DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

SHRIMP – A New Picture For 1974

Notes and analysis of events associated with the industry's heavy inventory position in early 1974

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ABSTRACT

The shrimp industry in the United States in early 1974 was undergoing a period of adjustment to altered conditions within the industry and the general economy. The machinery of adjustment went into motion after a sharp buildup of cold storage holdings of shrimp during the last 4 months of 1973, when demand for shrimp became sluggish and landings and imports were rising. In the last quarter of 1973, consumption dropped 22 percent below the comparable quarter of 1972. Inventories at the end of the new year reached 84 million pounds and continued to climb into February, contrary to normal seasonal movement.

Buyer resistance to high prices was the most obvious factor that softened demand for shrimp. Shrimp prices increased steadily at all levels throughout 1973, picking up momentum as the year progressed. The increasing prices in the first 8 months of the year were consistent with declining supplies. But the momentum carried over into the last quarter when prices should be at seasonal lows. This situation coincided with a break in the prices of meat and poultry, which weakened the competitiveness of shrimp as a protein food. Cold storage holdings inevitably increased.

Not surprisingly, wholesale and exvessel prices of shrimp began to drop after the beginning of the year. Wholesale prices in February 1974 were about 10 percent less than in December 1973, and cuts in exvessel prices were much sharper particularly of the high-count (smaller sized) shrimp. With the notable exception of the high-count shrimp, dockside prices in February 1974 were still considerably above a year earlier. But prices paid for much of the shrimp in storage reflected price increases beyond February 1973. Also, vessels received nearly 40 percent less for high-count shrimp in February 1974 than a year earlier.

Price adjustments--and probably some promotional efforts--in early 1974 had an apparent salutary effect on shrimp consumption in the United States. Consumption increased from a low of 19.6 million pounds in December 1973 to 33.4 million pounds in January 1974. The outlook, however, is for substantial increases in domestic landings and imports--at least through the first half of 1974. This, plus recessionary tendencies in the U.S. economy, the energy crisis (which affects restaurant sales), and expected gains in beef and poultry production later in the year will continue to depress shrimp prices. Thus, the market will likely adjust at prices well below what they were at the year's start. On the bright side, there is the factor of a long period of strong demand for U.S shrimp, and this rules against the possibility of a prolonged depression in shrimp markets. In summary, prices will likely remain relatively soft through most of 1974 but consumption will pick up and adjust the inventory position to a more normal level.

THE SHRIMP SITUATION

Background Notes and Analysis of Events

Associated With the Industry's Heavy Inventory in Early 1974

Introduction

Seafood markets--particularly for fresh and frozen products--are entering the 1974 Lenten season with considerable uncertainty. On the basis of established trends, prospects for 1974 would be bright with respect to demand and concern would center about the condition of short supplies. However, severe changes in the general economy have helped alter the situation. The new year began with unusually heavy cold storage holdings 459 million pounds on January 1, 1974. Last year's carryover was 415 pounds; in 1971 the figure was 302 million pounds.

Normally, the heavier carryover stocks would be welcome assurance of an undisturbed flow of products through increasingly expanding pipelines. But 1974 is different. Sales of many popular fishery products in the last quarter of 1973--particularly at retail levels--tended to be sluggish. One major reason was the generally favorable supply of meats and poultry. Consumer resistance to high prices also was apparent. And to complicate the picture, the gasoline shortage was threatening restaurant sales, which account for a large proportion of the seafoods consumed in the United States.

Whatever the causes and their order of importance, the effects were clear: The industry was faced with growing inventory costs and an uncertain demand outlook. Shrimp was the most visible case in point. Cold storage holdings of shrimp in February 1974 were at a record level for the month, following a sharp cutback in U.S. shrimp consumption. Industry concern about the immediate future was justifiably widespread. Obviously, the industry was facing adjustment. On the assumption that these adjustments can be made more effective (or less painful) if related decisions have the benefit of perspective and facts, the National Marine Fisheries Service's Market Research and Services Division has prepared the following analysis of the events that led to the shrimp inventory problem, together with comments on the outlook. This report has a relatively brief narrative and is supported by a detailed statistical presentation that the reader may find useful in appraising the situation.

*Prepared by Morton M. Miller, Chief, Market Research and Services Division
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Situation Analysis

Cold storage holdings of shrimp on February 1, 1974 were 68 million pounds. This was the highest figure on record for February and was noteworthy because it represented an increase over January 1974. Normally, shrimp holdings will decline seasonally in February and continue to drop until the heavy landings season begins around June. But the picture in 1974 appears quite different. During January, the quantity of shrimp in storage increased 3 million pounds, whereas a year ago, holdings during the first month of the year were reduced by 10 million pounds. Table 1 shows changes that have occurred in the last 6 years during January.

Table 1.--U.S. frozen shrimp holdings

Year	Jan. 1	Feb. 1	Change
	- - - - Million pounds - - - -		
1974	84.0	86.8	+ 2.8
1973	95.8	85.9	- 9.9
1972	74.2	72.5	- 1.7
1971	78.7	69.8	- 8.9
1970	68.6	65.7	- 3.3
1969	60.6	53.9	- 6.7

Initially, Buildup Was Timely

The buildup of shrimp inventories began during September 1973, but caused little alarm at the time. The upturn was, in fact, timely, because holdings were unusually low. Shrimp landings in the Gulf during the first three quarters of 1973 decreased about 30 percent from a year earlier, and imports also were considerably less.

The drop in new supplies (landings plus imports) during January-September 1973 delayed a seasonal increase in holdings that normally begins in early summer (fig. 1). When holdings started upward, however, the rate of increase was relatively fast (table 2).

Table 2.--Month-to-month increase (decrease) in shrimp holdings

Year	Sep. 1-30	Oct. 1-31	Nov. 1-30	Dec. 1-31	Net change Sep. 1-Dec. 30
	Million pounds				
1973	6.5	10.8	8.8	6.2	32.3
1972	(0.2)	5.4	2.5	(1.8)	5.9
1971	9.5	1.6	1.9	1.7	14.7
1970	6.4	6.6	2.8	2.7	18.5
1969	6.5	5.9	4.7	4.3	21.4
1968	5.2	8.7	8.7	(2.0)	20.6

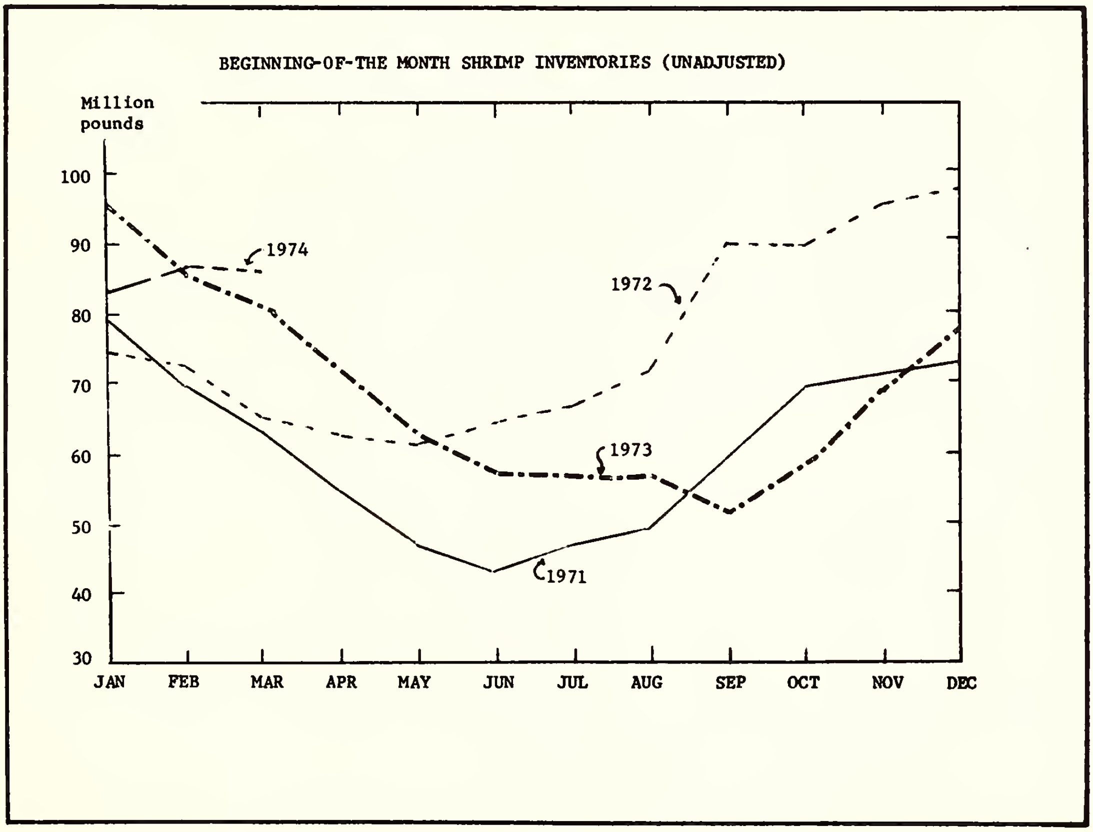

FIGURE 1

Sharp Gains in Breaded and Raw Headless

Heavy inventories in February 1974 have been associated with most of the popular shrimp products, with the exception of peeled shrimp. By far the sharpest gains have been in breaded shrimp holdings, which peaked at about 14.6 million pounds of January 1 and dropped slightly--to 13.7 million pounds--by February 1. At these levels, holding were about 40 percent above comparable months in earlier years. On February 1, 1974, breaded holdings comprised about 16 percent of the total, whereas a year ago the comparable figure was 11 percent.

Since September 1973, raw headless (shell-on) shrimp have been responsible for most of the buildup in inventories. Holdings of this product form, which usually accounts for half or more of shrimp in storage, nearly doubled from September 1, 1973, to February 1, 1974, from about 25 million pounds to 48 million pounds. Holdings of breaded shrimp during the same period increased about 39 percent, from just under 10 million pounds to nearly 14 million pounds. However, holdings of breaded shrimp were relatively high through most of the earlier months of 1973. While holdings of raw headless shrimp were declining from January through August, holdings of breaded shrimp were stable and formed a growing proportion of total holdings. Breaded holdings were 10.7 percent of the total on January 1, 1973, and increased to nearly 20 percent by August 1 and slipped less than a percentage point on September 1.

Supplies Improve, But Consumption Lags

Vastly improved landings in the Gulf and heavier imports contributed to the late 1973 increase in shrimp holdings. But there was a third -- and disturbing--factor that entered the picture. U.S. consumption of shrimp began to slip noticeably, after a sustained period of strong demand (fig. 2). During the final quarter of 1973 apparent U.S. consumption of shrimp totaled only 72 million pounds--well below the preceding

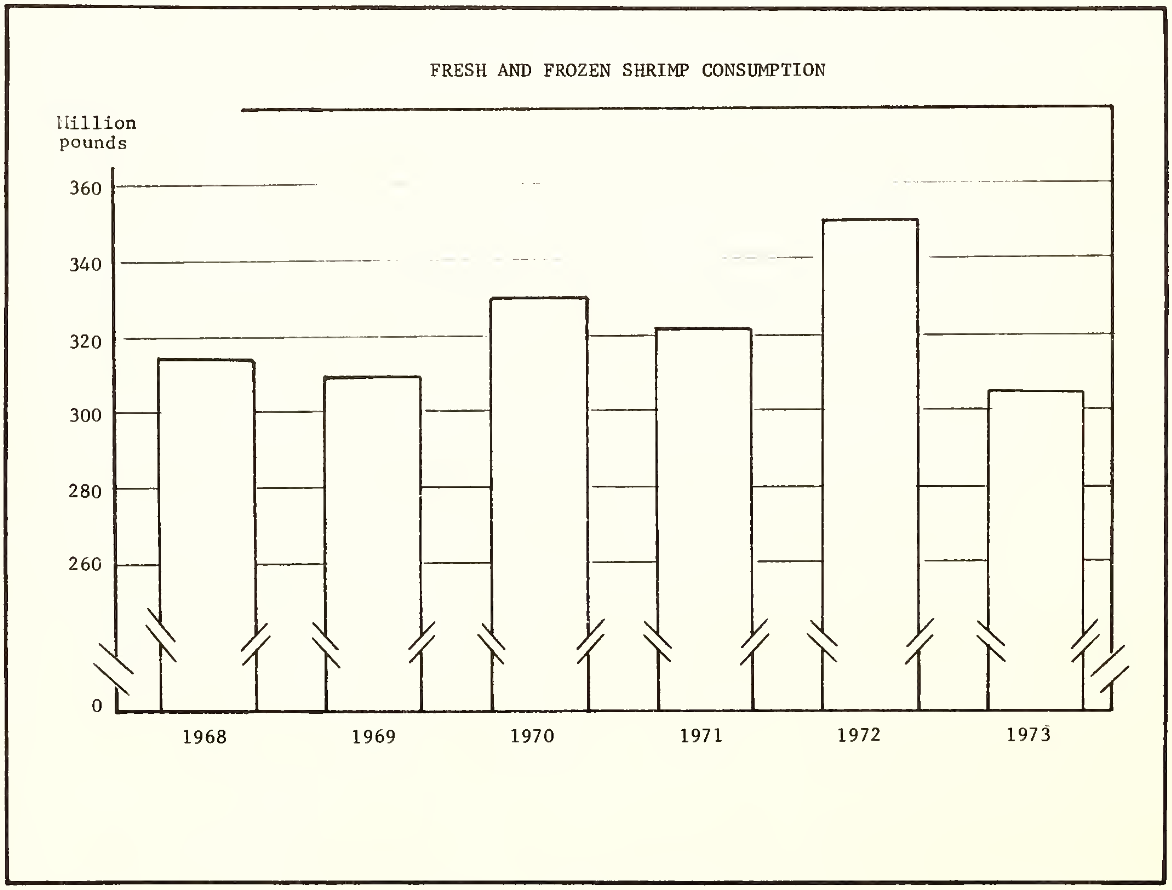

FIGURE 2

quarter and below comparable periods in earlier years. Normally, demand for shrimp increases during the late year holiday season, but, in 1973, fourth quarter consumption was 9 million pounds below third quarter of 1973, and nearly 18 million pounds lower than average fourth quarter consumption for 1968-72 (table 3).

Table 3.--U.S. shrimp consumption

Year	1st qtr.	2d qtr.	3d qtr.	4th qtr.	Total year
	Million pounds				
1973	79.4	75.7	81.2	72.2	308.5
1972	78.2	83.8	95.9	92.7	350.6
1971	80.1	72.1	80.2	89.6	322.0
1970	75.5	81.3	83.2	92.5	332.5
1969	73.6	65.5	84.5	86.6	310.2
1968	73.7	68.8	84.2	88.2	314.9

Price an Important Factor in Shrimp Sales

Buyer resistance to rising prices is the most obvious factor associated with decreased consumption of shrimp. Historically, consumption has waned during rising prices and increased during declining prices (fig. 3). Just how strong consumers react to changes in prices of shrimp depends on many variables such as the price of other foods, personal income, and season of the year. Shrimp prices began inching

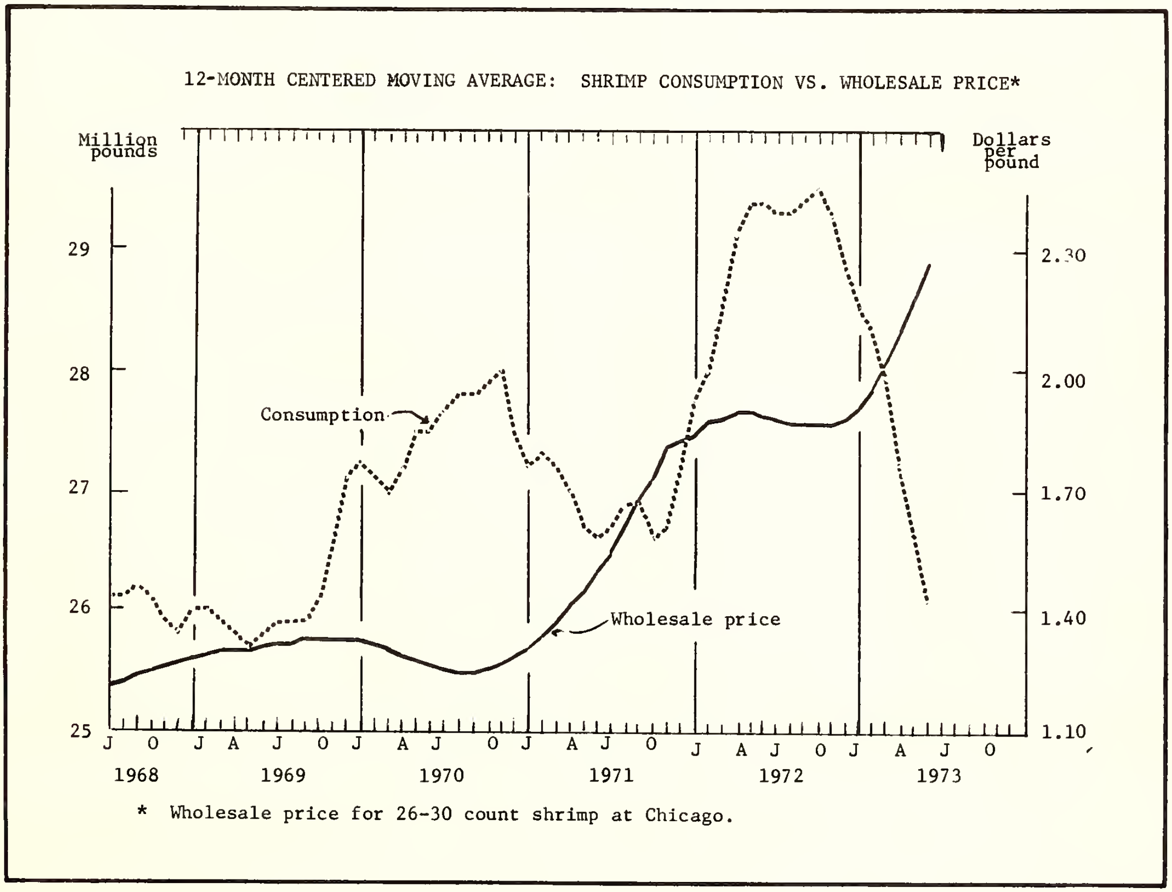

FIGURE 3

up in late 1972 and picked up momentum in the early months of 1973 (fig. 4). The swing upward was particularly sharp during the last half of the year. Wholesale prices for 26-30 count, raw headless at Chicago averaged $2.77 per pound in December 1973 compared with $2.18 during June and $1.82 in January. Thus, in the last half of 1973, these prices rose 27 percent, compared with a gain of 20 percent in the first half. Changes were even more pronounced at retail. For example, the retail price of 21-25 count, raw headless, in Baltimore increased 3-1/2 percent during the first 6 months and 29 percent in the last 6 months.

Early Stage of Increasing Price Trend Associated with Short Supplies

The rise in shrimp prices during the first half of 1973 and beyond was consistent with steadily declining supplies. This decline was, in part, seasonal (fig. 5). As a rule, new inputs to supply--landings plus imports--are at seasonal lows from February through April and inventories are drawn down. Prices move up seasonally. Usually landings begin to pick up during May and the seasonal increase in supplies begins--which leads to seasonally lower prices (table 4). In 1973, landings and imports were down considerably, and inventories were drawn upon throughout most of the first three quarters. During May, total supplies dropped below comparable 1972 totals, and by August, total supplies were running below 1971 on the basis of month-to-month comparisons.

Table 4.--Fresh and frozen shrimp - seasonal indices *

Month	Total supplies	Apparent consumption	Wholesale price	Cold storage holdings
	----Million	pounds----	Cents/pound	Million pounds
January	105.1	103.1	99.8	116.8
February	94.6	86.0	104.6	198.8
March	90.8	96.3	107.2	99.8
April	82.6	88.3	104.6	90.6
May	87.1	94.1	106.4	83.7
June	94.8	98.5	100.7	82.2
July	96.6	109.4	97.5	85.2
August	97.2	107.1	98.4	90.3
September	102.9	99.1	99.9	99.2
October	117.5	122.2	93.0	106.1
November	116.2	101.7	94.0	117.4
December	114.5	94.1	93.9	119.9

* Based on data for 1968-73

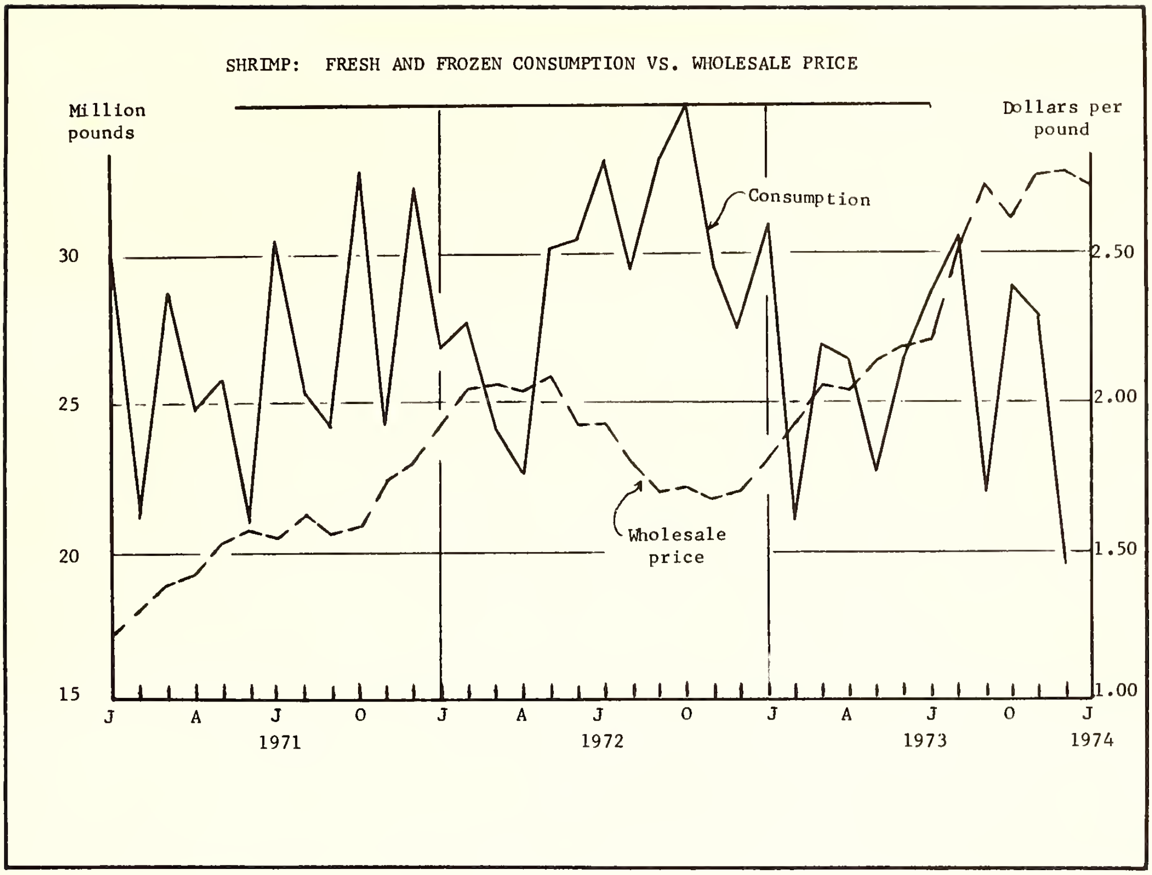

FIGURE 4

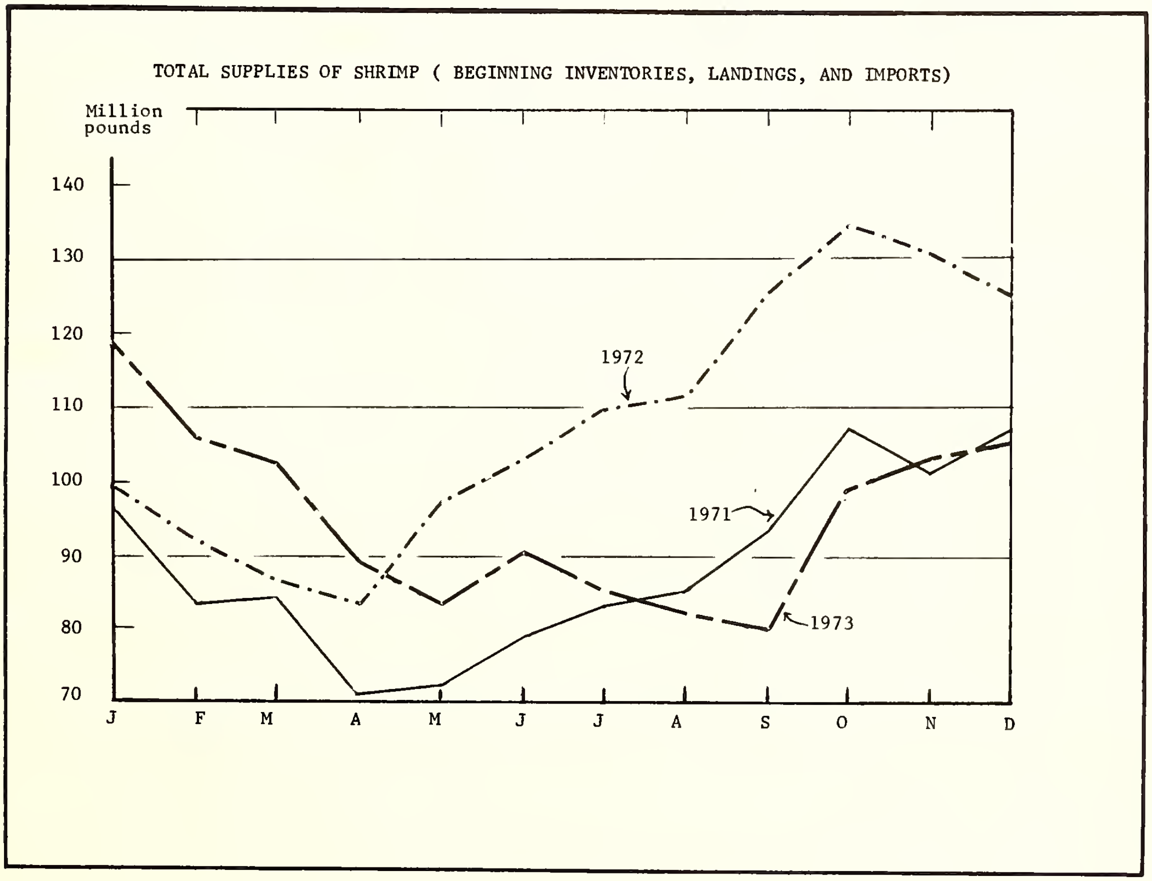

FIGURE 5

Inflated Economy a Factor in "Shrimp Price Gains"

Factors related to the general economy were also apparent in the increases in prices of shrimp in the first three quarters of 1973. Overall, the rate of increase in the price of shrimp during this period was in line with, or below, the rate of change in other food prices (fig. 6). The consumer price index (CPI) for breaded shrimp increased 18.0 points from January through August 1973, compared with 42.4 points for meat and 21.8 points for "all foods".

In September 1973, however, when shortages had pushed meat prices to peak highs, shrimp prices began climbing more sharply than the prices of its protein competitors. Poultry prices, which had peaked in August, were on the way down; the peak September meat price was not much above August; whereas the CPI for breaded shrimp moved up a sharp 2-1/2 points. Retail prices for raw shrimp likewise increased; for example, in Baltimore, the prices rose from $3.13 per pound in August to $3.57 per pound in September. Shrimp prices continued to climb through the end of the year, while prices of poultry and meat continued to drop, and whatever price/value differential consumers had recognized favoring shrimp soon disappeared.

Table 5 summarizes the comparable changes between the CPI for breaded shrimp and competing products during 1973.

Table 5.--Consumer price index shrimp, meat, poultry, fish *

Item	Jan. 1973	Aug. 1973	Change Jan. -Aug.	Dec. 1973	Change Aug.-Dec.
Breaded shrimp	140.3	159.2	+18.9	175.0	+15.8
Meat	137.7	180.1	+42.4	167.5	-12.6
Poultry	116.1	225.3	+109.2	149.0	-76.3
Fish	149.2	165.1	+15.9	178.8	+13.7

* 1967 =100

Holdings Increase Over Long-Term Rate

The level of cold storage inventories of shrimp products reflects long-term trends, as well as seasonal and other short-term phenomena. With the U.S. demand for shrimp on an increasing trend, it has been necessary to increase average sizes of inventories to assure adequate distribution through marketing pipelines. But holdings have increased more than proportionally to the increased quantities demanded. From 1968 through 1973 the exponential trend rate of increase in average shrimp holdings was 0.80 percent per month. The comparable rate of increase in consumption was 0.17 percent per month. A linear trend measurement of the same data shows average inventories increasing by about 490,000 pounds per month, whereas consumption has been increasing at the rate of 46,000 million pounds per month. (See figures 7 and 8.)

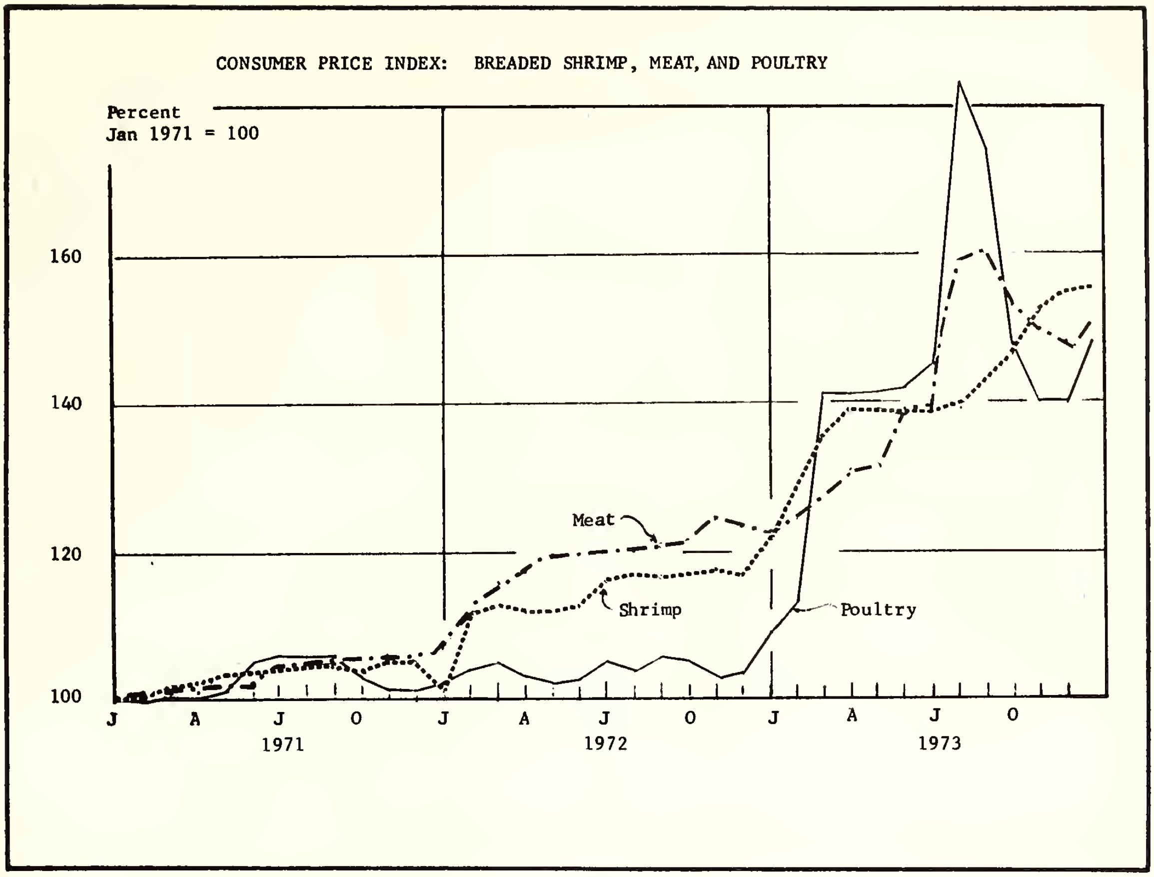

FIGURE 6

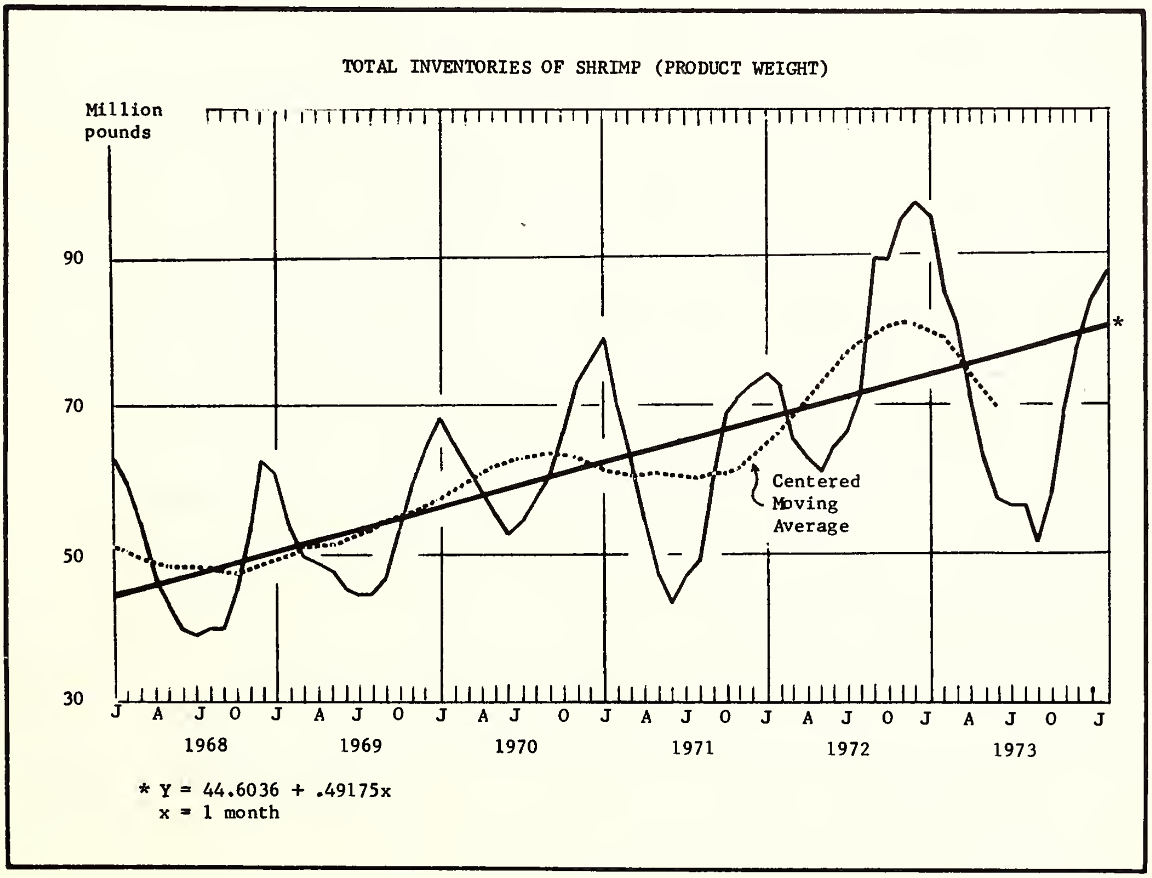

Figure 7

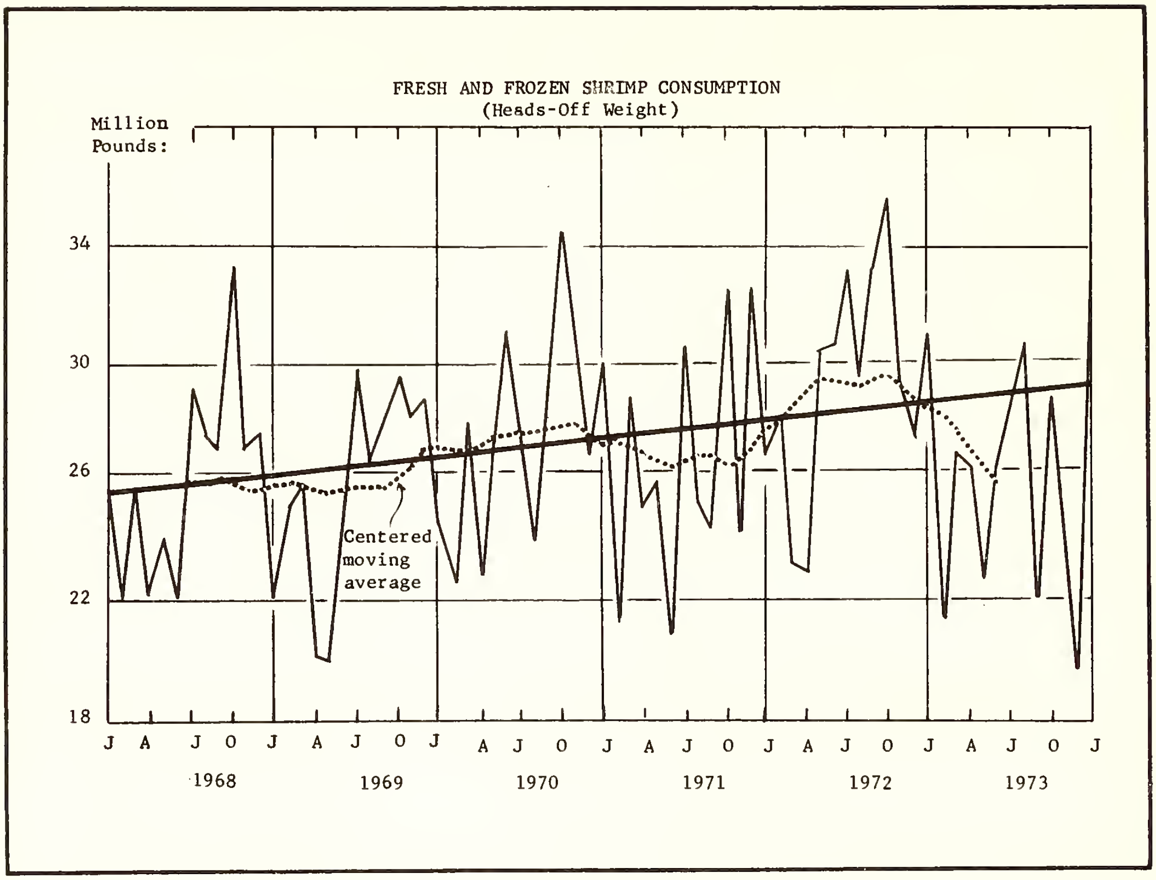

Figure 8

The differential in rates of increase between inventory levels and consumption has increased the ratio of holdings to consumption considerably. In 1968 the quantity in storage at the beginning of a given month was about 1.8 times the month's consumption figure. By 1973, holdings levels had climbed to 5 times the monthly consumption rate but the ratio began to recede slightly to reflect the long period of withdrawal from inventories during January-September 1973 (fig. 9).

Shorter Terms Cycles in Holdings Levels

There are also cycles in the levels of cold storage holdings, as well as cycles in consumption and prices. (The three factors, of course, are closely interrelated.)

The lines representing "centered moving average" in figures 7 and 8 depict the cyclical tendency and also indicate that the duration of the cycles is decreasing. The inventory cycle, for example, moved upward over a 24-month period extending from October 1968 through September 1970. This rise was followed by a 15-month downward swing. The next cyclical peak was reached in 14 months.

The shorter cyclical periods likely reflect a growing complexity in the variables that affect shrimp markets. One example would be the presence of Japanese buyers as a significant factor. Another variable is the uncertainty of supplies associated with resource problems.

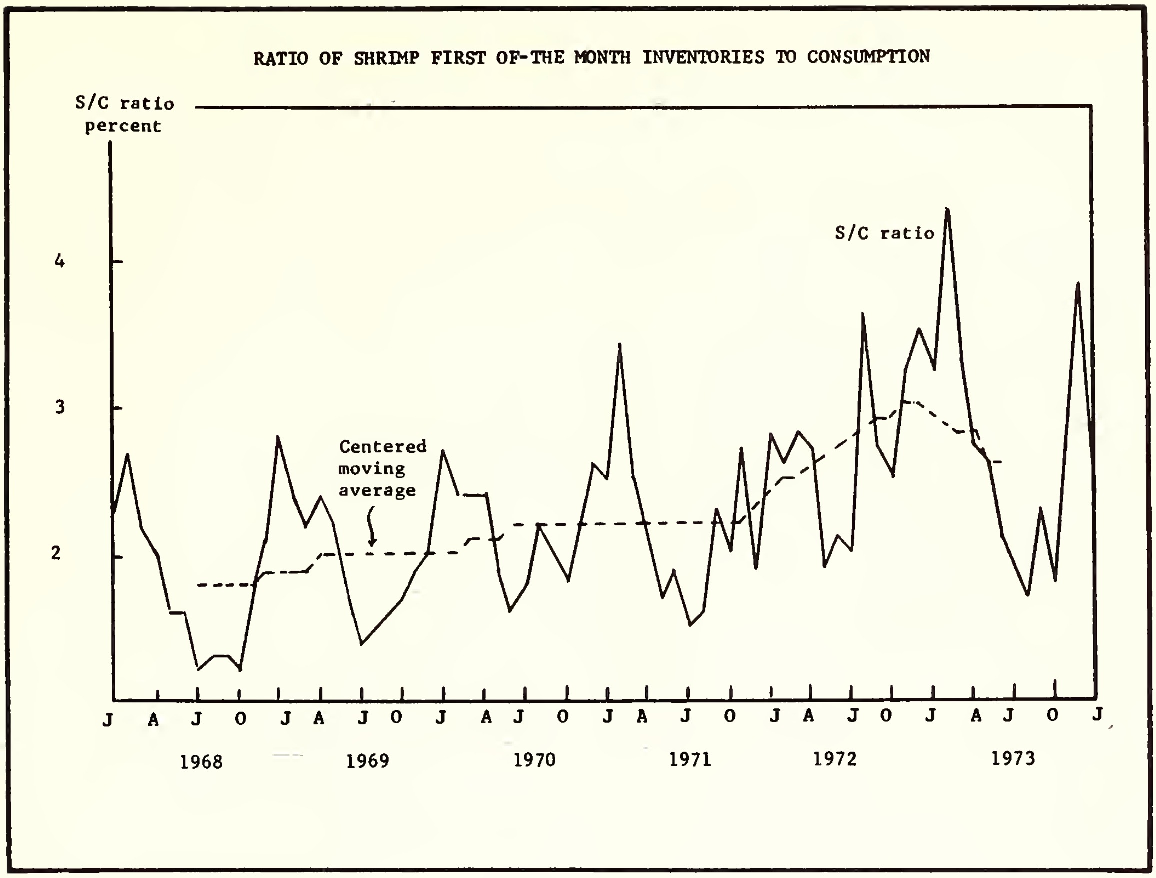

Figure 9

In any event, shorter cycles could mean more frequent--and perhaps more noticeable--adjustments in the markets.

Prices Drop in Early 1974

Predictably, shrimp markets in February-March were reacting to a heavy inventory position with price adjustments, as well as other promotional activity. In the Chicago and New York wholesale markets, prices were cut 7 to 10 percent from December levels and exvessel prices generally were reduced even more--which is not unusual during industry-wide price adjustments (fig. 10). For a frozen commodity such as shrimp, a lag generally can be expected between the time new wholesale prices go into effect and retail prices change. Old stock is likely to be sold at old prices, as retailers act to protect margins in case of falling prices or avoid adverse consumer reaction to sharply rising prices. Thus, February 1974 retail prices slightly increased over the prior month. Table 6 and 7 show comparative price changes.

Table 6.-- Comparative shrimp price changes - wholesale & retail

Month	Raw headless: Wholesale 26-30 ct. Chicago	Raw headless: Wholesale 26-30 ct. New York	Raw headless: Retail 21-25 ct. Baltimore	Breaded: Wholesale Chicago
Dec. - 1972	1.70	1.68	2.84	1.29
Jan. - 1973	1.82	1.73	2.84	1.33
Feb. - 1973	1.93	1.87	2.89	1.39
% change Dec.-Feb.	+13.5	+11.3	+1.8	+7.8
Dec. - 1973	2.77	2.74	3.79	1.80
Jan. - 1974	2.72	2.64	3.88	1.76
Feb. - 1974	2.51	2.47	3.94	1.67
% change Dec.-Feb.	-9.4	-9.9	+4.0	-7.2

Table 7.--Comparative exvessel prices of shrimp

Month	15-20 ct. (brown)	15-20 ct. (pink)	31-35 ct. (brown)	31-35 ct. (pink)	51-60 ct. (brown)	51.60ct. (pink)
	Dollars/pound					
Dec. - 1972	1.50	1.60	1.40	1.32	.92	.90
Jan. - 1973	1.76	1.62	1.60	1.36	1.08	.98
Feb. - 1973	1.89	1.70	1.70	1.47	1.10	1.05
	Precentage change					
Dec.-Feb.	+26.0	+6.3	+21.4	+11.4	+19.6	+16.7
	Dollars/pound					
Dec. - 1973	2.92	2.60	2.06	1.98	1.30	1.22
Jan. - 1974	2.88	2.56	1.84	1.83	1.11	.99
Feb. - 1974	2.62	2.30	1.70	1.59	1.00	.66
	Percentage change					
Dec.-Feb.	-10.3	-11.5	-17.5	-19.7	-23-1	-45.9

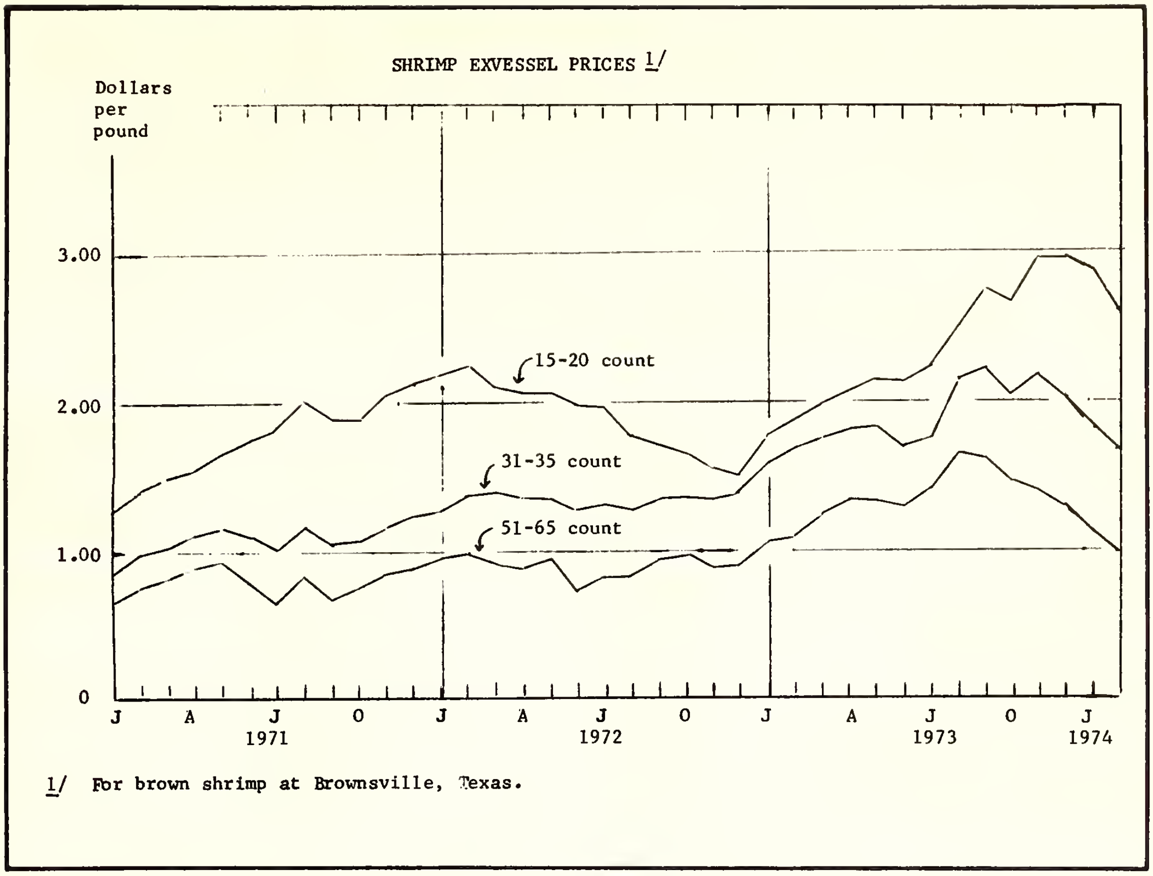

Figure 10

When evaluated in light of normal seasonal movements, the reductions in shrimp prices at the wholesale and exvessel levels were quite severe. For example, between December and the February following, wholesale prices will normally increase about 11 percent (based on changes in the seasonal price index.) Thus, a 10-percent drop amounts roughly to more than a 20-percent cut in seasonally adjusted prices.

In the context of longer term comparisons most shrimp prices in February 1974 were considerably higher than in February 1973, but there are some important exceptions. Exvessel prices for high-count shrimp in February 1974 dipped well below year-earlier prices. For example, the February dockside prices of 51-60 pink shrimp averaged $0.88 per pound this year compared with $1.05 a year earlier. This change is notable because landings of pink shrimp in early 1974 apparently were less than a year earlier. Current data by species by size count were not available, but, overall, pink shrimp landings for January and February 1974 at principal Gulf ports were about 12 percent below a year earlier.

It is probable that exvessel prices of high-count (51 and over per pound) pink shrimp were depressed partially because of heavy landings of similar count sizes in other species. Combined landings of all species of 51-60 count shrimp at principal Gulf ports was up 39 percent for January/February, compared with a year earlier. Also, shrimp landings of all sizes and species at principal ports during January/February were about 11 percent above a year ago (table 8).

Table 8.-- Landings at principal Gulf ports
Dec. 27 to Feb. 21

Shrimp	1973	1974	Change 1973-74
	Thousand pounds		Percent
All shrimp	8,187.4	9,077.4	+ 10.9%
Pink - all sizes	3,612.8	3,181.6	- 11.9
Brown - all sizes	3,204.3	3,106.5	- 3.1
White - all sizes	1,305.2	1,871.2	+ 43.4
Under 30 ct. - all species	4,343.0	4,209.4	- 3.0
31-50 ct. - all species	2,000.2	2,309.5	+ 15.5
51 and over-all species	1,844.3	2,558.5	+ 38.7

Exvessel and other shrimp prices in U.S. markets in early 1974 were also under pressure from relatively heavy imports, particularly in the high-count shrimp. Imports through the third week of February 1974 totaled about 32.4 million pounds compared with 18.0 million pounds during the same period a year earlier. About two-thirds of the 14-million-pound increase was in the 51-count and oversize categories as noted in table 9.

Table 9.-- Shrimp imports, Dec. 27 to Feb. 21

Category	1973	1974	Percent change
30 ct. and under	Thousand pounds		Percent
shell-on	5,586	8,826	+ 58.0
raw peeled	2,643	2,082	- 21.2
Total	8,229	10,908	+ 32.5
31-50 count			
shell-on	2,876	4,429	+ 54.0
raw peeled	1,362	1,320	- 3.1
Total	4,238	5,749	+ 35.7
51 and over			
shell-on	2,337	4,636	+ 98.4
raw peeled	3,244	11,141	+243.4
Total	5,581	15,777	+182.7
Grand Total	18,048	32,434	+79.7

OUTLOOK

The principal question raised from the near-term outlook for shrimp in 1974 concerns the duration of the downswing in prices and the severity of change.

The best indicators as of March 1974 point to continued downward pressure on shrimp prices throughout the rest of the year, with some variation in the amount of pressure tied to the movement of meat prices. Consumption appeared likely to increase moderately, in association with lower prices. The following variables were taken into account in reaching these conclusions:

(1) Substantial increases in domestic landings and imports.
(2) Normal seasonal decline in prices after midyear.
(3) Slowdown in U.S. economy.
(4) Gasoline shortages.
(5) Historic observation of relatively sluggish consumer reaction to price changes.
(6) Expected gains in production of beef and poultry from the second quarter throughout the year.

Landings/Imports

Total landings of shrimp in 1974 will increase significantly from the previous year. Gulf landings were depressed following the spring floods in 1973--but the climate this year is much more favorable. An indication of this was a more than 40-percent rise in January Gulf landings, compared with January a year ago, and continued improvement in February. Indications are that South Atlantic and Gulf landings will top 55 million pounds during the first half of the year. This amount will be about 20 percent above last year, but somewhat under the record 1972 figure.

Imports will also give a large boost to the quantity of new supplies received. Consumers in Japan reportedly have resisted high prices, and stocks are high. Japanese competition with the United States for world supplies thereby will be greatly reduced. There is even the possibility that Japanese trawlers operating off Central and South America may divert their catches to U.S. markets. The Japanese yen was recently devalued, thus making imports more expensive. Japanese traders reportedly were withholding shrimp from the market as a strategy to drive up prices. The reaction of Japanese consumers has led to a decline in shipment to Japan in early 1974.

Imports of shrimp into the United States during January-June this year could easily top last year by 25 to 30 percent, which means a total of about 125 to 130 million pounds. Imports in January 1974 were 30 million pounds--up 62 percent from a year earlier.

Landings and imports added to carryover inventories will mean supplies of about 260 to 265 pounds during the first 6 months of 1974. Assuming 70 million pounds as an acceptable July inventory level (the 1972 figure was 64 million, and 1973's subnormal figure was 52 million pounds) and allowing 30 million pounds for export and canned pack, the required consumption of fresh and frozen shrimp during January-June would be 160 to 165 million pounds. January 1974 consumption was about 33 million pounds, and, if this rate were maintained, the 160-to-165-million-pound total would, of course, be reached. However, considering the factors affecting demand (as discussed below) prices will probably have to remain relatively soft to achieve this level of consumption.

Seasonality Factor

Current supply conditions have contributed to price declines outside the normal seasonal pattern. Assuming even the possibility of the market adjusting to an equilibrium by midyear, the normal expectation should be seasonal declines in shrimp prices throughout the second half of the year.

General Economic Condition

Economic forecasters appear to generally agree that the U.S. economy will undergo what economists at the First National City Bank of New York term "a relatively mild, two-to-three quarter recession in the United States followed by a rather sluggish recovery."*

This plus the effects of continued inflation will erode purchasing power and concentrate consumer spending more heavily on the necessities. The Department of Agriculture predicts that food prices, overall, will increase 12 percent during 1974.** Shrimp, as a relatively high-priced food item, can be adversely affected by this set of conditions. In fact, economic studies have produced evidence that there is a close correlation between rising incomes and increases in the demand for shrimp.

A soft economy also could mean a slowdown in the rate of food purchases away from home. This would affect shrimp particularly, because an estimated 60 to 70 percent of shrimp is consumed in restaurants or other outlets away from home.

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* "The sound of the economy", First National Bank, New York, N.Y.
** U.S. Department of Agriculture, "National Food Situation", March 1974

Gasoline Problems

Continued shortages of gasoline likely will take a toll on sales in restaurants that are located in outlying areas or that cater mainly to the tourist trade. Shrimp, being an important menu item, will be affected accordingly.

Historic Consumer Response to Price Changes

There is evidence that shrimp consumption is inversely related to price and that demand for shrimp is inelastic with respect to price. Thus, a given change in price will induce a less than proportional change in consumption in the opposite direction. It requires a rather sizeable decline in price to stimulate a substantial increase in consumption. A rough idea of how this works can be obtained by observing price/consumption changes over two selected periods in the past. In the period January-September 1970 there was a 2.2-percent increase in consumption associated with a 6-percent decline in prices (both variables seasonally adjusted). In an immediate following period--September 1970 to October 1971--consumption dropped 4.3 percent in association with a 38-percent increase in prices.

Beef and Poultry Situation

Beef and poultry were steadily rising during the first quarter of 1974. Shrimp prices, concurrently, were on the way down--thus improving the relative attractiveness of shrimp. The Department of Agriculture, however, predicts that during the second quarter the output of beef and poultry products will begin to expand relative to year-earlier levels and will post further gains throughout the year. This output will tend to dampen further price increases and, according to USDA, there will be a seasonal decline in beef prices in the final quarter of the year.*

Adjustment Process

A bright feature of the outlook is that market forces are moving shrimp markets toward a satisfactory equilibrium. Adjustments, of course, present problems--more to some than others. Shrimp vessel earnings, particularly, will be vulnerable during the adjustment period. Vessel operation costs have been substantially increased as a result of high fuel prices and other cost factors. Lower prices thereby create a need to increase production and productivity, in order to sustain revenues and profitability. Shrimp processors and distributors who were holding heavy inventories when prices began to slide also will cope with a squeeze on profitability. But given the long-term evidence of a strong demand for shrimp in the United States it is not foreseeable that shrimp markets will plunge into prolonged depression. Rather the adjustments now underway should restore normality in the markets by the end of 1974, probably sooner.

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*USDA, op. cit.

STATISTICAL

APPENDIX

Table A-1.--Shrimp, first-of-the-month holdings, total

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	68,607	78,690	74,233	95,772	83,967
February	65,603	69,805	72,519	85,942	86,814
March	61,982	63,318	65,453	81,239	85,307
April	57,517	55,098	62,893	71,286	
May	55,899	47,293	61,689	62,762	
June	52,414	43,353	64,329	57,774	
July	54,756	47,287	66,579	56,543	
August	57,676	49,427	71,894	56,552	
September	60,223	59,463	89,868	51,721	
October	66,605	68,993	89,732	58,194	
November	73,179	70,608	95,113	68,995	
December	75,977	72,500	97,610	77,790	

Source: NMFS, DMNS

Table A-2.--Shrimp, first-of-the-month holdings, raw headless

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	44,105	52,807	47,444	52,721	47,097
February	42,099	37,325	46,517	45,557	47,863
March	39,429	35,158	40,705	40,358	46,891
April	36,560	29,756	36,710	32,306	
May	35,277	23,869	35,730	29,358	
June	32,628	20,580	35,479	26,210	
July	34,699	22,961	37,054	25,706	
August	36,094	25,473	40,054	26,831	
September	37,513	34,342	49,306	24,579	
October	42,718	41,745	49,326	30,069	
November	47,847	55,148	50,879	35,629	
December	50,290	48,102	52,877	42,085	

Table A-3.--Shrimp, first-of-the-month holdings, breaded

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	*	25,883	10,583	10,246	14,581
February		8,974	9,947	9,655	13,697
March		7,661	9,719	9,785	12,612
April		7,488	9,892	10,966	
May		7,252	9,618	10,043	
June		7,252	9,168	10,891	
July		8,336	9,811	11,064	
August		8,369	9,085	11,256	
September		9,478	9,935	9,902	
October		9,747	9,069	10,597	
November		9,758	8,841	12,937	
December		9,213	10,399	13,972	

*All breaded for 1970 included in unclassified table.

Table A-4.--Shrimp, first-of-the-month holdings, peeled

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	*		11,976	25,651	17,401
February		14,673	12,263	23,738	18,103
March		13,724	11,516	25,048	18,344
April		12,057	11,810	21,684	
May		11,011	11,408	17,080	
June		10,076	13,805	16,112	
July		12,787	15,986	14,325	
August		12,145	17,960	13,991	
September		12,152	25,080	13,034	
October		13,549	25,819	13,791	
November		11,507	27,402	15,994	
December		11,238	27,363	16,044	

*All peeled for 1970 is included in unclassified table.

Table A-5.--Shrimp, first-of-the-month holdings, unclassified

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	*24,502		4,230	7,154	4,888
February	*23,207	8,833	3,792	6,992	7,151
March	*22,553	6,775	3,513	6,048	7,460
April	*20,957	5,797	4,481	6,330	
May	*20,622	5,161	4,942	6,281	
June	*12,786	4,740	5,877	4,561	
July	*20,057	3,203	3,728	5,448	
August	*21,582	3,440	4,795	4,474	
September	*22,710	3,491	5,547	4,206	
October	*23,887	4,042	5,518	3,737	
November	*25,332	4,195	7,991	4,435	
December	*25,687	3,947	6,971	5,689	

*Included breaded and peeled.

Table A-6.--Gulf shrimp landings

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	5,025	5,173	7,517	5,405	7,936
February	5,113	5,048	4,601	4,091	5,625
March	4,818	4,300	5,753	4,190	
April	5,181	3,890	4,490	3,956	
May	12,317	12,173	13,970	7,975	
June	21,992	20,588	17,593	17,510	
July	16,192	18,819	20,165	14,485	
August	16,876	18,639	19,901	9,653	
September	15,779	13,853	15,309	10,310	
October	18,440	18,299	13,892	13,962	
November	13,995	14,027	12,189	11,297	
December	9,617	8,268	8,289	10,425	

Table A-7.--Shrimp landings (heads-off weight)

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	9,738	9,666	13,243	13,471	13,700
February	10,821	11,956	9,403	12,006	
March	13,881	13,726	11,382	7,371	
April	10,861	6,558	7,724	8,031	
May	16,020	17,354	19,453	14,830	
June	29,176	25,293	28,616	27,202	
July	26,459	30,719	34,536	26,747	
August	25,801	30,191	31,109	24,044	
September	23,931	24,007	22,656	24,973	
October	24,776	26,701	25,313	25,059	
November	19,220	21,357	17,360	20,950	
December	13,535	13,917	13,964	17,730	
Total	224,203	234,190	234,759	222,414	

Table A-8.--Shrimp imports, total

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	18,637	15,212	17,818	16,530	25,343
February	14,532	11,356	14,353	14,839	20,906
March	18,535	14,616	14,383	14,397	
April	16,372	13,195	15,942	15,216	
May	15,514	14,207	21,368	14,541	
June	19,748	15,933	20,452	13,623	
July	16,083	14,677	20,327	14,735	
August	13,428	14,781	17,084	16,048	
September	18,182	16,996	16,799	16,169	
October	24,569	18,647	26,379	26,419	
November	22,648	17,180	19,700	21,686	
December	20,464	24,519	18,618	18,401	
Total	218,712	191,319	223,223	202,603	

Table A-9.--Shrimp imports, raw headless

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	11,868	8,684	10,774	10,633	14,297
February	9,064	7,100	8,921	8,773	10,420
March	11,408	8,766	8,768	9,318	
April	10,881	7,768	8,904	10,304	
May	9,622	8,673	9,651	9,432	
June	12,616	10,215	10,624	8,451	
July	9,914	9,858	9,988	8,349	
August	6,816	8,622	8,375	8,463	
September	12,013	11,436	9,859	9,754	
October	17,112	15,036	16,756	16,673	
November	15,257	12,526	12,275	12,338	
December	13,407	15,244	11,875	10,767	
TOTAL	139,978	123,928	126,770	123,255	

Table A-10.--Shrimp imports, peeled raw

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	6,289	5,678	6,493	5,427	9,220
February	4,872	3,685	5,177	5,517	8,855
March	6,344	5,167	5,222	4,402	
April	4,893	5,160	6,581	4,421	
May	5,146	4,909	11,161	4,423	
June	6,439	5,143	9,031	4,656	
July	5,330	4,286	9,656	5,852	
August	5,550	5,608	8,169	7,077	
September	5,151	4,908	6,447	5,997	
October	6,527	3,193	9,249	8,609	
November	6,721	3,842	6,947	8,321	
December	6,239	8,579	6,010	6,717	
TOTAL	69,501	60,158	90,143	71,419	

Table A-11.--Shrimp imports, breaded

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	218	130	183	118	119
February	149	146	74	141	147
March	276	123	90	131	
April	181	19	65	56	
May	41	151	109	121	
June	151	105	271	98	
July	102	45	221	1	
August	50	8	75	51	
September	41	26	81	15	
October	57	107	4	76	
November	64	191	71	87	
December	83	161	78	83	
TOTAL	1,413	1,212	1,322	978	

Table A-12.--Shrimp imports, canned

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	179	425	234	112	835
February	173	201	49	159	1,054
March	256	295	121	228	
April	253	156	77	241	
May	359	281	74	391	
June	272	227	53	267	
July	409	143	90	310	
August	375	138	4	94	
September	287	289	99	172	
October	478	134	105	310	
November	366	175	20	303	
December	468	277	197	440	
TOTAL	3,875	2,742	1,123	3,027	

Table A-13.--Shrimp imports, other (peeled cooked, not breaded and dried)

Month	1970	1971	1972	1973	1974
	------------	------------	Thousand pounds	------------	------------
January	83	295	134	241	873
February	274	224	132	248	430
March	251	265	182	317	
April	164	92	315	194	
May	346	193	373	174	
June	270	242	473	151	
July	329	345	373	223	
August	637	405	461	363	
September	690	337	313	231	
October	395	177	265	751	
November	240	446	387	637	
December	267	258	458	394	
TOTAL	3,948	3,279	3,366	3,924	

Table A-14.--Shrimp imports, total by count size (shell-on)

	1971	1972	1973
	--------Thousand pounds----------		
Under 15	15,439	16,034	14,326
15-20	13,907	12.105	10,986
21-25	12,945	10,272	9,559
26-30	10,470	8,652	8,682
31-40	13,271	12,930	13,759
41-50	9,105	8,371	10,012
51-60	4,942	4,339	5,695
61-70	3,004	2,604	2,852
71 and over	3,433	3,103	3,626
Other	9,984	7,742	12,764
TOTAL	96,500	86,806	92,397

Table A-15.--Shrimp imports, total by count size (raw peeled)

	1971	1972	1973
	Thousand pounds		
Under 15	892	1,914	1,704
15-20	2,470	3,343	3,245
21-25	2,442	3,796	3,166
26-30	3,031	4,832	3,941
31-40	4,080	5,632	4,763
41-50	2,331	2,854	2,937
51-60	1,940	2,605	2,518
61-70	1,324	2,036	1,733
71 and over	13,047	32,558	26,102
Other	5,416	12,584	7,879
TOTAL	36,975	72,206	57,991

Table A-16.--Total supplies of shrimp (heads-off weight)

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	89,734	96,350	99,472	118,727	118,400
February	83,707	83,611	92,219	105,952	113,100
March	87,185	84,293	86,762	102,757	
April	76,745	70,618	83,697	89,473	
May	81,416	71,966	97,461	83,665	
June	92,805	78,631	103,569	90,513	
July	86,918	83,291	109,905	85,282	
August	86,432	84,979	111,554	82,042	
September	94,105	93,079	125,729	80,319	
October	109,287	107,450	134,273	99,279	
November	108,565	101,388	130,465	103,286	
December	103,759	106,923	125,154	105,057	

Table A-17.--Fresh and frozen shrimp consumption

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	24,726	29,979	26,916	31,033	33,400
February	22,572	21,271	28,097	21,402	29,600
March	28,181	28,805	23,189	26,961	
April	22,873	25,197	22,955	26,527	
May	27,261	25,971	30,305	22,726	
June	31,088	20,933	30,548	26,482	
July	27,976	30,468	33,071	28,574	
August	24,127	25,439	29,488	30,592	
September	28,171	24,272	33,342	21,951	
October	34,420	32,614	35,786	28,911	
November	31,038	24,547	29,495	23,722	
December	27,109	32,475	27,409	19,633	
TOTAL	329,542	321,971	320,601	289,254	

Table A-18.--Wholesale price at Chicago, 26-30 count shrimp

Month	1970	1971	1972	1973	1974
	Thousand pounds				
January	1.32	1.20	1.93	1.82	2.72
February	1.33	1.30	2.05	1.93	2.51
March	1.32	1.39	2.06	2.05	2.42
April	1.32	1.43	2.04	2.04	
May	1.34	1.54	2.09	2.14	
June	1.35	1.58	1.92	2.18	
July	1.27	1.55	1.92	2.20	
August	1.23	1.63	1.77	2.51	
September	1.15	1.56	1.78	2.73	
October	1.16	1.59	1.72	2.61	
November	1.18	1.73	1.68	2.76	
December	1.18	1.80	1.70	2.77	

Table A-19.--Wholesale price at New York, 26-30 count shrimp

Month	1970	1971	1972	1973	1974
	Dollars per pound				
January	1.28	1.20	1.88	1.73	2.64
February	1.30	1.24	2.01	1.87	2.47
March	1.29	1.31	2.05	1.99	2.38
April	1.28	1.42	2.06	2.02	
May	1.29	1.52	2.03	2.13	
June	1.27	1.51	1.93	2.16	
July	1.22	1.49	1.94	2.18	
August	1.22	1.62	1.82	2.48	
September	1.19	1.57	1.70	2.69	
October	1.15	1.60	1.75	2.61	
November	1.16	1.74	1.66	2.68	
December	1.16	1.79	1.68	2.74	

Table A-20.--Monthly retail price at Baltimore, 21-25 count shrimp

Month	1970	1971	1972	1973	1974
	Dollars per pound				
January	2.19	2.10	2.75	2.84	3.88
February	2.14	2.12	2.83	2.89	3.94
March	2.14	2.16	2.84	3.06	3.93
April	2.01	2.25	3.02	3.05	
May	1.97	2.32	3.05	3.01	
June	1.97	2.47	2.99	2.94	
July	1.97	2.49	2.92	2.94	
August	1.97	2.52	2.95	3.13	
September	2.02	2.59	2.99	3.57	
October	2.09	2.59	2.99	3.75	
November	2.12	2.59	2.89	3.79	
December	2.14	2.52	2.84	3.79	

Table A-21.--Shrimp exvessel price index (1967 = 100)

Month	1970	1971	1972	1973	1974
	Percent				
January	117.0	104.9	158.1	146.7	221.8
February	132.7	112.5	163.8	159.8	
March	126.2	124.6	159.4	168.6	
April	127.9	143.3	172.4	179.2	
May	118.4	148.0	161.6	181.9	
June	123.8	132.8	150.6	182.3	
July	115.4	147.3	154.7	193.1	
August	118.9	146.6	141.1	219.0	
September	103.1	153.2	140.3	229.4	
October	104.4	141.9	147.1	220.4	
November	104.6	150.8	142.3	230.6	
December	104.9	159.5	142.9	229.4	

Table A-22—Exvessel prices for brown, white, and pink shrimp for selected ports and count sizes, monthly 1971-73

(Number of raw headless shrimp per pound)

Month	15 - 20				31 - 35				51 - 60			
	1971	1972	1973	1974	1971	1972	1973	1974	1971	1972	1973	1974
					Dollars per pound							
					Brown shrimp at Brownsville-Port Isabel, Texas							
January	1.28	2.18	1.76	2.81	.89	1.28	1.60	1.84	.66	.97	1.08	1.11
February	1.42	2.24	1.89	2.68	.98	1.39	1.70	1.65	.77	1.00	1.10	.95
March	1.50	2.10	1.98	2.54	1.03	1.41	1.76	1.60	.83	.93	1.26	.90
April	1.56	2.07	2.07		1.12	1.38	1.81		.91	.90	1.35	
May	1.68	2.07	2.14		1.18	1.37	1.84		.96	.97	1.35	
June	1.77	1.98	2.12		1.11	1.29	1.70		.80	.74	1.30	
July	1.83	1.97	2.24		1.01	1.32	1.77		.66	.85	1.42	
August	2.01	1.77	2.51		1.18	1.28	2.14		.86	.86	1.66	
September	1.92	1.71	2.75		1.04	1.38	2.22		.69	.96	1.04	
October	1.90	1.00	2.09		1.09	1.38	2.06		.78	.99	1.48	
November	2.06	1.55	2.91		1.17	1.35	2.19		.88	.90	1.44	
December	2.14	1.50	2.92		1.24	1.40	2.06		.91	.92	1.30	
					White shrimp at Morgan City, Louisiana							
January	1.30	2.18	1.81	2.92	.82	1.44	1.56	2.00	.56	.90	1.00	1.25
February	1.48	2.20	1.91	2.82	.90	1.51	1.68	1.78	.66	.92	1.11	1.05
March	1.46	2.20	1.90	2.70	..96	1.56	1.75	1.58	.72	.92	1.17	.88
April	1.56	2.17	2.03		1.09	1.56	1.72		.80	.92	1.25	
May	1.64	2.16	2.09		1.16	1.52	1.77		.77	.88	1.39	
June	1.71	2.10	2.13		1.12	1.43	1.78		.66	.80	1.22	
July	1.84	2.04	2.15		1.08	1.42	1.77		.67	.75	1.22	
August	1.96	1.75	2.42		1.12	1.25	1.99		.77	.75	1.54	
September	1.95	1.68	2.74		1.06	1.38	2.18		.70	.85	1.61	
October	1.91	1.77	2.72		1.10	1.48	2.12		.76	.94	1.52	
November	2.04	1.74	2.81		1.18	1.47	2.16		.79	.94	1.38	
December	2.11	1.70	2.95		1.28	1.46	2.15		.84	.95	1.35	
					Pink shrimp at Tampa, Florida							
January	1.20	2.02	1.62	2.56	.90	1.36	1.36	1.80	-	.96	.98	.99
February	1.25	2.07	1.70	2.28	.90	1.42	1.47	1.55	.62	.98	1.05	.88
March	1.37	2.08	1.82	2.25	1.03	1.40	1.59	1.52	.69	.96	1.17	.92
April	1.47	2.08	1.89		1.10	1.40	1.65		.74	.96	1.24	
May	1.56	2.00	1.99		1.19	1.40	1.75		.78	.95	1.34	
June	1.56	1.93	2.01		1.18	1.37	1.27		.79	.80	1.36	
July	1.50	1.90	2.01		1.07	1.36	1.78		.57	.78	-	
August	1.75	1.73	2.40		1.20	1.30	2.06		.62	.82	1.55	
September	1.75	1.68	2.57		1.08	1.33	2.19		.72	-	1.57	
October	1.76	1.66	2.55		1.05	1.33	2.04		.77	-	1.32	
November	1.79	1.64	2.56		1.15	1.33	2.05		.81	.92	1.29	
December	1.88	1.60	2.60		1.24	1.32	1.98		.89	.90	1.22	

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U.S. GOVERNMENT PRINTING OFFICE: 1974— 543-047:28

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