantic, and the western Atlantic.

In 1987 the U.S. pack of canned light meat tuna was at its highest level since 1978 (Figure 13). The pack was 26.4 million standard cases, up 7 percent from 1986 (Table 7).

The wholesale list price of U.S. produced, advertised, light meat tuna ranged between \$34.20 and \$45.00 a standard case, but with discounts the price fell as low as \$26.00 a case during the year. Wholesale list prices for private-label light meat tuna ranged between \$23.00 and \$31.50.

Total production of canned light meat tuna, both advertised and private label brands, was valued at \$704 million (FOB plant value) in 1987, up 26

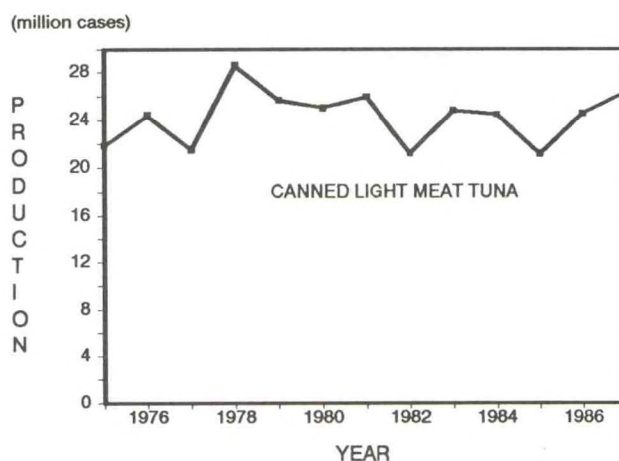


Figure 13. U.S. production (million standard cases) of canned light-meat tuna, 1975-1987.

percent from 1986. The weighted average price was \$26.70 per standard case, an increase of 17 percent from 1986.

## U.S. IMPORTS OF CANNED TUNA

Foreign processed canned tuna packed in oil is subject to a 35 percent tariff and, as in previous years, imports in 1987 were negligible. Foreign processed canned tuna not in oil is under a tariff rate quota which allows imports of up to 20 percent of the previous year's domestic production to enter at 6 percent ad valorem; imports above the quota level enter at 12.5 percent ad valorem.

After increasing every year since 1977, imports of canned tuna declined in 1987 (Figure 14). Imports totaled 105,800 tons or approximately 10.8 million standard cases, a decrease of 11 percent from 1986 (Table 7). The 1987 quota on canned imports not in oil was 45,750 tons (4.7 million standard cases) and was reached on April 4. Imports of light meat tuna in water were 91,000 tons (9.4 million standard cases) in 1987. Imports of white meat tuna in water were 14,700 tons (1.4 million standard cases). Imports of canned tuna in oil, practically all light meat tuna,



(million cases)

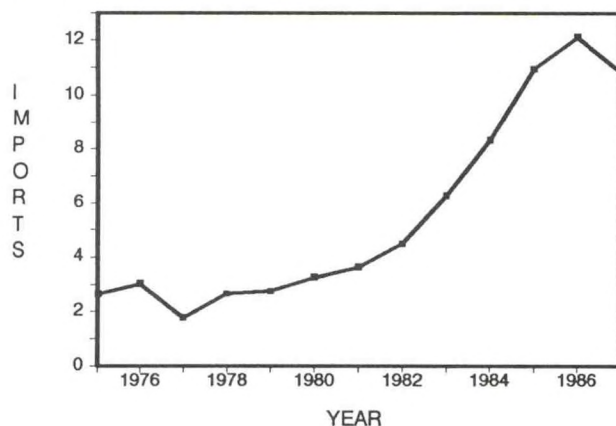


Figure 14. U.S. imports (million standard cases) of canned tuna, 1975-1987.

totaled 164 tons (16.8 thousand standard cases), a decrease of 29 percent from 1986.

Thailand, Taiwan and the Philippines were the major exporters of canned tuna to the United States in 1987 (Table 8). Thailand was the leader, shipping 73,400 tons (7.5 million standard cases), 70 percent of total 1987 U.S. imports.

The value of imported, canned tuna in 1987 was \$207 million (FOB plant value not including duty) (Table 8). The weighted average price of imports was \$1,940 per ton or \$18.87 per standard case, the same as in 1986.

## U.S. CONSUMPTION OF CANNED TUNA

Per capita consumption of canned tuna products in the United States for 1987 (excluding non-civilian consumption) was 3.5 pounds, 3 percent less than in 1986. According to industry reports, tuna was consumed at a ratio of approximately 22 percent white meat and 78 percent light meat. Therefore, 1987 per capita consumption of white meat tuna was 0.77 pounds or 1.9 standard cans, 1 percent less than in 1986. Per capita consumption of light meat tuna in 1987

was 2.73 pounds or 6.7 standard cans, 4 percent less than in 1986.

The retail composite canned tuna price (an average weighted by volume of product type) was \$2.26 per pound in 1987, unchanged from 1986. The composite price for canned white meat tuna was \$3.21 per pound; the price for light meat tuna was \$1.99 per pound. Based on per capita consumption, 1987 U.S. per capita expenditure for canned tuna was \$7.91, \$2.47 for white meat tuna, \$5.44 for light meat tuna.

## DISCUSSION

Overall, 1987 was a good year for the U.S. canned tuna industry. Worldwide, the demand for canned tuna, and hence raw tuna, was up while harvests in some areas were down. This contributed to the increases in ex-vessel and wholesale prices.

In the face of continuing declines in landings by the U.S. albacore fleet from its traditional west coast grounds, efforts to develop new grounds began in 1986 and seem on the verge of success. In 1987, larger U.S. trollers alternated between north and south Pacific fishing grounds, fishing in each during the respective summers. Between January and April, 1987, seven U.S. trollers conducted exploratory fishing in the central south Pacific catching approximately 841 tons of albacore. Catches were landed in Tahiti and purchased by a French company at an average price of \$1,300 per ton. As a result of successful exploratory fishing in 1986 and 1987, 45 U.S. vessels plan to participate in the fishery in 1988.

The importance of the western Pacific to the U.S. tropical tuna purse seine fleet continued in 1987 — roughly 40% of the fleet operated in the western Pacific at least part of the year. In 1987, an agreement was reached between the United States and South Pacific nations allowing U.S. vessels access to south Pacific fishing zones. In recent years, the U.S. purse seine fleet for tropical tunas has increasingly fished in the western Pacific. Many Pacific island states claim jurisdiction over tuna to 200 miles from their coasts and,



in the early 1980's, several U.S. vessels were seized for fishing in claimed island exclusive fishing zones. Since the United States does not recognize national jurisdiction over tunas beyond 12 nautical miles from coastlines, these incidents triggered retaliatory U.S. embargoes on imports of tuna products from the seizing nations as provided for by the Magnuson Fishery Conservation and Management Act.

To resolve these problems, the United States opened negotiations for a regional licensing arrangement with 16 Pacific island states. In April 1987, the parties signed a treaty formalizing the arrangement. The U.S. South Pacific Tuna Act of 1988, implementing provisions of the treaty, subsequently became law in June 1988. Under terms of the treaty, the Pacific island states will allow U.S. vessels fishing rights within fishing zones of a large region of the south Pacific Ocean. The U.S. tuna industry will provide \$2 million in license fees and technical assistance to the South Pacific states in the first year of the treaty, through the South Pacific Forum Fisheries Agency (FFA). Associated with the treaty is an agreement between the United States and FFA under which the United States will provide economic assistance of \$10 million per year for five years.

Production of light meat tuna, particularly from the Atlantic and Indian Oceans, was down in 1987, creating tight supplies in a strong global market and, as a result, higher ex-vessel prices. The U.S. fleet experienced improved landings, and therefore a significant increase in earnings. While these circumstances meant that U.S. canners paid more for raw tuna, they also faced less competition from imports of canned tuna which translated into increased demand and higher prices for domestically packed tuna.

The movement of U.S. tuna canneries to offshore sites began in 1982, and in 1987, the only cannery in the conterminous United States was

one small operation in California. The shift to less costly offshore processing in American Samoa and Puerto Rico was motivated by the need to reduce processing costs to compete with imported canned product from low-labor areas in the far East. Inroads of less expensive imports grew and imports market share increased from 6 percent in 1977 to 14 percent in 1982. Even substituting less expensive offshore domestic processing did not stem the increase and import share increased to 28 percent in 1985. Then, in 1986, import market share declined to 27 percent as domestic production increases surpassed import increases. The trend continued in 1987 as import volume declined for the first time since 1977, and import market share declined to 24 percent.

The U.S. dollar weakened against foreign currencies in 1987, and European markets for canned tuna expanded allowing U.S. processors to compete more effectively with their foreign counterparts. Much of the foreign processed and foreign caught raw tuna entered European rather than U.S. markets because the European tuna industry, being much more vulnerable to the shortfall in raw tuna production from the Atlantic and Indian Oceans, was unable to satisfy this growth in demand for canned tuna.

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Table 1.-U.S. tuna cannery receipts (short tons) by processing site and direct exports, 1982-87.

California/American Samoa/Hawaii/														
Species	Puerto Rico													
	1982	1983	1984	1985	1986	1987	82-86 Avg.	1982	1983	1984	1985	1986	1987	82-86 Avg.
Domestic:														
Albacore	6,965	10,466	10,323	5,608	3,231	1,971	7,318	-	4	3,565	1,245	296	865	1,022
Skipjack	82,669	113,465	94,152	66,716	71,803	75,210	85,762	18,781	41,608	51,441	17,304	18,802	12,105	29,587
Yellowfin 2/	93,468	90,052	59,907	35,365	57,120	83,524	67,182	24,800	30,044	35,193	87,571	75,941	80,261	50,710
Total	183,102	213,983	164,382	107,689	132,154	160,705	160,262	43,581	71,656	90,199	106,120	95,039	93,231	81,319
Imported:														
Albacore	33,928	22,750	21,962	20,030	25,811	25,468	24,896	60,670	50,105	70,882	75,122	86,481	75,893	68,652
Skipjack	45,837	50,633	28,737	18,026	18,590	22,618	32,365	82,178	84,675	106,136	74,606	86,441	72,440	86,807
Yellowfin 2/	17,811	14,081	12,685	10,169	11,875	18,384	13,325	33,402	24,251	29,045	57,192	67,260	63,965	42,230
Total	87,576	87,464	63,384	48,225	56,276	66,470	70,586	176,250	159,031	206,063	206,920	240,182	212,298	197,689
Grand Total	280,678	301,447	227,766	155,914	188,430	227,175	230,848	219,831	230,687	296,262	313,040	335,221	305,529	279,008
Direct Exports														
Total														
Species	1982	1983	1984	1985	1986	1987	82-86 Avg.	1982	1983	1984	1985	1986	1987	82-86 Avg.
Domestic:														
Albacore	62	-	108	-	-	841	34	7,027	10,470	13,996	6,853	3,527	3,677	8,374
Skipjack	387	45	15,388	19,669	22,207	16,256	11,539	101,837	155,118	160,981	103,689	112,812	103,571	126,888
Yellowfin 2/	3,864	538	16,980	15,128	11,539	12,866	9,610	122,132	120,634	112,080	138,064	144,600	176,651	127,502
Total	4,313	583	32,476	34,797	33,746	29,963	21,183	230,996	286,222	287,057	248,606	260,939	283,899	262,764
Imported														
Albacore	-	-	-	-	-	-	-	94,598	72,855	92,844	95,152	112,292	101,361	93,549
Skipjack	-	-	-	-	-	-	-	128,015	135,308	134,873	92,632	105,031	95,058	119,172
Yellowfin 2/	-	-	-	-	-	-	-	51,213	38,332	41,730	67,361	79,135	82,349	55,554
Total	-	-	-	-	-	-	-	273,826	246,495	269,447	255,145	296,458	278,768	268,275
Grand Total	4,313	583	32,476	34,797	33,746	29,963	21,183	504,822	532,717	556,504	503,751	557,397	562,667	531,039

Note: Cannery receipts include imported and domestically caught tuna delivered to U.S. processors. Excluded are U.S. caught tuna destined for export or for the fresh tuna market and imported tuna destined for the fresh tuna market or designated as "flakes" and "not fit for human consumption." Direct exports include U.S. caught tuna landed directly in, or transshipped to a foreign country; excludes tuna exported from the U.S. east and west coasts.

1/ Although no canned tuna was processed in Hawaii in 1987, the Am.S/Ca/Hi designation is maintained for 1987 in order to make historical comparisons

2/ Includes Bigeye, Blackfin, and Bluefin tuna.

Source: Statistics and Market News, Southwest Region, NMFS, NOAA.



Table 2.-U.S. cannery exvessel (contract) prices (dollars per short ton) at California and Puerto Rico, 1980-87.

Year	Albacore			Skipjack			Yellowfin			
	9 lbs. and over	Less than 9 lbs.	Greater than 7.5 lbs.	4-7.5 lbs.	3-4 lbs.	Less than 3 lbs.	Greater than 20 lbs.	7.5-20 lbs.	4-7.5 lbs.	Less than 3 lbs.
1980	1,610	1,610	850	850	700	545	950	950	810	810
	1,635	1,635	1,100	1,100	1,000	800	1,200	1,200	1,100	1,100
1981	1,800	1,800	1,100	1,100	1,000	800	1,200	1,200	1,100	1,100
1982	1,425	1,425	1,100	1,100	1,000	800	1,200	1,200	1,100	1,100
	1,225	1,000	1,040	1,040	940	740	1,140	1,140	1,040	1,040
			890	890	700	500	1,170	1,050	890	890
1983 1/	1,250	975	950	850	700	420	1,230	1,050	850	700
			900	800	640	420	1,125	990	800	640
			880	780	585	250	1,125	975	780	585
1984 1/	1,400	1,125	830	730	500	250	1,085	950	730	500
	1,150-1,300	875-1,025	850	750	550	250	1,000	900	750	550
			763	650	470	235	925	800	650	470
1985 1/	1,300	950	708	610	435	200	865	753	610	435
	1,150	800	738	640	500	275	870	758	640	500
	1,000	800	650	590	490	290	815	715	590	490
			700	630	500	300	825	725	630	500
1986 1/	1,100	750	700	630	500	300	780-800	700	630	500
			685	615	485	285	765	685	615	485
			700	630	500	300	780	700	630	500
1987 1/	1,235	950	685-700	615-630	485-500	283-300	765-780	685-700	615-630	485-500
	1,400	950	700-750	630-700	500	300	780-880	700-750	630-700	500
			750	700	500	300	880	750	700	500
			1,000	937	725	450	1,125	1,000	937	725

1/ Skipjack and yellowfin contract prices may be adjusted at the time of unloading depending upon salt content, temperature of the fish, physical condition of the fish and other quality criteria.

Source: Statistics and Market News, Southwest Region, NMFS, NOAA.

Table 3.-U.S. cannery exvessel (weighted) prices (dollars per short ton), 1980-87.

Year	Albacore		Skipjack		Yellowfin	
	Nominal	Real <u>1/</u>	Nominal	Real <u>1/</u>	Nominal	Real <u>1/</u>
1980	1,659	1,929	1,063	1,236	1,180	1,372
1981	1,800	1,908	1,030	1,092	1,170	1,241
1982	1,387	1,387	965	965	1,123	1,123
1983	1,268	1,220	799	769	1,032	993
1984	1,252	1,160	760	704	982	910
1985	1,087	975	622	558	820	735
1986	1,108	968	616	538	743	649
1987	1,496	1,273	716	609	892	759

1/ Adjusted for inflation using GNP implicit price deflator (1982=100).

Source: Statistics and Market News, Southwest Region, NMFS, NOAA.



Table 4.-Cannery imports of frozen tuna (short tons) by country of origin, 1982-87.

Source <sup>1/</sup>	1982		1983		1984		1985		1986		1987	
	White	Light <sup>2/</sup>	White	Light	White	Light	White	Light	White	Light	White	Light
Brazil	1,443	16,181	1,185	15,154	2,018	7,743	710	15,282	218	12,327	373	3823
Canary Island	1,693	1	7,653	5	14,030	10	9,415	16	9,184	20	5,802	9
Cayman Island	-	6,723	-	-	-	9,960	-	11,031	-	8,605	-	4,706
Ecuador	-	-	-	2,809	-	12,034	-	18,722	-	16,365	-	12,108
Ghana	1,078	27,783	345	23,751	170	6,640	-	-	-	-	-	-
Ivory Coast	-	27,862	-	13,783	289	30,997	-	15,887	-	23,549	297	23,090
Japan	5,834	12,705	696	18,426	10,946	20,965	6,754	718	4,396	922	1,188	-
Mauritius	4,811	-	4,668	-	5,026	-	5,789	-	6,708	12	8,059	87
Mexico	-	-	-	-	-	-	-	-	-	3,331	-	19,405
Neth. Antilles	10,054	1,996	8,560	258	9,619	298	12,110	197	14,723	442	8,246	255
Panama	-	29,558	1	8,110	424	13,928	-	15,138	-	24,684	-	7,205
Philippines	-	5,923	-	6,476	-	1,327	-	-	-	-	-	-
Reunion	12,036	146	7,438	3	4,363	67	1,521	756	3,605	232	2,629	2,643
Seychelles	-	-	-	3,042	-	8,257	262	17,064	-	30,866	51	27,508
Singapore	1,386	3,846	4,217	3,761	5,024	-	2,562	-	284	-	6,022	-
Solomon Island	-	928	-	10,600	-	15,836	-	3,390	-	-	-	9,088
South Africa	17,044	1	7,304	239	11,856	1,478	21,101	-	26,905	1	23,194	2
South Korea	1,001	6,891	5,374	13,830	2,119	11,064	8,874	9,747	11,408	20,673	10,920	23,942
Taiwan	99	384	5,075	3,851	9,739	9,468	5,947	10,592	11,283	3,324	13,689	4,073
Uruguay	8,835	670	4,480	143	3,228	722	7,425	1,997	9,652	26	6,237	2
Venezuela	-	2,421	1	6,604	-	7,002	147	33,538	28	27,450	6	18,675
Other	29,285	35,209	15,858	42,795	13,993	18,807	12,535	5,918	13,898	11,337	14,648	20,786
Total	94,599	179,228	72,855	173,640	92,844	176,603	95,152	159,993	112,292	184,166	101,361	177,407

<sup>1/</sup> The source of tuna imports may be the flag of the catcher vessel, country of export or country through which the tuna is transshipped.

<sup>2/</sup> Light meat includes bigeye, blackfin, bluefin, skipjack and yellowfin tuna.

Source: Statistics and Market News, Southwest Region, NMFS, NOAA.



Table 5.-U.S. domestic tuna cannery receipts and direct exports (short tons) by ocean of origin, 1982-87.

	Albacore							Skipjack							
	1982	1983	1984	1985	1986	1987	82-86 Avg.	1982	1983	1984	1985	1986	1987	82-86 Avg.	
Ocean															
E. Atlantic	62	-	-	-	-	-	12	27	21	-	-	-	-	10	
W. Atlantic	-	4	-	1	-	-	1	-	3	944	2,079	1,825	884	970	
E. Pacific	5,099	9,434	13,409	6,021	3,158	2,589	7,424	59,264	40,181	22,359	4,992	7,938	14,845	26,947	
W. Pacific	1,866	1,032	587	831	369	1,088	937	42,546	114,913	137,678	96,618	103,049	87,842	98,961	
Indian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	7,027	10,470	13,996	6,853	3,527	3,677	8,374	101,837	155,118	160,981	103,689	112,812	103,571	126,888	
	Yellowfin 1/														Total
	1982	1983	1984	1985	1986	1987	82-86 Avg.	1982	1983	1984	1985	1986	1987	82-86 Avg.	
Ocean															
E. Atlantic	1,087	-	-	-	-	-	217	1,176	21	-	-	-	-	239	
W. Atlantic	115	70	1,550	4,185	839	60	1,352	115	77	2,494	6,265	2,664	944	2,323	
E. Pacific	96,640	65,863	60,753	101,897	103,402	106,300	85,711	161,003	115,478	96,521	112,910	114,498	123,734	120,082	
W. Pacific	24,290	54,701	49,777	31,982	40,359	70,291	40,222	68,702	170,646	188,042	129,431	143,777	159,221	140,120	
Indian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	122,132	120,634	112,080	138,064	144,600	176,651	127,502	230,996	286,222	287,057	248,606	260,939	283,899	262,764	

Note: Cannery receipts include imported and domestically caught tuna delivered to U.S. processors. Excluded are U.S. caught tuna destined for export or for the fresh tuna market and imported tuna destined for the fresh tuna market or designated as "flakes" and "not fit for human consumption." Direct exports include U.S. caught tuna landed directly in, or transshipped to a foreign country; excludes tuna exported from the U.S. east and west coasts.

1/ Includes Bigeye, Blackfin, and Bluefin Tuna

Source: Statistics and Market News, Southwest Region, NMFS, NOAA.



Table 6.-U.S. Imported tuna cannery receipts (short tons) by ocean of origin, 1982-87.

Ocean	Albacore						Skipjack							
	1982	1983	1984	1985	1986	1987	82-86 Avg.	1982	1983	1984	1985	1986	1987	82-86 Avg.
E. Atlantic	19,815	16,935	27,392	30,655	35,475	35,543	26,054	34,358	35,882	10,828	19,713	39,499	17,700	30,040
W. Atlantic	21,129	16,127	17,209	25,486	36,631	21,827	23,316	18,070	9,059	20,650	15,434	14,731	5,000	16,066
E. Pacific	48	243	439	-	-	145	146	4,501	9,245	17,146	15,733	10,443	14,418	11,708
W. Pacific	35,374	23,226	32,340	28,667	28,916	26,948	29,705	72,742	72,699	30,427	24,604	63,001	29,059	48,898
Indian	18,232	16,324	15,464	10,344	11,270	16,898	14,327	5,637	7,988	13,581	29,547	8,094	28,881	12,460
Total	94,598	72,855	92,844	95,152	112,292	101,361	93,548	135,308	134,873	92,632	105,031	135,768	95,058	119,172

Ocean	Yellowfin 1/						Total							
	1982	1983	1984	1985	1986	1987	82-86 Avg.	1982	1983	1984	1985	1986	1987	82-86 Avg.
E. Atlantic	9,320	4,618	3,258	5,075	5,949	5,403	5,644	55,911	66,532	46,558	61,137	70,246	58,646	61,738
W. Atlantic	3,058	6,446	3,259	10,910	5,507	3,201	5,836	40,643	29,527	57,046	57,572	39,875	30,028	45,218
E. Pacific	19,200	7,492	9,222	29,572	46,945	48,180	22,486	12,236	18,906	46,718	62,678	26,898	62,743	34,340
W. Pacific	18,800	18,814	23,799	15,262	14,380	19,291	18,211	114,782	128,838	74,356	67,900	119,253	75,298	96,814
Indian	835	962	2,192	6,542	6,354	6,274	3,377	22,923	25,644	30,467	47,171	24,490	52,053	30,164
Total	51,213	38,332	41,730	67,361	79,135	82,349	55,554	246,495	269,447	255,145	296,458	280,762	278,768	268,274

Note: Cannery receipts include imported and domestically caught tuna delivered to U.S. processors. Excluded are U.S. caught tuna destined for export or for the fresh tuna market and imported tuna destined for the fresh tuna market or designated as "flakes" and "not fit for human consumption." Direct exports include U.S. caught tuna landed directly in, or transshipped to a foreign country; excludes tuna exported from the U.S. east and west coasts.

1/ Includes Bigeye, Blackfin, and Bluefin Tuna

Source: Statistics and Market News, Southwest Region, NMFS, NOAA.

Table 7.-U.S. supply of canned tuna, volume and value, 1975-87.

Year	Case pack supply (1,000 standardized cases) <sup>1/</sup>						Total
	Domestic production				Canned Imports		
	White		Light				
		% <sup>2/</sup>		%		%	
1975	5,296	17.8	21,854	73.3	2,650	8.9	29,800
1976	6,312	18.7	24,416	72.3	3,020	9.0	33,748
1977	6,559	21.9	21,544	72.1	1,776	6.0	29,879
1978	7,528	19.4	28,615	73.8	2,655	6.8	38,798
1979	6,129	17.7	25,678	74.3	2,754	8.0	34,561
1980	5,825	17.1	25,049	73.4	3,259	9.5	34,133
1981	6,204	17.3	25,948	72.5	3,633	10.2	35,785
1982	6,416	20.0	21,199	66.0	4,491	14.0	32,106
1983	5,444	14.9	24,844	68.0	6,273	17.1	36,561
1984	7,012	17.6	24,489	61.5	8,324	20.9	39,825
1985	6,764	17.4	21,185	54.4	10,972	28.2	38,921
1986	8,069	18.0	24,589	54.9	12,134	27.1	44,792
1987	7,174	16.2	26,364	59.4	10,856	24.4	44,394

## Case pack value (1,000 dollars)

1975	136,678	19.6	515,957	73.8	45,951	6.6	698,586
1976	212,869	23.1	640,594	69.6	67,502	7.3	920,965
1977	240,734	25.3	665,880	70.0	44,658	4.7	951,272
1978	296,506	22.2	976,754	73.0	63,822	4.8	1,337,082
1979	243,851	20.9	859,998	73.6	65,071	5.5	1,168,920
1980	252,290	20.3	891,237	71.9	97,254	7.8	1,240,781
1981	294,292	22.8	885,846	68.6	110,359	8.6	1,290,497
1982	275,400	26.7	643,046	62.3	113,346	11.0	1,031,792
1983	197,011	19.8	661,586	66.4	137,324	13.8	995,921
1984	255,997	24.6	616,280	59.3	167,268	16.1	1,039,545
1985	269,887	26.2	550,882	53.5	209,138	20.3	1,029,907
1986	320,795	28.9	560,723	50.5	227,919	20.4	1,109,437
1987	313,611	25.6	704,048	57.5	206,920	16.9	1,224,579

<sup>1/</sup> For ease of comparison a standard case will represent 48 6.5-ounce cans or 19.5 pounds.

<sup>2/</sup> A % symbol denotes the percent of total for each canned category.

## Source:

Domestic: U.S. Department of Commerce. 1976-1987. Fisheries of the United States, 1976-1987. Current Fishery Statistics Nos. 6900, 7200, 7500, 7800, 8000, 8100, 8200, 8300, 8320, 8360, 8380, 8385, 8700, NOAA, National Marine Fisheries Service, Washington, D.C., various pagination.

U.S. Department of Commerce. 1975-1985. Canned Fishery Products, 1975-1984. Current Fisheries Statistics Nos. 6701, 6901, 7201, 7501, 7801, 8001, 8101, 8201, 8301, 8319, 8359, NOAA, National Marine Fisheries Service, Washington, D.C., various pagination.

Imports: U.S. Department of Commerce, Bureau of the Census Computerized data files, 1974-1987.



Table 8 - U.S. imports and value of canned tuna (oil and water) by principal sources

SOURCE	1982	1983	1984	1985	1986	1987
QUANTITY (1,000 POUNDS)						
CANADA	2	2,106	---	88	9	83
ECUADOR	---	---	890	5,175	2,886	5,112
INDONESIA	595	2,634	2,222	1,388	815	1,505
JAPAN	25,481	20,387	26,855	23,703	10,558	4,688
MALAYSIA	755	3,083	1,608	3,878	2,401	1,573
PHILIPPINES	27,631	32,018	22,225	30,797	27,982	20,858
SOUTH KOREA	49	68	82	58	1,443	306
SPAIN 1/	120	133	214	336	237	198
TAIWAN	10,704	18,710	17,935	23,472	28,579	25,924
THAILAND	18,667	39,930	89,685	122,666	152,297	146,928
OTHER	2,575	3,260	597	2,387	9,414	4,510
TOTAL	86,579	122,329	162,313	213,948	236,621	211,685
VALUE (1,000 DOLLARS)						
CANADA	5	2,986	---	75	7	63
ECUADOR	---	---	837	4,676	2,603	4,481
INDONESIA	699	2,679	2,102	1,186	690	1,248
JAPAN	38,561	24,643	29,186	28,142	14,755	7,375
MALAYSIA	1,242	4,068	1,893	4,498	3,160	1,985
PHILIPPINES	31,085	32,291	20,396	25,930	23,124	16,576
SOUTH KOREA	79	69	75	58	1,230	267
SPAIN 1/	300	268	376	560	557	588
TAIWAN	14,366	22,772	22,475	29,801	34,483	34,809
THAILAND	22,711	43,259	89,253	111,852	139,561	135,368
OTHER	4,299	4,289	677	2,360	8,456	4,160
TOTAL	113,347	137,324	167,270	209,138	228,626	206,920
UNIT VALUE (PER POUND)						
CANADA	\$ 2.96	\$ 1.42	\$ ---	\$ 0.86	\$ 0.78	\$ 0.76
ECUADOR	---	---	0.94	0.90	0.90	0.88
INDONESIA	1.18	1.01	0.95	0.85	0.85	0.83
JAPAN	1.46	1.20	1.09	1.19	1.40	1.57
MALAYSIA	1.64	1.32	1.18	1.16	1.32	1.26
PHILIPPINES	1.12	1.00	0.92	0.84	0.83	0.79
SOUTH KOREA	1.63	1.02	0.91	0.99	0.85	0.87
SPAIN 1/	2.50	2.01	1.76	1.66	2.35	2.97
TAIWAN	1.34	1.21	1.26	1.27	1.21	1.34
THAILAND	1.22	1.08	1.00	0.91	0.92	0.92
OTHER	1.66	1.31	1.14	0.99	0.90	0.92
AVERAGE	1.29	1.12	1.03	0.98	1.12	1.19
PERCENTAGE OF TOTAL QUANTITY						
CANADA	***	2	---	***	***	***
ECUADOR	---	---	1	2	1	2
INDONESIA	1	2	1	1	***	1
JAPAN	30	17	17	11	5	2
MALAYSIA	1	2	1	2	1	1
PHILIPPINES	32	26	14	14	12	10
SOUTH KOREA	***	***	***	***	1	***
SPAIN 1/	***	***	***	***	***	***
TAIWAN	12	15	11	11	12	12
THAILAND	21	33	55	57	64	70
OTHER	3	3	***	2	4	2
TOTAL	100	100	100	100	100	100

\*\*\* Less than 1 percent, included in "OTHER" listing.

1/ Mainly oil packed

Source: Department of Commerce, Bureau of the Census