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Cod prices have been rising and will probably continue to rise. The following article tells why.

Why the Cod Shortage? What are the Alternatives?

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INTRODUCTION

In recent years it has become increasingly evident that there is a growing shortage of the traditional species of North Atlantic groundfish and more particularly of cod and haddock. For example, in 1971 the U.S. market experienced a continuing shortage of cod blocks and fillets. Biologists are of the view that it is not possible to increase the landings of cod and other groundfish in the North Atlantic to any significant degree. Therefore, the prospects for supply, both in the short run and in the long run, do not appear to be very encouraging. Demand for cod, however, continues to be strong in all cod markets. During 1970, 1971, and 1972, prices of most groundfish products in the U.S. market underwent a sharp increase. In particular, the price of cod blocks has been on a steady upswing, having nearly tripled since the summer of 1969.

The major questions which emerge are: how can the growing demand of cod blocks and fillets be met and what are the alternative sources of supply for cod?

WORLD LANDINGS OF COD

The overall trend in world cod landings shows an increase of only 1.3 percent per year since 1960 (Figure 1). However, the long-run trend hides two divergent trends. First, the catch from 1960 to its peak in 1968 increased at a rate of 4.1 percent per year.

Since 1968 it has been declining at a rate of 8.3 percent per year (Table 1). Although 1972 data are not available for all countries, the catch was probably a little less than in 1971.

Much of the catch of cod is not available for export to the United States market. Some countries utilize all their landings for their domestic markets. For these countries, rising prices have not caused them to divert cod from their domestic markets to the United States. Several countries, notably Russia, Spain, Portugal, France, and Sweden, take a substantial part of the Atlantic cod, but ship little, if any, to the United States. Their share of the cod catch has been running 30 to 40 percent of the world total. The bottom part of Figure 1 shows the catch from 11 countries which normally ship some cod to the United States plus the U.S. catch. Of the 11, six countries regularly supply over three-fourths of our block imports. Of the total world catch, we have import possibilities for only a little over half of the catch. Note also that the catch in these 11 countries has not risen as fast as the world catch, nor has it dropped as much in recent years. One conclusion that we can draw here is that we have little chance of buying a good part of the world cod catch, even though prices have risen sharply.

Of those 11 countries which normally ship some cod to the United States, let us see how United States consumption has compared with their catches (Figure 2). The cod catch in those

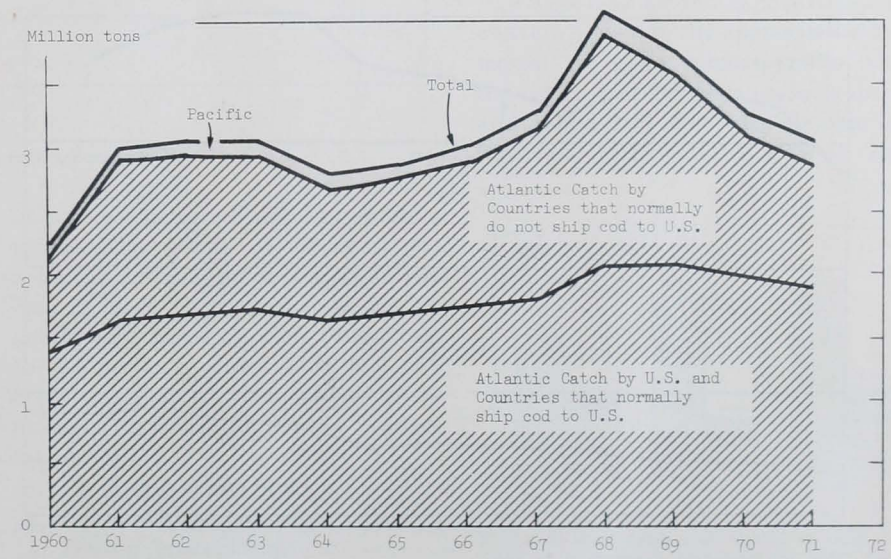

Figure 1. — World cod landings, 1960-71.

Table 1.—World cod landings (1,000 metric tons live weight) for selected years.

Country	1960	1962	1964	1966	1968	1970	1971
				Atlantic Cod			
Canada	274.7	320.6	315.5	306.4	323.1	262.8	244.5
Denmark	58.4	62.9	68.3	89.7	107.4	96.8	133.4
Faroe Is.	84.1	116.3	103.2	90.8	80.9	71.2	61.4
Greenland	28.6	36.3	23.1	30.0	21.3	20.5	19.9
Iceland	243.4	223.4	280.7	231.5	234.6	308.3	255.0
Norway	213.5	296.5	224.6	291.1	388.4	456.6	489.5
Poland	51.1	47.2	53.5	105.8	155.2	126.2	88.1
St. Pierre-Miquelon	4.4	2.9	3.8	4.9	2.2	2.2	1.8
Scotland	41.0	47.6	55.6	55.7	69.1	54.6	57.4
U.K. (Eng & Wales)	273.6	337.9	305.8	331.3	378.4	359.9	309.8
W. Germany	92.2	200.1	176.3	207.9	274.2	190.8	197.6
U.S.A.	18.3	21.3	17.6	17.0	22.3	24.1	24.0
Subtotal	1,383.3	1,713.0	1,628.0	1,762.1	2,057.1	1,974.0	1,882.4
Belgium	9.8	14.8	10.4	20.9	28.1	12.2	23.8
Cuba	—	—	—	1.2	.9	—	—
France	66.2	172.6	164.7	176.4	209.2	140.9	124.3
E. Germany	—	—	45.1	68.9	—	—	34.7
Ireland	1.3	1.0	1.6	2.3	3.5	3.2	4.0
Netherlands	7.2	8.2	11.2	23.7	31.4	25.3	46.9
Portugal	61.7	217.6	227.8	202.3	219.4	198.7	152.7
Romania	—	—	—	—	—	5.0	2.8
Spain	59.8	199.4	221.2	232.7	329.7	268.1	254.9
Sweden	29.4	36.8	25.4	29.3	30.9	22.8	22.0
USSR	531.2	608.5	340.4	357.2	986.3	448.4	283.0
Subtotal	766.6	1,258.9	1,047.8	1,114.9	1,839.4	1,505.4	949.1
TOTAL ATLANTIC	2,149.9	2,971.9	2,675.8	2,877.0	3,896.5	3,098.6	2,831.5
				Pacific Cod			
Canada	2.4	2.0	5.4	10.5	6.2	2.8	4.8
Japan	67.7	76.1	85.3	85.8	109.5	117.1	94.8
Korea	1.8	1.4	1.5	2.2	2.2	2.8	3.1
U.S.A.	2.4	1.4	2.9	4.5	2.7	1.3	2.9
USSR	12.0	9.3	4.9	6.4	22.2	61.6	101.2
TOTAL PACIFIC	86.3	90.2	110.0	110.2	142.8	185.6	206.8
GRAND TOTAL	2,236.2	3,062.1	2,785.8	2,987.2	4,039.3	3,284.2	3,038.3

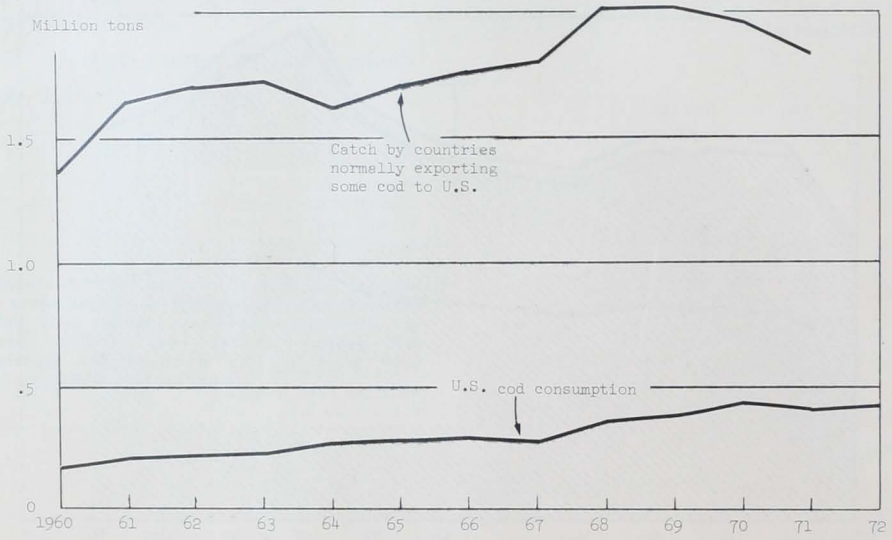

Figure 2. — U.S. share of available cod, 1960-71.

countries shipping to the United States has been increasing by 2.8 percent per year (1960-71).

However, United States cod consumption (fillets and blocks) has been increasing by 8.3 percent per year (1960-72). In 1960, we took 11.9 percent of their catch. By 1971 we took 20.8 percent.

PRICE

What has been the effect on cod prices, given the rise and fall in cod landings? One comparison we can make is between the world catch and the Boston Market News price for cod blocks. As the catch turned up in the mid-1960's, cod block prices dipped in 1966 and 1967 (Figure 3). Prices in 1968 and 1969 held about steady. Since 1969, prices have moved inversely with cod supplies, which is what you would expect. Although the direction in prices was probably no surprise, the magnitude of price increases was fantastic. Since 1968, the world cod supply has dropped 24.8 percent, but the price of cod blocks has nearly tripled. In early June 1973, cod blocks were selling for 65 cents per pound compared with 21 to 22 cents at the same time in 1969.

SUPPLY-DEMAND RELATION

In 1960, the world supply of cod was 13.6 times greater than U.S. consumption. This ratio dropped steadily and by 1966 the world supply was only 8 times greater than our consumption. The figures went up in 1967 and 1968 because of the big jumps in world catches. They have now fallen to the point where in 1971 the world supply was only 7.1 times greater than U.S. consumption.

Now let us look at the same ratios for the top 6 suppliers of cod to the United States. They are Norway, Iceland, Canada, Denmark-Greenland, Poland, and West Germany. In 1960, their catches were nearly 6 times our consumption. The ratio has dropped steadily to the point where, in 1971,

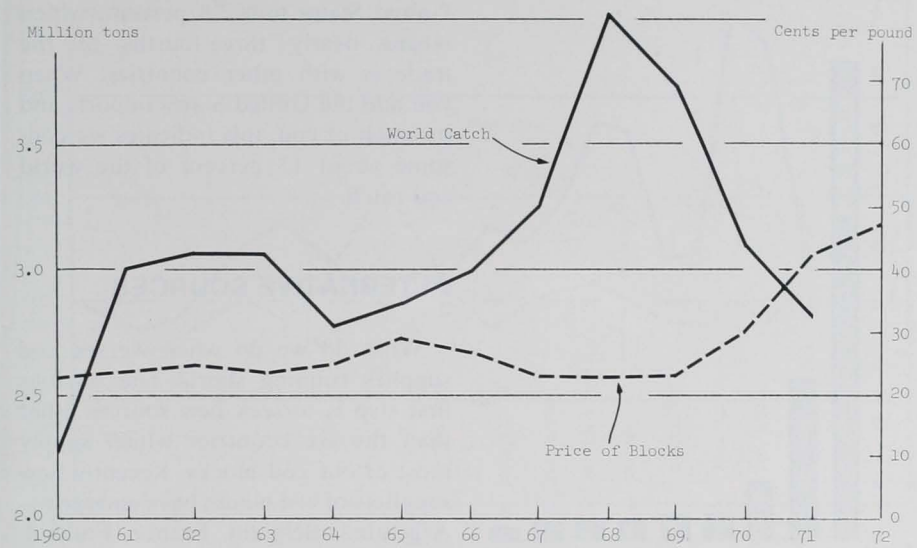

Figure 3.—World catch (1960-71) and price (1960-72) of cod.

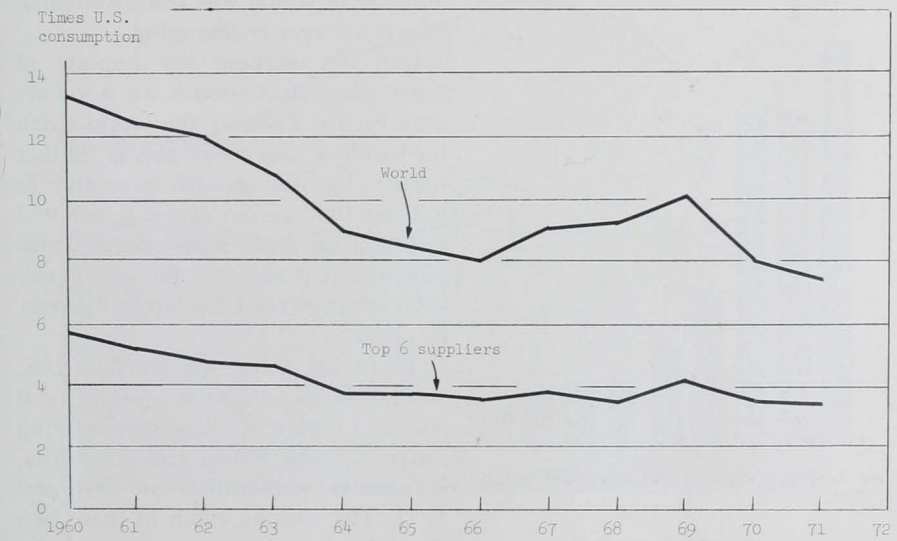

Figure 4.—Ratio of cod supply to U.S. consumption, 1960-71.

catches by our top suppliers were only 3.5 times our consumption. Our cod consumption is increasing faster than the world catch and much faster than the catch of countries which normally supply us (Figure 4).

Such a supply-demand situation can only lead to one thing—and that is higher prices. Although it appears that the cod catch has leveled off near its maximum sustainable yield, the major producing countries still have great flexibility as to the utilization of cod production. Even if production is relatively stable in the years to come, the major producing countries can increase their cod revenues by continually adjusting their production to the products which they feel will bring the highest prices on the world market. They have four major product categories:

1. Fresh-drawn and fillets.
2. Frozen-fillets and blocks.
3. Drying for stockfish.
4. Salting.

If their goal is to produce the right mix of products to maximize returns, this requires the major producers to plan in advance. No later than in December, the major U.S. suppliers should have analyzed the demand for the various cod products in the major consuming nations for the following year. The world cod season is fairly short. By the end of July in Canada, the world cod season is just about over, and cod supplies are relatively fixed for the last half of the year.

WORLD TRADE

Not only is the United States buying more cod, but also the whole world is buying more. Since 1960, the catch of cod has increased 12 percent. But, the world trade in cod, as reported by the Food and Agriculture Organization of the United Nations (FAO), has increased by 53 percent. This would indicate that demand is increasing faster than supply. In economic terms, we would say that demand and supply are in balance. But, they have been coming into balance at higher prices, especially in the last four or five years.

World trade in cod has risen from a third of the catch in 1960 to nearly half in 1970. These statistics come from FAO data.

If you take all the export data and convert it back to the approximate live weight to make it comparable with the catch, you find that trade in dried and salted cod still exceeds that in fresh and frozen cod (Figure 5). The

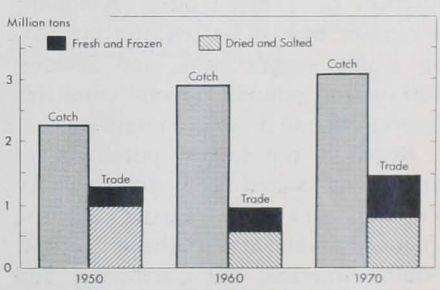

Figure 5.—Cod catch and volume of trade (by types of processing) compared for 1950, 1960, and 1970.

trends appear that this will not be so for very much longer. In 1950, fresh and frozen was about a fourth of the trade. This rose to a third in 1960 and nearly half in 1970. Just in the past decade the trade in cod has gone from 2 to 1 in favor of dried and salted to nearly 50-50. Another point that is interesting to note is the world trade in dried and salted cod. After declining for many years, it has been on the rebound in recent years. In 1950, nearly half of the world catch ended up as exports of dried and salted cod. The trade of dried and salted cod declined during the 1950's, but in the 1960's it started to rise slowly. Trade in dried and salted cod has not been growing as fast as frozen cod in recent years, but the fact that it is higher now than 10 years ago is important. With the relatively fixed supply of cod, every pound that goes for drying or salting is taking away from the frozen trade.

In Norway, 49 percent of the cod catch was frozen in 1970; in 1971 this dropped to 38 percent. Norway salted 23 percent of its cod catch in 1969; 27 percent in 1970; and 40 percent in 1971. The same pattern is evident in Iceland. In 1969, Iceland salted 26 percent of its cod catch; this rose to 28 percent in 1970; and 36 percent in 1971.

Although the United States buys more cod than any other country, it is interesting to see which countries are the principal purchasers of cod—in other words, who are our competitors.

In fresh and frozen cod, we are by far the largest purchasers; however, we take only a little over half of this trade (Figure 6). The United Kingdom purchases nearly 300 million pounds, on a live weight basis, and Sweden 100 million pounds. Several countries import close to 50 million pounds.

Brazil is the largest purchaser of dried and salted cod, followed by Portugal and Italy (Figure 7). The major markets are southern Europe, South America, the Caribbean, and Africa. The surprising thing is that quantities and prices of salted cod to these areas has been increasing in

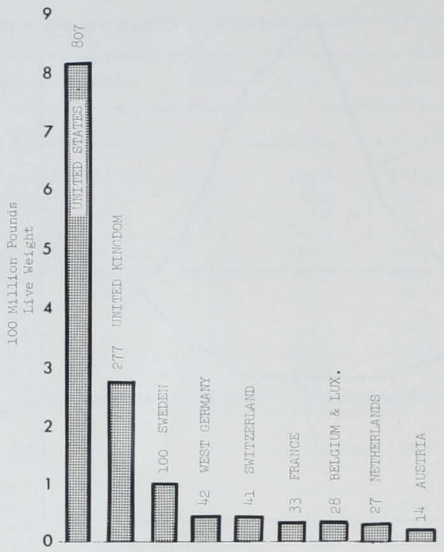

Figure 6.—Major importers of fresh and frozen cod, 1970.

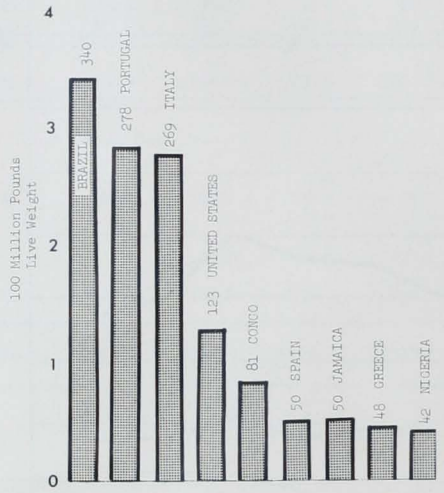

Figure 7.—Major importers of dried and salted cod, 1970.

recent years. These are not the most affluent areas of the world, yet they are paying substantial prices for salt cod. The facts are that we are competing with Jamaica, Portugal, Italy, Nigeria, Brazil, and many other countries for the world supply of cod. And our competitors are getting their share.

To summarize this area of catch, trade, and consumption, let us look at the latest available data for 1970. Out of a catch of 3.3 million tons, 44 percent went into foreign trade and 56 percent of the cod was consumed in the country which caught it. Out of the total foreign trade in cod, the United States took 28 percent, which means nearly three-fourths of the trade is with other countries. When you add the United States imports and its catch of cod, this indicates we consume about 13 percent of the world cod catch.

ALTERNATIVE SOURCES

What do we do when we see cod supplies running short? The obvious first step is to seek new sources other than the six countries which supply most of our cod blocks. Recently new suppliers of cod blocks have emerged—Argentina, Belgium, France, Finland, Netherlands, Panama, Romania, and Sweden. Combined, the countries provided only a million pounds—400,000 of which was from Romania. This is not very encouraging.

Can we increase our imports of other groundfish species we normally use? Figure 8 shows the world catch for haddock and ocean perch. Neither species has the growth potential to indicate that we can expect substantial increases in these supplies. It is also doubtful that we will be seeing any substantial increases in world flounder landings.

There are some species that U.S. processors are turning to—whiting and pollock. Figure 9 shows the whiting catch in South Africa and Argentina. It increased substantially in 1970 and 1971. The whiting catch in these two countries is only 6.7 percent of the current world catch of cod.

The species which seems most likely to take up the future slack between the growing demand and stable supply of cod is Alaska pollock caught by Japan. The growth in Japanese Alaska pollock catches has been phenomenal. It is now equivalent to about 80 to 85 percent of the world cod catch. The Japanese Alaska pollock catch, in 1972 was about 2.6 million tons. To put this in perspective, the Japanese catch of this one species—Alaska pollock—was 22 percent greater than the entire United States catch of edible

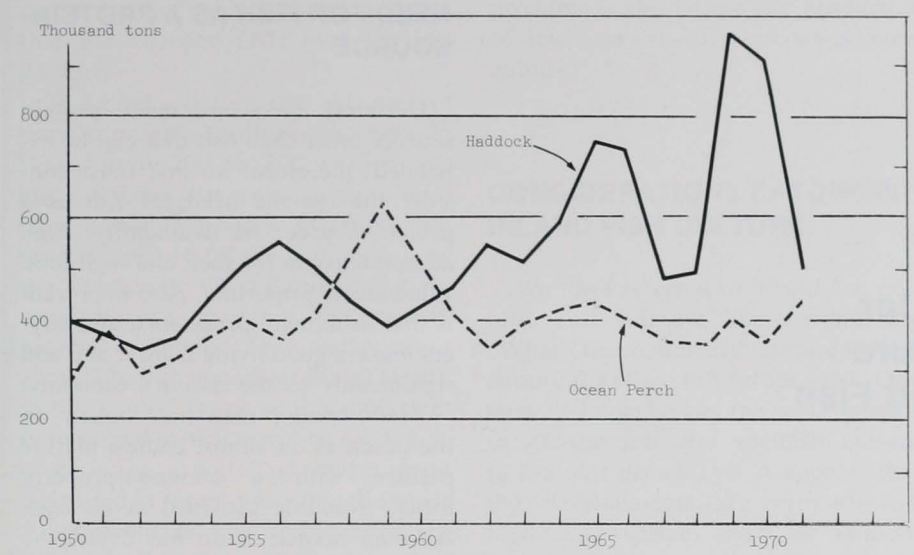

Figure 8. — World catch of haddock and ocean perch, 1950-70.

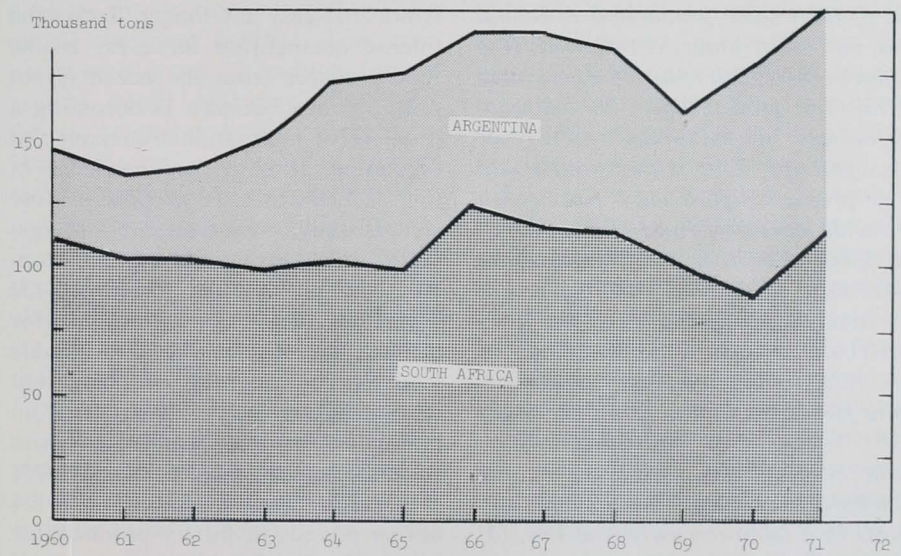

Figure 9. — Whiting catch from Argentina and South Africa, 1960-71.

and industrial fish. The Japanese catch more than half their pollock off Alaska. Their pollock catch in the Bering Sea in 1972 was 1.6 million tons. The entire U.S. catch of edible fish in 1972 was 1.0 million tons. The Japanese normally put about half their Alaska pollock into fish meal and the other half into surimi. In 1971 the Japanese started putting small quantities of Alaska pollock into fish blocks. We received 1.9 million pounds of Alaska pollock blocks from Japan in 1971. Last year pollock blocks from Japan jumped to 32.0 million pounds.

Another alternative is minced blocks which have been available for about 15 years, and most were made into fish cakes or second grade fish sticks. A few years ago better deboning equipment became available and quality has improved somewhat. In the past couple of years, their use has increased substantially. In addition to taking up some of the slack in fillet block supplies, they can also be used when the price of blocks is rising faster than the price of finished products.

CONCLUSION

It is possible to conclude with a relatively optimistic outlook. The transition from cod to pollock is definitely underway as is the growing variety of products coming from minced blocks. This should ease the supply pressure on cod blocks. If the Japanese pollock quality improves, if skinning machines are developed for whiting, and if the quality of minced blocks improves, it is possible that supplies of blocks will be ample for U.S. trade needs for the remainder of the 70's.

The U.S. block market has been expanding by 20 million pounds per year. Pollock, whiting, and minced blocks should be able to meet this rate and even expand it.

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