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MARKET PERSPECTIVES: CANADIAN SEAFOOD PRODUCTS

Alastair O'Rielly

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Task Force on Incomes and Adjustment in the Atlantic Fishery

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**Market Perspectives:
Canadian Seafood Products**

by

**Alastair O’Rielly
O’Rielly Fisheries Consultants**

March, 1993

The views expressed in this paper are the responsibility of the author and do not necessarily reflect the views of the Task Force or the Government of Canada.

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Résumé

Ce document d'information traite des facteurs externes qui jouent un rôle crucial dans les perspectives commerciales des produits de la mer de l'Atlantique. Pour en arriver à un pronostic général des marchés, l'auteur a consulté des directeurs de l'industrie et autres représentants au Canada et aux États-Unis. En outre, il a examiné des documents qui ont servi à d'autres consultations sur les perceptions initiales. De plus, ce rapport a bénéficié de l'examen critique de certains experts en commercialisation des produits de la mer.

Les résumés des secteurs (mollusques et crustacés, espèces pélagiques et poissons de fond) donnent en aperçu des développements importants en ce qui concerne l'offre et la demande, ainsi que les répercussions pour les produits de la mer canadiens. Des observations particulières sont faites pour la plupart des grandes espèces commerciales. Pour le poisson de fond, par exemple, l'auteur signale que le Canada doit réorienter et restructurer son industrie et se repositionner dans le marché haut de gamme des produits à valeur ajoutée.

L'industrie est d'avis que le marché américain du poisson de fond a adopté des substituts bon marché de la morue canadienne. Par conséquent, le rétablissement de la ressource, en lui-même, n'entraînera pas une reprise des ventes canadiennes.

1.0 BACKGROUND

The Task Force on Incomes and Adjustment in the Atlantic Fishery was established "to examine the problems of overcapacity and unstable incomes that the fishing industry has faced for several years." The purpose of the Task Force is to develop a comprehensive, long term strategy for the industry.

Most of the issues to be addressed by the Task Force relate to the mix of economic and social structures within the industry in terms of resource access, technology, number of participants and public sector income support mechanisms. Since the Task Force was established, the Atlantic groundfish sector has experienced additional and severe declines in resource availability, the causes for which remain the subject of considerable speculation. The timing and level of resource recovery is presently unknown. Although the groundfishery has historically been the most volatile sector of the Atlantic Coast fishery and has experienced a number of pronounced crises in terms of income adequacy and stability, the apparent depth of the present crisis has not previously been endured.

The deepening of the groundfish resource crisis has heightened the need to seek permanent solutions to the perennial problem of income instability and inadequacy. At the same time, however, this crisis has shifted the focus for all industry and public sector participants as companies, plant workers and fishers all attempt to cope with the immediate financial pressures arising from sharply diminished fishing activities.

The work of the Task Force, however, is focused on formulating a strategic vision of a more viable, self sustaining industry capable of providing reasonable and stable incomes to its participants. One of the external forces which plays a pivotal role in the prospects for the Atlantic fishery is seafood markets. These markets exist primarily in the United States, Western Europe and the Pacific Rim. The following outlines the approach taken to scope out the general prognosis for commercial seafood markets and the results arising from this investigation.

2.0 APPROACH

The Canadian seafood industry consists of a myriad grouping of large, medium and small companies; however, the number of firms directly engaged in seafood marketing is relatively low. Many smaller companies pursue marketing arrangements through large Canadian processing firms or through independent seafood brokers in various markets.

To gauge the perceptions of those involved in marketing, discussions were initially conducted with

industry managers and officials of trade associations including Fisheries Council of Canada, Canadian Association of Fish Exporters, Seafood Producers Association of Nova Scotia and the Fisheries Association of Newfoundland and Labrador. Current literature from seafood marketing magazines and reports were reviewed and a summary of initial market perceptions for major species groupings was prepared to furnish a working hypothesis for further consultation and testing.

In mid February, major U.S. seafood marketing firms having strong, long term linkages to the Canadian Seafood industry were visited to gauge their reactions to these initial perceptions. Draft sector summaries incorporating the results of the consultations in the United States were circulated in early March to selected seafood marketing experts for their critical review and analysis. A listing of all those directly consulted is contained in Attachment "A".

3.0 SECTOR SUMMARIES

These summaries provide commentaries for the principal Shellfish, Pelagic and Groundfish sectors. Specific commentaries are provided for most commercially important species.

3.1 SHELLFISH

Species covered in this grouping include Shrimp, Lobster, Crab and Scallop. Other species such as Clams, Squid and Mussels are important only within localized areas or are not now prevalent as a proportion of Canada's shellfish industry.

3.1.1 SHRIMP

Shrimp resources in Eastern Canada are dominated by the Northern Shrimp fishery where quota levels approximate 28,000 tons and annual sales volumes exceed \$100 million. The Gulf of St. Lawrence and Western Newfoundland also have active commercial shrimp fisheries where the resource is harvested by inshore vessels for onshore processing.

Canada's coldwater shrimp resources are marketed in Northern Europe, Japan and the United States. Market demands in Northern Europe, where a preference exists for the distinctive taste and texture of *Pandalus Borealis* (Northern Shrimp), remains strong, especially for larger sizes. The Japanese market for the largest size Canadian shrimp also remains strong; however, some downward price pressure

has been experienced as Japan's economic growth slows. Shrimp sales in the United States have expanded rapidly in recent years, largely spurred by the increased and increasing availability of low cost, cultured, warmwater species. Shrimp is now the seafood of choice by American consumers with per capita consumption approaching 3 lbs., exceeding the consumption of groundfish.

Although production of cultured, warmwater shrimp is not increasing as quickly as it has over the past 5-10 years, there is still considerable scope for increased production from established producers in Taiwan, Thailand and Mexico and new producers are coming on stream in Vietnam and China. Cultured shrimp species tend to be somewhat bland with respect to taste and colour; consequently, industry participants do not anticipate a crowding out of wild production, especially Canada's coldwater product. However, cultured shrimp has induced some downward price pressure and has had a similar impact on shrimp as surimi did in the crab sector. The impact that aquaculture has had on shrimp prices was recently assessed by Mr. Bill Chauvin, publisher of the trade magazine "Shrimp Notes", who estimates that U.S. prices would be seventy percent higher if cultured shrimp had not been introduced to the market. Price levels are being re-established at lower levels. Smaller sized and industrial grade wild shrimp now compete directly with cultured shrimp. Given increased volumes, shrimp in this category is now emerging as a commodity product where price becomes the dominant selling feature.

Shrimp produced in the Gulf and Western Newfoundland fisheries are generally smaller and, as a consequence, price competition for producers in this fishery will continue to be very intense. Canada's Northern Shrimp fishery can anticipate continued price resistance for its industrial grade production such that average revenues per tonne will be somewhat lower than during the late eighties.

Notwithstanding the concerns about downward price pressure for shrimp products generally, most industry participants and marketers believe that Canadian coldwater shrimp will continue to enjoy market preference in key European and Japanese markets. Upscale shrimp markets in the United States may also present a viable sales outlet for larger sized *Pandalus Borealis*; however, U.S. prices are largely dictated by the production of this shrimp species in western states, particularly Oregon. Smaller Shrimp destined for the U.S. must be harvested and processed more efficiently in order to meet the more intensive price competition associated with commodity markets.

3.1.2 LOBSTER

The lobster fishery is generally perceived to be one of the most stable and viable fishing activities in Eastern Canada. Landings have increased significantly for each of the ten years prior to 1990 and has since stabilized at slightly more than one hundred million pounds.

The industry's success is attributed to an effective resource management regime introduced in the late seventies, including limited entry, coupled with the development of new markets, product forms and improved holding and transportation infrastructure.

Lobster markets are generally strong with roughly fifty percent of all landings shipped live to markets in United States, Europe and Asia. While there has been some price weakness in Western European and Japanese markets, demand continues to grow as new product forms are introduced. Opportunities for further market growth appear to exist in the United States also but require more product development. Recent price levels for lobster are seen as an impediment to expanding U.S. markets; however, should production remain stable, which appears likely given that present harvest levels now approximate historic peak levels of one hundred years ago, future market expansion efforts should become more focused on increased "value added" production.

The major risk factor in the lobster industry appears to be price volatility. Wholesale prices in the U.S. have ranged from \$2/lb. in 1990 to \$10/lb. in 1992. The industry's ability to absorb these price swings reflect, in part, the relatively low unit cost of harvesting. The challenge inherent in attempting to address price stability is formidable, given the large proportion of live sales directed to exclusive, high priced markets.

Overall, the Canadian lobster fishery is viewed by industry personnel as something of a Canadian success story. The product itself enjoys a high level of consumer demand; Canada has a commanding presence as a producer of clawed lobster, which is a highly differentiated product. Further opportunity for increased benefits arising from "value added" products can be expected to emerge as prices achieve stability and economic conditions in Western economies improve.

Risk factors appear to be limited to resource stability and the periodic health concerns associated with shellfish, both of which are perceived by industry participants as being properly addressed.

3.1.3 CRAB

Canadian Snow Crab resources are important components of the inshore fishery sector in the Gulf of St. Lawrence and along Newfoundland's Northeast Coast. Market prices for Canadian Snow Crab have declined in recent years due to increased production of Bering Sea Opilio (also marketed as Snow Crab) and increased production and consumption of surimi (artificial crab) in world markets.

Snow Crab resources in Eastern Canada are very strong and quota increases are possible in both the Gulf and Newfoundland regions. Many industry personnel suggest that quota increases should only proceed if market conditions warrant, since additional revenues derived from larger production volumes could be correspondingly offset by declining prices. Numerous references to the end of season quota increases in Newfoundland in 1991 were cited to support this view. The additional quotas provided in that year generated about 1.0 million lbs. of meat production, all of which were held in inventory until new lower price levels were established.

Canada's crab production increased from 8,000 tons in 1970 to 45,000 tons in 1985. Production then plummeted to 22,000 tons in 1986, and is now back to approximately 33,000 tons. While this level of production is significant, it pales in comparison to Alaska's Snow Crab production values which skyrocketed to 333 million lbs. in 1992.

Markets for crab are distributed throughout the United States, Europe and the Pacific Rim. Most frozen-in-shell production has been directed to Japan and other Pacific Rim countries. This production primarily comes from New Brunswick producers given the preferable shell colour/cleanliness of the Gulf resource, combined with Provincial regulatory restrictions (in Newfoundland) requiring a high proportion of shucked production.

Meat products are normally destined for U.S. and European markets. Increased U.S. production of Snow Crab and the growth in surimi production has relegated the Snow Crab meat market in the U.S. to a "commodity" business where price dominates. In real terms, the consequence of this shift in market position has been to reduce crab prices from \$9.65/lb. U.S. to the current \$4.80-5.00/lb. level. Even with anticipated market improvements, most industry practitioners do not anticipate significant upward price movement over the foreseeable future. Similarly, the European market has been subjected to downward price pressure due to increasing supply from Alaska, and growing consumption of surimi, especially in France.

Over the past couple of years, Canadian producers of Crab section/clusters (in-shell products) have directed part of their marketing efforts toward the U.S. market with some success. Newfoundland crab producers have benefitted from this development in that the American consumer is less sensitive about shell colour and cleanliness than Japanese consumers. As a result, Newfoundland crab resources which tend to have higher levels of shell impurities are more marketable in this product form. In 1993, Alaskan quotas for Opilio Crab have been reduced to 207 million lbs. The reduced supply to world markets is expected to improve market prospects for Canadian section products, particularly in the more lucrative Japanese market. There is some concern that this could see a shortfall in supply to the newly emerging

section market in the United States, possibly setting back the market development program in that country.

Canadian Crab production is now concentrated in peak landing periods. Movement toward an extended harvesting season would facilitate more orderly marketing and sharply reduce inventory costs, especially working capital requirements for meat producers.

Overall, the expectations for Snow Crab are mixed. While general improvements are likely in the coming year, the opportunity for market growth appears to be restricted to in-shell production. Meat markets can likely be expanded over time with orderly and aggressive marketing, coupled with more innovation in consumer friendly packaging such as smaller size packs for foodservice end-users.

The Crab industry will continue to experience intense competition from low cost surimi and from Alaskan Opilio producers. Industry observers fear that the recent Alaskan quota reductions are induced by market considerations, rather than resource concerns. In any event, recent year classes appear strong and continued high production levels for Opilio are foreseen. To counteract these challenges, the Canadian Crab industry must redouble its marketing efforts, reduce operating costs and extend its operating season as a means of improving continuous supply of high quality, cost competitive products to the marketplace.

3.1.4. SCALLOP

Canada's George's Bank Sea Scallop fishery is regarded by industry participants and marketers as another Canadian success story. With improved resource management in the 1980's, including introduction of an Enterprise Allocation regime in 1986, landings have increased, markets have stabilized and incomes and profits improved. Quota levels have remained at or near the record high levels of 1988. Current quotas provide for 6,200 tons of offshore scallop meats, destined for the fresh and frozen U.S. market. Inshore quotas approximate 4 - 5000 tons throughout the Atlantic Region and are usually sold fresh into domestic and Northeastern U.S. markets.

Industry respondents believe that the scallop fishery is probably the best managed sector of the Canadian fishery. The number of corporate entities in the dominant offshore sector is only seven, thus enabling a well co-ordinated and cohesive approach to resource management, harvesting, processing and marketing.

Generally, quota levels are stable, markets are secure (albeit almost totally reliant on the United

States) and incomes to fishermen among the highest in the Atlantic fishery. Canadian Sea Scallops compete with a wide variety of species, both wild and cultured, within the American market. However, the quality of Sea Scallops is regarded as second to none, thus positioning the species as a differentiated product, highly resilient to competition from other species.

A major consumer and regulatory issue in the past year or so has been the long standing practice of American fishers and scallop buyers to engage in "soaking" scallops. This refers to immersion in water and/or water with sodium tripolyphosphate (aids whitening) to increase weight by as much as 20-30 percent. This practice has been the subject of considerable concern recently and the U.S. regulatory agency (F.D.A.) is now moving to establish standards for moisture content to address this issue. Canadian producers are generally thought to not have participated in this practice and stand to benefit from the anticipated regulatory changes. In the meantime, Canadian producers emphasizing that their scallops are not soaked, are already enjoying increased benefits in market pricing and penetration.

Canada's recently developed Icelandic Scallop fishery was enjoying initial success with strong demand and attractive prices; however, the current Canada/France dispute over fishing rights along Newfoundland's South Coast has interrupted the development of this opportunity.

The strategic outlook for Canadian Sea Scallops is one of continued profitability and stability. It appears that the risk of market and price erosion, arising from surimi and aquaculture, has not yet posed a serious threat to the Canadian Sea Scallop fishery, as has been experienced to varying degrees in the Shrimp and Crab sectors.

3.2 PELAGICS

3.2.1 HERRING

Canada's Herring resources are distributed throughout most of Atlantic Canada. Total quotas amount to approximately 300,000 tons, although poor recruitment in recent years point to a declining trend. Roughly one-third of the Canadian quota remains uncaught each year.

World markets for herring are seriously oversupplied. Stocks appear to be strong and growing; North Atlantic supply alone is estimated to have increased by 600-800,000 tons. European markets for herring are lucrative but require unique specifications by region with respect to size and fat content. With European Community stocks very healthy and generally preferred, the 15% tariff barrier which is unlikely

to be relaxed in the foreseeable future constitutes an insurmountable obstacle for Canadian producers.

East European markets have been accessed with some success by Canadian producers capable of meeting market specifications and low prices. This has been achieved through creative marketing schemes involving barter arrangements, OSS (over the side sales) etc. The opportunity for extending or expanding such arrangements has become more restricted in recent years as these countries move toward conventional market based economies.

Pacific Rim markets for herring are dominated by herring roe sales with Canada's West Coast production preferred by most Japanese importers. East Coast production of herring roe for Japan competes with other producers from Western Europe and Russia. There are some indications that the long term prospects for sale of salted herring roe in Japan are not especially good. Higher quality demands and reduced prices are anticipated.

Opportunities for expanding Canada's utilization of its herring resource exist in highly specialized ethnic markets within North America, production of low cost products for Eastern Europe (usually requires barter deals), further utilization of herring for food aid programs through CIDA, or development of directed fisheries for meal/oil production (currently not permitted by Canada).

Industry personnel emphasized the need to develop a strategic plan for herring development and to carefully consider the merits of providing quotas to fixed gear fleets. Given current world supply and demand projections, there appears to be no opportunities for utilization of fixed gear quotas. Market demands for price and quality indicate that the prospects for greater utilization of herring resources are very limited. World supply is increasing while demand is decreasing. Herring has become a commodity business where Canada's comparative advantages are limited. Permitting more vertically integrated operations would help; production could be diverted to specialized niche markets, overall costs reduced and quality improved through large seiner fleets (greater than 30.5 meters) using Refrigerated Sea Water systems.

3.2.2 MACKEREL

Mackerel presents similar challenges to Herring in that world supply has increased while demand has declined. The November '92 edition of CAFE's Seafood Market Report (published by the Canadian Association of Fish Exporters) reports that "Small pelagics accounted for 20 percent of the volume and 9 percent of the value of the total fresh/frozen fish traded in 1980. In 1989, the share of small pelagics had

dropped to less than 15 percent of the volume and 5 percent of the value".

Beyond the resource/harvesting challenges of herring, mackerel has also proven to be a highly elusive fish for large scale harvesting programs. The migration patterns of mackerel are generally well known but the timing and speed of migrations have stymied the recent development efforts of Canadian firms seeking to improve Canada's utilization of this shared resource with the United States.

The migratory patterns of Mackerel dictate that its access to Canadian fishers will continue to be highly seasonal and opportunistic. If methods of detection and harvesting were developed or transferred from experienced foreign harvesters, the challenges of predictability of catch could be addressed. The economics of harvesting, processing and marketing would remain serious challenges, however, unless the resource is utilized as an opportunistic fishery with production directed primarily to meal and oil usage. Alternatively, production of mackerel for Canada's food aid programs could provide the impetus needed to develop/acquire the appropriate harvesting technology. (i.e. Dutch beam trawlers / Scottish pair trawlers).

A multi-year program is required to develop harvesting predictability and improve industry economics. Such a program could provide for development of specific niche market opportunities such as smoked products. The short term choices for Canada appear to be either a subsidized fishery for food aid programs or to permit meal/oil production. Over time, harvesting efficiencies might enable production of competitive products for world food markets. Absent such developments, Canada's utilization of this resource will likely remain at or below the current twenty-thirty percent level. An additional concern for Canada is the use of European fishing technology by the United States to improve that country's utilization of this resource. American success would likely preclude Canada's access to this joint resource.

3.2.3 CAPELIN

Capelin has been extremely important to Newfoundland fishers and processors during the late eighties. The Japanese market was especially strong given that Norway and Iceland were not producing, due to a resource failure in Northeast Atlantic stocks. Canada's key capelin stocks have experienced serious declines since 1990, Norwegian stocks have recovered and Japanese consumption of shishamo (dried capelin) is declining. Capelin are a short lived species and could recover very quickly; however, given reduced demand and increased supply, it seems likely that future capelin production will not achieve either the volumes or export values of the late eighties.

Future opportunities for capelin could involve value-added production where the final shishamo product could be produced and packaged in Canada. Japanese producers of shishamo are experiencing increased costs and difficulty in recruiting younger workers to their industry. The inherent challenge for Canada is to achieve cost competitiveness with other seafood processing nations in the Pacific Rim.

3.3 GROUND FISH

Reports from the recent International Seafood Conference and the Groundfish Forum 1992 suggest that world catches of all species could resume growth and achieve production levels of 115 million tons by the end of the century. Groundfish, however, has been in decline since 1987 and forecasters are divided on the issue of whether or not growth will resume and to what degree.

Over the period 1987-1990, North Pacific production of Pollock, Cod and Hake has declined by 14 percent to 6,420,000 tons while North Atlantic production of Cod, Haddock, Saithe (Atlantic Pollock) and Redfish has dropped by 26 percent to 2,520,000 tons. South Atlantic and South Pacific production of Hakes and Hoki has increased by 17 percent to 1,480,000 tons. Overall, groundfish dropped fourteen percent for the period. Optimists believe that the bottom has been reached and that slow recovery will begin in 1993 and 1994. Others point to the continued decline in Canadian stocks, signs of stress in key Alaskan Pollock and New Zealand Hoki stocks, and reports of quotas in excess of scientific advice, together with unregulated fishing, in Barents Sea Cod, to substantiate their view that further reductions can be expected. On balance, it appears that the views of the "optimists" are less credible.

In Atlantic Canada, groundfish catches have fallen precipitously over the 1982 to 1991 period from 820,000 tons to 616,000 tons. Cod led the decline with a reduction from 517,000 tons to 310,000 tons. The slide continues in 1993 with further reductions in cod quotas throughout the region.

A new supply source for groundfish comes from the aquaculture industry where substitute species such as Carp, Catfish and Tilapia are making major inroads to world markets for whiteflesh fish. World Aquaculture production has increased from 11.1 million tons in 1985 to 15.3 million tons in 1990. Projections for the year 2000 range from 22.0 - 33.0 million tons. Finfish currently accounts for approximately 60 percent of farmed fish production, most of which is Carp. Considerable research is being devoted to marine species such as Cod and Halibut; however, growth of freshwater species is proceeding much faster with new species such as Striped Bass already being commercially produced. The future impact of non-salmonoid finfish culture on traditional groundfish markets is very difficult to assess. Marketers of Canadian groundfish recognize, however, that this new source of whiteflesh fish is enjoying

continued success in world markets, particularly in the United States.

3.3.1 COD

Canada's Atlantic Cod has always dominated East Coast groundfish production. Canadian Cod products have been shipped primarily to U.S. markets where Canada has dominated the market. Throughout the late eighties, Canada's imports have comprised more than half the cod purchased by the United States. Iceland and Denmark have been distant second and third level suppliers (by volume) with respective production focused on fillets and blocks. Canada's fillet/block ratio fluctuates from year to year with block production dominating in 1987, 1988 and 1990, fillets accounting for the major share in 1984, 1985 and 1989, and production achieving an even balance in 1986.

Prices for Canadian Cod products fluctuated widely and unpredictably throughout the late eighties. In 1986 and 1987, prices for cod skyrocketed as a result of favourable exchange rates, strong market demand and reduced supplies to the United States market. The full impact of these price shifts for Canadian producers is illustrated in Attachment "B". The graphs show the prices received by Canadian producers net of inflation and exchange rate fluctuations for the period 1977 to 1992. When supplies were replenished, prices were brought in line with an apparent degree of retribution on the part of U.S. buyers. Prices declined below historic levels in constant dollar terms during 1988 and 1989. With Canadian and Scandinavian Cod quotas dropping in 1990 and 1991, prices improved again as major U.S. retailers and foodservice firms protected their long standing presence in Cod. In 1992, Canada's deepening cod crisis, particularly the moratorium on fishing the largest stock, Northern Cod, appears to have been the "last straw" as all major user groups have now switched, in whole or in part, to other whitefish species.

Alaskan Pollock and New Zealand Hoki are enjoying increased acceptance. Pollock producers are deep-skinning their fillets to reduce fat content, thus improving taste and retaining quality during storage. The prime users of Canadian Cod, including McDonalds, Burger King, Shoney's, Long John Silver, Red Lobster and Gorton's, are now using Pollock and find that consumers are pleased with the quality and taste and very pleased with prices. For Long John Silver and Shoney's, Hoki represents as much as 60-75 percent of their purchases and sales are building through seafood meals priced at \$1.99. The overall result is that Canada's dominance in the U.S. groundfish commodity market has ended.

Evidence that cod is in serious trouble is witnessed by current price declines. Block prices are currently reported at \$1.70-1.75 U.S. with low volumes, down from \$2.25 in late Fall, '92. The January/February '93 edition of Seafood Business quotes one importer..... "Cod fillets are becoming as

scarce as hens' teeth, and no one seems to care". In a similar vein, the January / February '93 edition of Seafood Leader quotes a processor..... "The overall lack of demand remains a major problem. There's nothing out there that's pulling anything through. The salt market is lacklustre, and the large industrial users are still switching to Alaskan Pollock, which isn't helping cod at all. I don't see a turnaround in sight"

For Canadian firms still producing cod, the price resistance in the U.S. for frozen production is difficult to counteract. Saltfish markets are also off by roughly 20 percent owing to direct shipments/landings of Barents Sea Cod from Russian vessels into Portugal and Spain. European cod prices are declining even though current market demand of 500,000 tons is only one-third the level absorbed just three years ago. Currently, English and French fishermen are fighting the importation of Barents Sea Cod from Russia and Norway which are believed to be depressing prices. The reality, however, is that recent quota increases in Barents Sea Cod do not offset quota reductions elsewhere in the North Atlantic. Reduced demand and downward price pressure are greater challenges for European Cod fishermen than supplies from the Barents Sea. Norway's cod resource recovery is underway and, together with that country's shared access with Russia to the 540,000 ton Barents Sea Cod quotas, opportunities in European markets are expected to remain very limited.

Scandinavian firms have been processing Barents Sea Cod for U.S. and European markets. Production is now moving to low-cost Pacific Rim processors in China, Thailand and Singapore. Canadian firms are also attempting to meet the price resistance through Pacific Rim and Far East processors. Daily wage rates are \$2.00 for China and Indonesia, \$6.00 for Thailand and \$25.00 for Singapore. Labour overheads in these countries are virtually non-existent and there is no resistance to use of automated processes. Freight costs of roughly \$.25 per lb. from the Pacific Rim to the United States are no deterrent to accessing productive labour at roughly \$.25 per hour.

Canadian processors and marketers of North Atlantic Cod are uncertain as to the potential impact of cultured finfish species such as Catfish and Tilapia. Nonetheless, Catfish sales are now at the 500 million lb. mark (about the same level as cod in recent years) and are expected to double within the next fifteen years. Tilapia is a relatively new species for the United States market; however, sales are growing rapidly and are projected to surpass Catfish sales by the year 2010. At present, both species are tied as the fastest growing seafood items in the U.S. marketplace. These species are primarily marketed fresh in U.S. markets, at relatively high prices of up to \$3.50/lb. and even higher. However, more Third World producers in countries near the Equator are introducing aquaculture. Central American Tilapia farmers are now producing for 70 to 80 cents a pound and production costs are expected to decline over time with experience. Tilapia from Far East producers are now grown to market size, producing 3-5 ounce fillets,

in only eight months. Icelandic and American firms are now reported to be engaged in joint venture arrangements with Catfish and Tilapia producers in Nicaragua and Columbia.

Cod is facing intense competition from other low-cost wild production and increasing market encroachment from cultured species. For Canadian producers, the challenges posed by the resource crisis are profoundly exacerbated by reduced market demand and declining prices.

COD'S FUTURE

Despite the current resource crisis and the flood of market acceptable substitutes, distributors of Canadian Cod believe that a resource recovery of Canada's prime groundfish can be successfully marketed in the United States, but certainly not in the traditional block and fillet market segment at historic price levels. Intrinsically, Cod appears to have some advantage in terms of taste, texture and potentially, size. These characteristics can be used to advantage but the price differential between Cod and its "pretenders to the throne" is likely to be marginal. Furthermore, the continuity of supply and consistency of quality must also be competitive with other species.

The message from marketers is to "get out of the commodity business (blocks and low end fillet products) and trade up". Many of those interviewed referenced the success of FPI and NSP with their Imperial Cuts/Simple Serve (portion control) products. These products were very well received within the foodservice sector and commanded price premiums of \$.75 - \$1.00 per pound. Other "value-added" product lines such as nuggets and strips are also seen as part of the solution. There are substantial risks and requirements however.

- The price elasticity of this market is unknown. Should Canadian and/or other Cod harvesters produce large volumes of upscale product lines, it is not clear how large this market segment can become. It may be that Cod in these product forms may have to be aggressively promoted to reposition the species at a new, higher level than other whitefish species;
- Other species could follow this lead to some extent. Sophisticated and strategic marketing concepts must be tied to production volumes to manage the transition. Besides Cod's inherent comparative advantages in taste/texture, its larger size (if harvested selectively) provides a further advantage for "portion control" products, in particular. Most wild production of competing species, particularly Pollock, Hoki and Hakes are produced at sea, in factory vessels which are best equipped for high volume, low value added product forms (blocks, 5lb. fillet packs, etc);
- Continuity of supply, price competitiveness and consistent quality are pre-requisites to competitiveness in future markets for all whiteflesh species. In the view of groundfish processors

and marketers, Canada's present resource management, harvesting and processing infrastructure does not now lend itself to responding to these market imperatives;

- Resource recovery is expected to be protracted. A slow recovery could have benefits if cod is being re-positioned as an up-scaled product. However, more stringent resource conservation measures will reduce catch rates and therefore, increase harvesting costs. These cost increases must be counteracted by greater efficiency and productivity in both harvesting and processing operations. Average fish size is seen as a critically important part of this strategy. Besides enabling production of appropriate sized portion control products, larger size cod (3-6 lbs.) has the further advantage of reducing unit labour costs in processing;
- All groundfish products are locked into the very competitive price/value foodservice grid with other protein sources. Competing food producers/marketers for beef, chicken and turkey are becoming more innovative and cost effective. Per capita consumption of seafood in the United States declined in recent years from 16.4 lbs. to 14.9 lbs in 1991. Groundfish consumption has dropped from 2.8 lbs. to 2.2 lbs. per capita. Further reduction in U.S. per capita consumption is anticipated. The marketing sophistication and aggressiveness of other protein producers must be met to prevent further seafood market erosion;
- Canada's regulatory and social programs are regarded as impediments to cost competitiveness. Most new groundfish competitors do not incur these costs and several respondents questioned Canada's ability to successfully compete with Third World producers of either wild or farmed whiteflesh species, unless public sector policies and programs are revised to reflect the realities of global competition;
- Scandinavian producers of Barents Sea Cod have the ability to move their production toward upscale products. The current price resistance to Cod being experienced in the U.S. market may provide the incentive to these countries to move in this direction and take a commanding presence in the marketplace. Norway is a particularly serious threat given its direct access to Barents Sea Cod and the ability to produce upscaled packs from fresh production.
- Efforts to upscale cod in the mid to late eighties by the North Atlantic Seafood Association were unsuccessful. It must be noted, however, that the phenomenal market demands of the 1986-87 period, followed by the emergence of the resource crises in 1989 caused the industry to divert its focus on upscaling, thus negating the efforts of N.A.S.A.

Another alternative for Cod noted by several respondents reflects the current industry profile of southern Nova Scotia where the harvesting side of the industry has successfully been restructured through the introduction of an I.T.Q. regime. At the same time, however, the success of those that remain seems largely dependent on sale of whole cod for the fresh fish market in the United States. Some industry personnel believe that much of this cod is processed in the United States in fillet form for fresh and frozen sales by New England processing plants using low cost, immigrant labour employed casually to avoid labour overhead charges.

Irrespective of present exports of whole cod, U.S. marketers believe that production of Canadian Cod for fresh markets in the Northeastern U.S. will continue to represent a viable and significant outlet for Canadian fishermen, especially in southern Nova Scotia.

3.3.2 REDFISH

Canada's Ocean Perch is currently being presented as Redfish/Rosefish in an effort to escape a negative market image as a species of low value, poor quality and inadequate shelf life.

Quotas are now stable for key Redfish stocks and Canadian firms are increasing sales and values through more focused and aggressive marketing. Recent product developments include deep skinning, packaging in gas and adding ascorbic acid, all of which is intended to improve appearance and preserve quality.

One of the key challenges for Redfish producers is the relatively low value of this species. Smaller size frozen fillets are sold in the \$1.25 -1.35 U.S. range, medium size (2-4 oz.), up to \$1.45 and larger,(4oz. and over) fillets at \$1.70 - \$1.90. These price levels are relatively attractive for Redfish but can only be profitable with very high levels of productivity in harvesting and processing. Redfish catch rates are typically much higher than other groundfish and use of automated filleting and deboning equipment is enabling better utilization of this resource. Additionally, producers are directing as much of their production as possible to fresh sales as a means of expanding market demand and improving revenues.

Beyond the measures now being taken by industry, respondents did not perceive a requirement to do things much differently with Redfish in future. Basically, this species is now cost competitive with other groundfish species such as Alaskan Pollock. The emphasis for producers is to improve marketing efforts and reduce costs in order to remain competitive and to expand markets in keeping with resource capabilities.

Concerns expressed by Canadian producers relate to the sustainability of Redfish catches given increased fishing effort by Canadians and the fact that, while Redfish is now competitively priced, there is really no profit margin at these prices.

3.3.3 FLATFISH

Canada's Flatfish production has largely been the domain of one company - Fishery Products International. FPI used its almost exclusive resource access and marketing strength to position its American Plaice, Yellowtail Flounder and Witch production into premium markets in the United States. This was possible by "fishing to market" and exercising total control over quality.

Absolute control over continuity of supply and quality allowed marketing programs to be more exclusive and less price sensitive. Flounder fillet prices were moved upward in sustainable increments over time to achieve the present price level of approximately \$3.50 per pound.

The resource crisis in Cod has overshadowed the crisis in flatfish for Canadian groundfish processors; however, for F.P.I. the quota losses for flatfish have been especially damaging; flats accounted for as much as 40-45 percent of the company's groundfish production only a few years ago. Resource losses have caused shortages for customers. When premium prices are paid for exclusive, high quality products, tolerance for shortfalls in supply is very low. Consequently, customers are substituting and/or removing flats from their menus. That Canadian resources are devastated by overfishing and that Canada is no longer a reliable supplier is of utmost concern to upscale markets.

For those customers that have switched to other species, as is the case with Cod, the challenge of maintaining presence and recovering markets will be formidable. For flatfish, resource recovery is perhaps even more dependent on control of foreign overfishing than Cod. While Canada is taking appropriate measures to facilitate a recovery of Cod resources, its ability to address the decline in Flatfish resources seems less certain and, to the extent that this perception is shared by the U.S. marketplace, the industry's ability to maintain markets and achieve premium prices is seriously threatened.

3.3.4 GROUND FISH SUMMARY

Present Situation

Canadian processors and marketers of Canadian groundfish in the United States are expressing

serious concerns as to the prospects of Canada's re-entry to this market when resources recover. Points noted include:

- Canada's dominance in U.S. Groundfish was tied to the supply of commodity packs to high volume users. The trends in price instability and resource declines over the past five years or so have caused customer concern as to the price/value relationship of cod and other Canadian groundfish products. The severity of the current resource crisis has caused all major users to switch to substitute species with relative ease given lower prices and consumer acceptable quality/taste;
- A new, lower price level has been established in the U.S. groundfish commodity markets such that Canadian Cod cannot reasonably be expected to re-enter this market unless price levels fall in line with that of the substitutes;
- The ability of Canadian producers to compete at lower price levels is perceived as very questionable given labour costs, labour overheads, regulatory/social costs and productivity levels in both harvesting and processing. Furthermore, resource conservation measures and lower stock biomass levels will mean lower catch rates and thus, higher raw material costs;
- Increased and increasing competition from low cost substitutes must be regarded as the reality of the future. While there is some expectation of resource reductions in competing groundfish stocks such as Alaskan Pollock, New Zealand Hoki and Barents Sea Cod, further expansion of cultured whiteflesh finfish production is seen as inevitably leading to a new source of competitive substitutes.

Response Measures

Canada must refocus and restructure its groundfish industry to enable repositioning toward upscale, value-added products. Cod is regarded as intrinsically superior in taste, and texture and also has a potential size advantage over most of the species that are now satisfying the needs of the U.S. groundfish market. Requirements include:

- Resource Management/Conservation regimes must ensure that the average size of fish harvested is larger than in the past to provide for production of higher volumes of value-added, portion control products and to reduce handling/processing costs by reducing labour inputs;
- Industry productivity must move to the leading edge, relative to other world producers. This will

necessitate optimum use of technology but perhaps, more importantly, labour productivity must be significantly improved;

- Continuity and security of supply are prerequisites to upscaling production, as is consistency in production of high quality products;
- Marketing programs to re-introduce Canadian groundfish as an upscaled product are needed. Market developments must precede/accompany increased production. The upscale segment of the market is not supply driven. Fish must be marketed, not sold.

Risk Factors

Even with a concerted strategy to reposition Canadian groundfish in the U.S. marketplace, there are potential pitfalls:

- The recovery of Norwegian fish stocks and the emergence of Norwegian/Russian alliances in the Barents Sea Cod fishery could see similar strategies pursued by these and other alliances. The price resistance to Cod applies to all Cod producers; other suppliers are likely to employ similar strategies. Notwithstanding this risk factor, much of the Cod resource harvested in the Barents Sea and Alaska is produced by factory ships which are not conducive to "value-added" production, hence the need to rely on twice frozen product for upscale products. Also, Canadian producers have the advantage of fresh and once frozen production when resources recover;

Groundfish production is now moving to Third World producers with the aid of Western technology. These producers are low cost and highly efficient and their ability to adapt/adopt production technology to upscale products is proven. The issue of reliance on frozen raw material inputs remains a structural disadvantage for these countries;

- Market promotion and development must be more extensive and focused than ever before. Major food firms such as Tyson Foods and Con Agra have recently moved to integrate fishing industry firms into their global food business. The marketing, financial and purchasing power of such firms will offer new more aggressive competition to Canadian seafood marketers;
- Structurally, the Canadian harvesting and processing sector must become more cost effective and market driven. Given the industry's current financial difficulties arising from the resource crisis, its capacity to embark on structural change is limited.

4.0 CONCLUSIONS

Canada's major seafood processors and marketers believe that the United States groundfish market, particularly for commodity pack items, has moved to low cost substitutes for Canadian cod, pollock, flounder, etc. The expectation is that Canada's dominance in this market has now ended and that a resource recovery, in itself, will not signal a return of Canadian products to this market.

Consumers in this marketplace are primarily concerned with the price/value relationship of groundfish. Other species are of consistent quality, available continuously and are much lower priced than Canadian groundfish. Canada can only re-enter this market if it can compete on the basis of price. In the absence of a phenomenal increase in productivity, this would mean much lower processing sector wages and prices to fishermen. The alternative is to leave the sector to the "substitutes" and to reposition Canadian groundfish, especially Cod toward higher value, upscale markets. This option is not without its challenges and risks. The structural requirements for Canada's domestic harvesting and processing sector are also significant.

Markets for Shellfish are generally stable and expectations for the long term see this sector continuing to do well because of the distinctiveness of species such as Scallop, Lobster and Shrimp. Crab is expected to remain stable also but cost competitiveness in crabmeat markets will continue to challenge Canadian producers.

Opportunities in Herring, Mackerel and Capelin are limited. Markets are declining while supply is increasing. Competitive market forces do not position Canada well to compete in Herring and Mackerel food markets, hence the need to pursue meal/oil production and/or food aid programs.

The market challenges and opportunities of the future reflect a very dynamic and volatile world environment. Canada's groundfish sector faces very serious market challenges. Even with a solid resource recovery, Canada's dominant position in mainstream U.S. groundfish commodity markets is unlikely to reemerge.

Our future prospects for Canada's groundfish sector depend on its ability to become the low cost producer of upscale, value added products. Success in this regard will position this sector to provide reasonable incomes for its fishers and processing workers. Adherence to the old strategy of selling commodity packs will most certainly mean an even lower standard of living for industry participants. The requirement for change is evident; the opportunity is real; the choice remains.

LIST OF INTERVIEWEES:

Jane Barnett	Canadian Association of Fish Exporters, Ottawa
Ron Bulmer	Fisheries Council of Canada, Ottawa
Bruce Chapman	Fisheries Association of Newfoundland and Labrador, St.John's, NF
Terry Colfer	Canadian Consulate General, Boston, MA.
Steve Greene	Clearwater Fine Foods, Inc., Bedford, N.S.
Tim Kaiser	Laurence Sweeney Fisheries Limited, Halifax, N.S.
Berch Lake	The Fortune Seas Companies, Essex, MA.
Leonard Lamanuzzi	Clouston Foods, USA., Danvers, MA.
Percy McDonald	ConPak Seafoods Inc., St.John's, NF
Jack McManus	Canadian Consulate General, Boston, MA.
Carl Moores	F.W. Bryce, Inc., Gloucester, MA.
Arne Pettersson	National Sea Products, Inc., Portsmouth, N.H.
John Risley	Clearwater Fine Foods, Inc., Bedford, N.S.
Sandy Roche	Fishery Products International, St.John's, NF
Michael Rooney	Canadian Consulate General, Boston, MA.
Donald Short	Fishery Products International, Boston, MA.
Cecil Smith	Mersey Seafoods Limited, Liverpool, N.S.
Geoff Southwood	Clouston Foods, Montreal, Quebec
Roger Stirling	Seafood Producers Association of Nova Scotia, Halifax, N.S.
Karl Sullivan	SeaFreez Foods, Inc., St.John's, NF
Bruce Wareham	National Sea Products, Arnold's Cove, NF
Jerry Ward	Connors Bros. Inc., Avon, MA.
Ron Whynacht	National Sea Products, Lunenburg, N.S.

COMPLIANCE DOCUMENT

SECTION 1



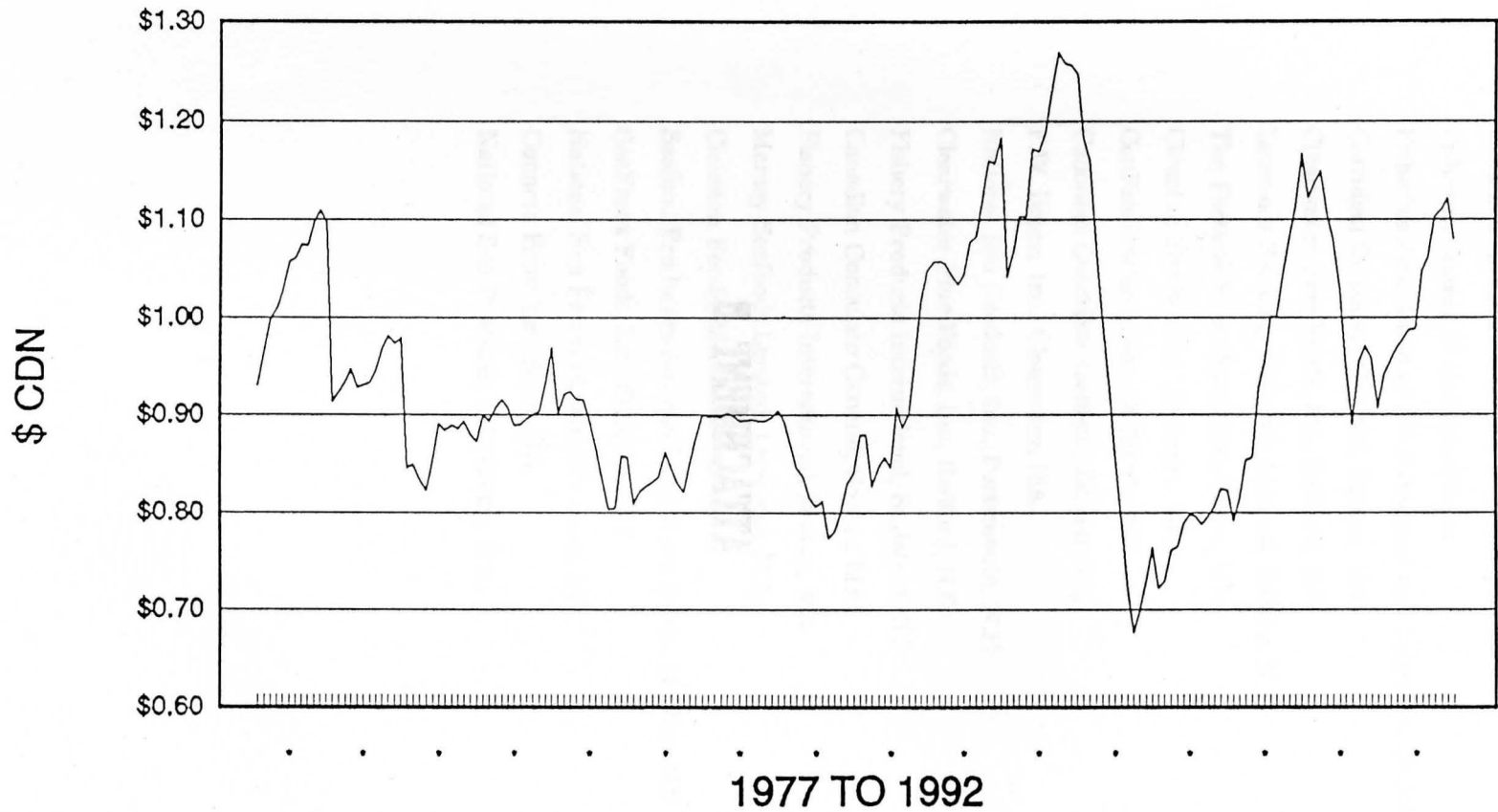
ATTACHMENT B

SECTION 1

COD BLOCK NUMBER 1551032

COD BLOCK MARKET PRICES

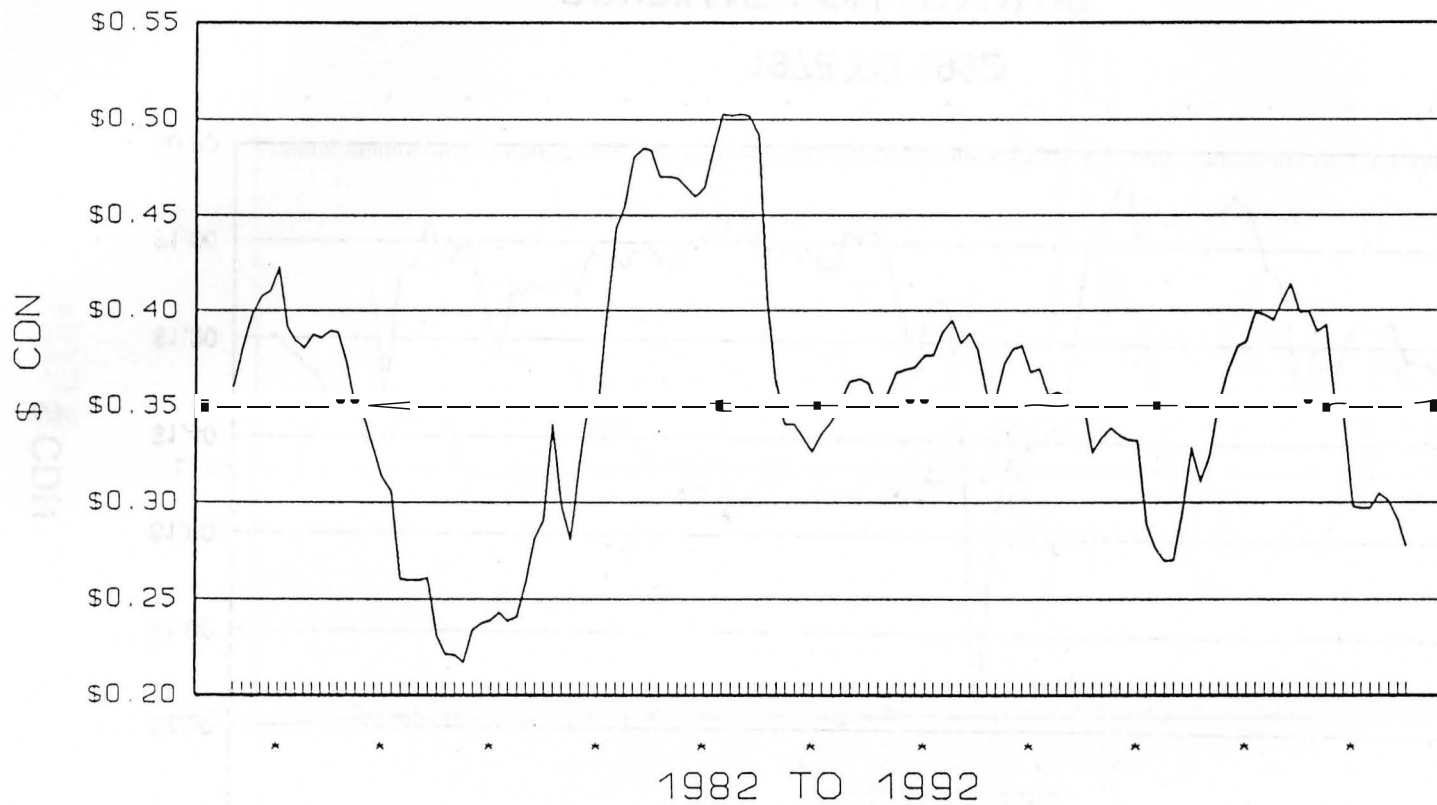
CONSTANT DOLLAR SERIES



— CONSTANT DOLLAR VALUE

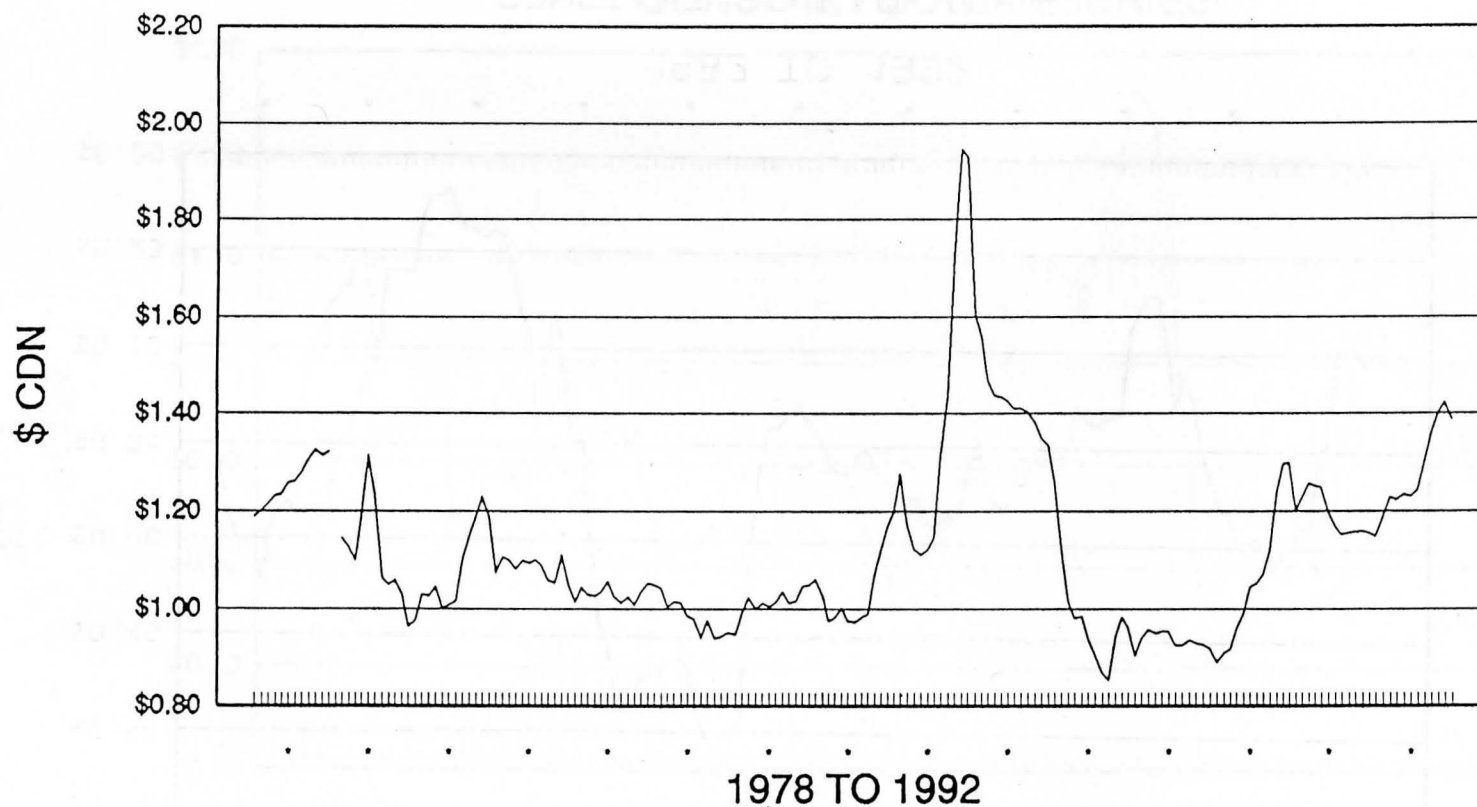
COD MINCED BLOCK MARKET PRICES

CONSTANT DOLLAR SERIES



— CONSTANT DOLLAR VALUE

COD BONELESS LAYER PACK MARKET PRICES CONSTANT DOLLAR SERIES



— CONSTANT DOLLAR VALUE

FOR 1985 TO 1992 PRICES REFLECT 10 LB LAYER PACK, 8-12 OZ

COD BONELESS 5-LB MARKET PRICES CONSTANT DOLLAR SERIES

