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Fishery Products

Bulgarian fish imports upward

2004

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Report Highlights:

Consumption of fish in Bulgaria has expanded rapidly in the last three years to reach record high size in 2003. Fish imports has grown from \$10.0 million in 2000/2001 to above \$23.0 million in 2003. The U.S. fish exports to Bulgaria in 2003 increased 170 percent over 2002 and reached \$3.1 million, mainly in a form of frozen mackerel. Growing local demand along with dynamically developing tourist industry, HRI and retail sectors are proving promising opportunities for further growth in the future.

Includes PSD Changes: No
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Summary

Over the past 3 years, the Bulgarian market of fish and fishery products has undergone a dynamic development. This was related to restructuring and privatization of local production, and Government's efforts to harmonize local trade practices/regulations with the EU. The key factor has been the expansion of the retail and food service sectors. In addition, growing consumer income led to higher demand for new food products including fish/fish products. A significant factor for higher consumer demand and fish consumption development was the tourist industry growth.

In 2002 and 2003, both local supply and imports of fish and fishery products increased. Higher volumes were accompanied by increased variety of processed products and convenience packaging. Currently, there are about 50 fish species on the market but dominant are still those that are less expensive (mackerel, gobies, sprat). In 2002 and 2003, however, there has been a gradual trend of increased consumption of higher value fish products and more expensive imported fish species such as tuna fish, salmon, shellfish etc. According to industry and experts expectations, the market growth is likely to continue in 2004 and in the near future. As of 2002, the size of the fish consumption was estimated at \$12.0 - \$15.0 million. In 2003, the market size has grown and is estimated at close to \$20.0 million.

Despite revitalization and growth in local fish production, various environmental limitations and capital needs are forecast to prevent faster growth. Thus, still limited supply and increased demand, provide very good potential for fish/fishery products imports. In addition, imports usually consists of fish/fish products not produced locally.

In 2002, total fish imports were 17,655 MT for \$12.3 million. In 2003, total fish imports were 25,700 MT for \$23.5 million as only frozen fish imports were 20,400 MT for \$ 12.0 million. The U.S. exports of fish products to Bulgaria is mainly mackerel, and smaller quantities of salmon, tuna fish and other species. In 2003, U.S. seafood exports to Bulgaria were record high and reached \$3.151 million (4,412 MT) or a growth of 170 percent in value and 182 percent in tonnage compared to 2002.

Production

In the past, prior to 1989, Bulgaria used to produce about 20,000 MT of fish at fish farms, dams and rivers (non sea fish). In the period after 1989, the fish farms and the fish processing industry have gone under major restructuring and privatization. The sea catch also declined due to restructuring of the marina industry (fish vessels etc.). Only after 2000, these processes were completed and the fish industry started to develop and to register some growth.

In 2002, total fish production was 15,240 MT compared to 6,764 MT in 2001. The major portion of this production was sea fish, 12,860 MT or 82 percent. This is a major increase compared to the previous year when production was only 1,500 MT. The second category is fresh-water fish farms production which accounted for about 10 percent or 1,500 MT. The industry's forecast for 2003 production was for a growth to 17,000 MT. According to official MinAg forecast, 2003 total fish production is currently estimated 20,000 MT (no official data is released yet). Higher production is stimulated both by better local market opportunities as well as by export opportunities for fish/caviar to the EU, after the EU ban on Bulgaria was lifted (Note: the EU ban was imposed in 1999 and lifted in 2002).

Table #1. Production Table

| 2002 and 2003 (first half) production in metric tons by fish species | | | |
|---|--------|-------------------|---------------------------|
| Fish species, | 2002 | 2003 (first half) | 2003 (Annual Estimate) |
| Sea fish | | | |
| Sprattus sprattus | 11,595 | 2,000 | NA |
| Engraulis encrasicolus ponticus | 237 | 90 | NA |
| Trachurus mediterraneus ponticus | 141 | 60 | NA |
| Psetta maеotica | 135 | 40 | NA |
| Gobidae | 141 | 131 | NA |
| Total sea fish | 12,680 | 2,300 | 13,000 |
| Shellfish and other including calms, rapana and shrimps | 754 | 172 | 1,000 |
| Total sea fish and shell fish | 13,434 | 2,473 | 14,000 |
| Fresh water fish | 1,986 | 626 | 3,000 |
| Total fish | 15,420 | 3,099 | 17,000 |

As it is seen from the production table, Bulgaria does not produce the fish species in high demand by consumers such as mackerel, tuna fish, catfish etc. The only species in abundant supply are sprats (anchovy). The other locally produced fish species have seasonal fluctuations in their supply due to climatic and migration changes.

Sea fish production

Local production of fish from the Black Sea has sharply declined in the recent years due to reduced biodiversity as a result of illegal catching and pollution. Environmental problems led to almost complete absence of Black Sea mackerel.

- Sprats: Production of sea sprats (anchovy) continued to account for 90 percent of sea fish production. This situation is expected to not change in the near future. However, this fish is not in high demand on the market and is usually used for less expensive canned products.
- Turbot is one of the fish species protected by law due to intensive catching in recent years due to its high consumer demand and good prices. This led to a decline in turbot resources in the Black Sea. As a result, the Ministry of Agriculture (National Aquaculture Agency/NAA) is determining annual catching quotas. In 2002, when such a quota was not introduced, the turbot production increased from 56 MT to 135 MT. In 2003, the production quota is for 50 MT.

River fish production

The river fish production from the Danube River is not significant, varying from 250 MT in 2001 to 420 MT in 2002 and about the same in 2003.

- The most popular river fish is sturgeon. Due to environmental reasons (see turbot problem above), the Government determines an annual catching quota; for 2003 this quota is 22 MT.
- Another popular Danube fish is the Danube herring. In 2002, this production increased almost 4 times compared to 2001 due to artificial breeding performed by the NAA. Thus, Danube herring production in 2002 was 141 MT and is expected to be higher in 2003.

Fresh water fish production

This type of production is split between fish production at natural water basins and dams; and production and fish farms.

- Currently, Bulgaria has 21 large (above 500 HA); 54 middle size (100-500 HA) and 4,700 small size dams. This type of fish production is not significant, 1,633 MT in 2001; 1,457 MT in 2002 and about 1,500 MT (est.) in 2003. The three most produced species are carp/Cyprinus carpio (520 MT in 2002); Hypophthalmichthys molitrix (300 MT in 2002) and Carassius auratus (250 MT in 2002).
- In 2003, the MinAg made a survey of fish production units/farms in the country and the result was that 127 farms are producing fish/shell fish for direct consumption and for breeding material. Out of those, warm water (carp) production units are 78; cold water (trout) farms are 39; mixed type – 5 farms; clams farms – 3; and for sturgeon – 2 farms.

Fish production at fish farms is estimated at close to 3,000 MT in 2002 and slightly higher in 2003. The major fish species are trout, 1,100 MT in 2002; and carp, 1,100 MT. Carp consumption usually accounts for at least 40 percent of total fish farms production due to its high seasonal demand around early-December due to local religious holidays. Trout (*Oncorhynchus mykiss/Salmo gairdneri irideus*) production has increased over the past 2 years due to higher demand for better quality fish. For example, 2002 trout production was 14 percent higher than in 2001 and another 10 percent growth was estimated for 2003 over 2002.

Production of breeding material

Production of breeding material is still a developing business. In 2002, total number of produced breeding fish was 22 million fishes or 567 MT. The most breeding material was produced for trout (*Oncorhynchus mykiss/Salmo gairdneri irideus*), 13 million fishes or 156 MT; and carp (*Cyprinus carpio*), 4 million fishes or 256 MT.

- Special artificial breeding is required by law for these companies which produce and export caviar within annually determined export quotas by CITES. The distribution of this annual quota is made by the Ministry of Environment and Waters. The major quota condition is that any one kilo of exported caviar requires 120 breeding fishes released into the river. If breeding requirements are not met by the country, CITES reduced the quota. Annual beluga caviar quotas determined by CITES are declining every year, from 2,500 kilos in 2000, to 1,875 kilos in 2001 and 1,720 kilos in 2002 and 2003.

In 2003, there were only two caviar exporters (three exporters in 2002), "Beluga"/Vidin town and "Parpen Chobanov"/Plovdiv town, with respective quotas of 860 kilos of beluga caviar

and 10 kilos of Russian sturgeon caviar per a company, or total 1720 kilos of beluga caviar and 20 kilos of Russian sturgeon caviar for the country. Both companies provided required artificial breeding in 2003.

Rapana, clams and shrimps

In 2002, this type of production in 2002 was limited to only 750 MT, 77 percent down from 2001 due to new regulations limited rapana catching by bed trawls which negatively affect biodiversity. At the same time, clams production (Black Sea clams) increased almost 800 percent to 55 MT in 2002.

Processed fish products

Processed fish production is at 2,800 MT in 2002 and above 3,000 MT in 2003 (official data). Estimated production is higher, close to 5,000 MT. These products include canned fish; salted fish; cured fish; fish salads; fish pate; and various ready-to-cook fish products. The net revenue of the top three companies – producers (processors) in 2003 was estimated at \$1- \$2.0 million per a company.

Production Policy

In 2002, the newly approved legislation (Fishing and Aquaculture Act), positively affected the development of the fish industry. Based on an elaborated by the MinAg national strategy for the development of the aquaculture, currently the NAA requires registration and licensing of producers. These regulations contributed to the shrinking of the “grey” production and thus, legitimate fish production increased.

Bulgaria received a grant of 2.0 million Euro under EU-PHARE project to improve restructuring and harmonization of the legislation in the area of aquaculture. The goal is a sustainable development of aquaculture and fisheries, and improvement of the state and industry control systems. Another target is the establishment of modern laboratories able to make research of fish diseases. A specialized lab will be dealing with food safety and quality control of fish products.

The EU-PHARE funds will be also used for establishments to 6 fish wholesale markets in the period 2004-2006: two along the Black Sea coast; two along the Danube river; one in Sofia; and one in Plovdiv.

The aquaculture industry is actively participating in the restructuring of the sector. Currently, Bulgaria has 6 EU approved establishments for exports of fish and fish products: one for trout; two for caviar; one for canned non-sea fish; and two for processed sea fish. In 2003, the National Veterinary Agency and NAA will start shutting down all fish establishments which do not meet EU sanitary and hygiene requirements for food safety (local Regulation #10). It is expected, that in the period 2004-2005, Bulgaria will expand the number of EU approved fish establishments up to 10.

The EU-SAPARD program provides fish industry access to a subsidized investment. However, this program is good only for fish farms which can prove their private ownership and long-term leasing contracts for dams. At the same time, companies which deal with fish production in rivers or water dams do not have concessions for more than 3 years (current concession law requirement) which is the major obstacle for them to access SAPARD funds in order to improved their production. Therefore, as of 2004, there are only 3 SAPARD investments but only in fish processing, not production. For this reason, the NAA intends to appeal for modification in water dams concession regulations to allow longer term concession

contracts for 15-20 years. Due to these difficulties (and due to the market potential/local demand and exports to the EU), most fish producers plan to put short term investment in trout farms.

Consumption

Bulgaria used to be amongst countries with the lowest fish consumption in Europe. The consumption pattern was a result of a lack of local eating traditions as well as lack of well organized market infrastructure, low supply, and not appropriate marketing.

However, over the past 2 years, market of fish/fishery products has developed quickly with the expansion of the retail outlets and food service sector. Another factor for the fish consumption development was the growth in the tourist industry. In 2003, the growth in the number of tourists was 18 percent or total 3.5 million tourists with Germany ranking first, followed by the United Kingdom. Most of these tourists visit the Black Sea resorts in the summer and fish is in high demand during this period.

According to the official National Statistical Institute data, the consumption per capita in 2000 was 3.3 kilos, and it slightly increased to 3.5 kilos in 2002. According to various market surveys, however, this consumption is higher, around 4.2 kilos per capita if food service sector is included. Total fish consumption is estimated from 24,000 MT (MinAg) to 32,000 MT- 34,000 MT per year (industry estimates). About 5,000 – 6,000 MT of the total consumption is non-sea fish.

Consumption figures (2003 Noema marketing survey) considerably vary depending on a number of factors as follows:

- Consumption of fish at home is estimated at 90 percent of total fish consumption. About 10 percent of consumption is at HRI sector. This proportion tends to change to expand the share of the HRI sector vs. home consumption share;
- About 18 percent of Bulgarian consumers prefer to consume fish compared to any other type of "meat" such as red meat and poultry;
- About 25 percent of Bulgarian consumers choose to buy fish instead of buying red meat or poultry;
- The major motivation for purchasing decision is the consumer perception that fish is a healthy food. Second and third ranking motivations are respectively price and consumer taste preferences;
- Purchases of fish are made mainly at specialized fish store (55 percent) followed by hypermarket purchases (40 percent) and about 5 percent by other retail outlets;
- Urban population is dominating in the overall fish consumption compared to rural population. Noema's marketing survey shows that urban consumers buy/consume fish at least 3 times monthly compared to rural consumers with 2 times purchases per month. The main reason for this difference is consumer income which is higher in urban areas. Another factor is the lack of well developed distribution system which can deliver fish to rural consumers. The retail and food service outlets in rural areas are practically not equipped to handle appropriately fish or other frozen food sales. Therefore, rural fish consumption is limited to fresh fish occasionally sold by a near-by fish farm either to the retail or the food service outlets. In some villages, retailers

have not regular "fish days" when they bring small quantities of usually frozen mackerel and sell it for a day or two.

- Households purchases for home consumption are mainly of frozen fish (60 percent) vs. fresh fish (40 percent);
- Preferred fish species for home consumption are less expensive species such as mackerel, sprat, goby and carp. Preferred fish species when consumed in the food service outlets are more expensive species such as trout, tuna fish, salmon, turbot, and shell fish;
- Similar to other food products, households with less members and higher income, consumer higher volume and more expensive fish products;
- The best sellers fish products in food service outlets (above 35 kilos per month) are shark, turbot, trout, salmon, European bass (Morone labrax), and caviar.

Consumption pattern by type of fish and fish products has the following trends:

- The most popular fish specie is mackerel. The market size is 15,000 MT-16,000 MT year. Average household consumption is above 2.0 kilos per month;
- Next in consumption is sprat fish with average household monthly consumption of about 1.0 kilo;
- In certain areas along the Black Sea coast, there are other more popular fish species such as goby fish in Varna town where households consume about 2 kilos on average per month;
- According to a marketing survey among households, the most preferred fish specie for home family consumption is locally called white fishes (pike-perch, Black Sea shark)/Lucioperca lcioperca;
- A nationwide marketing survey shows that in 2003, the cities with the highest fish consumption per capita are Sofia, Bourgas, Varna, Plovdiv, Razgrad and Veliko Turnovo.

An indication of a growing fish consumption is the fact that almost all retail chains started to open fresh fish pavilions, Metro in 2002, and Billa in 2003. Initially, these pavilions were most active in the high season consumption (around early December due to traditional religious holidays) but gradually expanded their sales throughout the year.

Frozen fish and processed fish shelf space in retail outlets also increased significantly. In 2003, the shelf space at hypermarkets and supermarkets occupied by fish and fish products has expanded about 300 percent on average compared to 2000. The number of specialized fish stores in the country has increased from 380 to 501 or by 32 percent. Retailers also reported higher sales and profits from fish sales.

The HRI sector also reported higher sales. Major restaurants and hotels expanded their fish menu and the first efforts to establish a fish restaurant chain commenced. According to a specialized survey among food service managers, they unanimously expect and increase in fish consumption of at least 10-20 percent in the next 1-2 years.

According to Noema marketing survey (2003), the following trends are observed on the fish market for the past 2 years:

- Consumers increasingly prefer to choose branded fish products compared to pre-2000 period when the consumer choice was based mainly on the fish specie and price; Such branded products are locally known processors which are often the largest importers such as "Atlantic", "Sirena", "PAL-BG", "Elekta" etc.
- Due to consumer perception of fish products as healthy products, an increasing number of fish suppliers (processors, producers, importers) are trying to select species and products emphasizing on the health characteristics. For example, higher supply of fish with lower fat content; fish salads with less salt and light vegetable oil; better supply of fish fillet, etc. Accordingly, retailers are trying to offer more and of higher variety fresh fish vs. frozen fish and fish products.
- There is an increasing demand for fish products which are ready-to-cook. Such products are cleaned fish fillet; sliced and cleaned fish; fish slices ready for baking; fish slices ready for breading/frying, etc.
- A new trend in the fish consumption is the fast increase in consumption of processed fish such as cured, salted, ready-to-cook and canned fish. It is estimated that this consumption annually is about 5,000 MT and is increasing every year. In 2002, this type of consumption has registered a 33 percent growth over 2001 (3,600 MT).
- The demand has also shifted toward more convenient packaging such as family size portions.

Trade

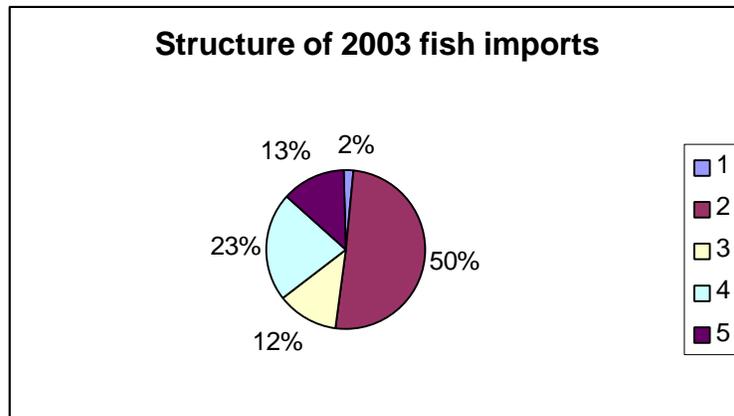
Trade in fish and fishery products is developing quickly over the past 2-3 years with a gradual growth in sales. Since 2000, fish imports have varied between 17,000 MT and 19,000 MT. Exports varied between 4,000 MT and 6,000 MT.

Imports

In 2002, imports were 17,700 MT of fish of which over 90 percent is frozen fish (15,800 MT). The major suppliers of fish were Ireland (24.3 percent in total imports), United Kingdom (22 percent), the United States (17 percent), Norway (12 percent) and Canada (6 percent).

Fresh fish imports in 2002 began to increase although at low levels. For example, these imports in 2002 were 347 MT which is about 300 percent higher compared to 2001. Imports of more expensive items such as fish fillet also increased 18 percent and reached 700 MT, mainly from Lithuania, Argentina and Norway. Canned fish is imported mainly from Indonesia, Poland and Thailand.

In 2003, fish imports continued to increase and reached 11,300 MT for the first six months. The preliminary data from 2003 annual imports are for 25,700 MT for \$23.5 million. It is estimated that this figure may go even further since the latest December import shipments are not included. The highest portion of 2003 imports is frozen fish for \$12.0 million (20,400 MT) followed by mollusk for \$5.3 million (3,000 MT); delicatessen fish for \$3.1 million (1,000 MT) and dried, salted and marinated fish for \$3.0 million (1,200 MT).



In 2003, the net revenue from sales of the top three companies importers of fish are between \$2.0 million and \$5.0 million per a company.

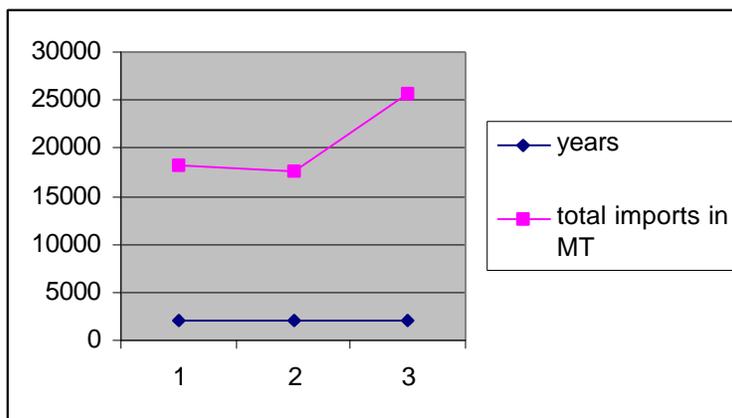
According to a survey among fish importers, the most preferred for imports fish species (in a descending order) are: mackerel; tuna fish; salmon; crabs and pike-perch.

U.S. export opportunities

The United States became a leading exporter of fish to Bulgaria in 2003 with \$3.5 million fish exports (source: Bulgarian Customs; \$3.1 million: source U.S. Customs) or 7,100 MT of frozen fish. Thus, the U.S. share in total frozen fish imports reached 35 percent in tonnage and 27 percent in value. As described above, the number one fish species imported from the U.S. is frozen mackerel. These opportunities will continue in the neat future as well as higher diversity of fish products might be in demand. Currently, there are no non-tariff restrictions limiting U.S. fish export to this market such as EU approved establishments or export certificates. A detailed list of Bulgarian fish importers is available at AgOffice Sofia per request of U.S. exporters.

Table # 2. Fish imports in 2002 and 2003

| Fish imports in Bulgaria in 2002 and 2003 in MT | | |
|---|-------------------------|---------------------------|
| HS# Description | 2002 | 2003 |
| 0301 Live fish | 7 (\$49,000) | 1 (474,000) |
| 0302 Fresh and chilled fish | 347 (\$135,000) | NA |
| Turkey | 317 | NA |
| 0303 Frozen fish | 15,784 (\$8.3 million) | 20,428 (\$11.3 million) |
| UK | 3,489 | 1,179 |
| Ireland | 3,830 | 3,211 |
| USA | 2,625 (\$1.1 million) | 7,159 (\$3.5 million) |
| Norway | 1,825 | 201 |
| Canada | 1,071 | 4,099 |
| Argentina | 554 | 919 |
| 0304 Fish fillet | 697 (\$1.0 million) | 1,012 (\$3.1 million) |
| Lithuania | 135 | NA |
| Argentina | 128 | NA |
| Norway | 108 | NA |
| 0305 Dried, salted, marinated fish | 37 (\$37,000) | 1,216 MT (\$2.92 million) |
| 0306 Crustaceous | 45 (\$216,000) | NA |
| 0307 Mollusks | 112 (\$216,000) | 2,990 MT (\$5.33 million) |
| 1604 Prepared fish foods and cans, caviar | 614 (\$1.2 million) | NA |
| 1605 Prepared and canned crustaceous and mollusca | 12 (\$39,000) | NA |
| Total fish imports | 17,655 (\$12.3 million) | 25,700 (\$23.5 million) |



Trade Regime (please, see details at www.customs.government.bg)

Table #3. Trade Regime in 2004

| Import tariffs for fish and fish products in 2004 | |
|--|-----------------|
| HS# Tariff Position/Description | Duty in percent |
| 0301 Live fish | 10% |
| 0302 Fresh and chilled fish | 10% |
| 0303 Frozen fish | 5%-10% |
| 0304 Fish fillet (fresh, chilled, frozen) | 10% |
| 0305 Dried, salted, marinated fish | 10% |
| 0306 Crustaceous | 10% |
| 0307 Mollusca | 10% |
| 1604 Prepared fish foods and cans, caviar | 25% |
| 1605 Prepared and canned crustaceous and mollusca | 25% |
| Source: 2004 Bulgarian Tariff Code | |

Trade preferences

Countries-members of EFTA export any fishery products under Chapter III and Chapter XIV at zero duty (Tariff Code Attachment 2).

The EU-member states also can export most fishery products at zero duty to Bulgaria (Tariff Code Attachment 1.4). Other products have lower seasonal duties which are at 7 percent between January 1 and February 29, and 4.0 percent between March 1 and December 31 in Chapter III; and 17 percent and 10 percent, respectively, for the same periods, under Chapter XIV (Tariff Code Attachment 1.5).

Similar is the trade regime for CEFTA countries (mainly zero duty with the exception of carp imported at 5 percent duty, Tariff Code Attachment 3.1).

Turkey can export fish products under HS#160414 and HS#1604 20 70 at 24.5 percent duty within a quota of 100 MT for each of the two tariff positions (Tariff Code Attachment 4).

Estonia can export canned fish under HS#1604 and HS#1605 at zero import duty within a quota of 67 MT (Tariff Code Attachment 7). Similar is the trade regime for Lithuania (Tariff Code Attachment 8) and for Latvia (Tariff Code Attachment 9).

Exports

In 2002, exports of fish were 5,100 MT which is a growth of 23 percent compared to 2001. This growth is a result of the lifting of the EU ban imposed on Bulgaria in 1999 due to the observation that the production conditions and laboratory equipment do not meet the EU quality and safety standards. The other reason for increased exports is higher local fish production.

In 2002, about 43 percent of total fish exports belong to mollusca, 2,200 MT, at an average export price of \$1.71/kilo. This is a 5 percent growth compared to 2001. These exports are destined for Japan (26 percent of total exports), Macedonia (20 percent), Yugoslavia (20 percent), Turkey and Greece (7-8 percent each). The average export price for Japan was \$3.09/kilo; for Korea – \$3.50/kilo, while average export prices for the Balkan countries are much lower, between \$0.55/kilo and \$0.67/kilo.

The second most exported item (about 25 percent of total exports) is frozen fish, 1,330 MT in 2002 or a 7.4 percent annual growth; and at an average export price of \$0.59/kilo. Frozen fish is exported mainly to Romania (528 MT at an average export price of \$0.31/kilo), and other Balkan countries: Yugoslavia (362 MT at \$0.23/kilo) and Bosnia and Herzegovina (207 MT at \$0.21/kilo).

Exports of processed fish (salted, cured, dried or marinated) in 2002 has doubled to reach 1,277 MT, and practically all quantity is exported to Romania at an average export price of \$3.60/kilo.

Another important export item is caviar. Due to its good quality, export prices are between \$250/kilo and \$300/kilo. The major market is the United States with 2.3 MT at an export price of \$280/kilo-\$350/MT. According to the exporters, the retail price of this caviar at the U.S. market reaches \$1,500-\$3,000/kilo. Due to environmental concerns, exports of caviar from Bulgaria is regulated by CITES quotas in order to prevent over catch of sturgeon. Bulgarian quota in 2002 was 1,720 kilos and was fully used. The quota for 2003 remained at the same level. The preliminary data show again a full use of this quota.

In 2003, fish exports reached 3,000 MT for the first six months and 5,600 MT for the year. This growth of 8 -10 percent was a result of higher production as well as due to the export opportunities to the EU.

In 2003, the net revenue of the top three exporters of fish products are estimated at about \$1.0 per a company.

Distribution and Marketing

Distribution of fish products faces infrastructure challenges related to still weak development of the cold chain on the market. Over the past 2 years, wholesale markets and retail markets significantly improved their ability to move frozen products with shorter shelf life. For example, in 2000 hypermarkets accounted for 10 percent of food (and fish) sales, while in 2003, this share is 24 percent on average, and 35 percent for urban areas. The expansion of specialized fish stores was also considerable and provided conditions for increased market supply.

All large importers distribute their products by own distribution network which includes retail and food service outlets, and catering clients. There are no specialized companies to provide only distribution service for fish products. For this reason, local fish producers and processors use large importers to distribute their product locally.

Marketing of fish and fishery products is still very weak. There are a few TV commercials, no supermarket promotions and no hotel promotions. Distributors and retailers still rely on objective consumer trends to increase their sales.

Prices

In 2002, average annual wholesale fish prices increased between 4 and 6 percent compared to 2001. In 2003, this growth continued as shown below:

Table #4. Wholesale prices in 2002-2003

| Average wholesale fish prices in leva per kilo in 2001-2003 | | | |
|--|------|------|-------|
| Fish species | 2001 | 2002 | 2003* |
| Mackerel | 2.43 | 2.74 | 2.70 |
| Sprat (Sprattus sprattus) | 0.99 | 1.03 | 1.05 |
| Carp (Cyprinus carpio) | 2.83 | 3.28 | 3.10 |
| Lucioperca Icioperca | 3.28 | 4.05 | 3.80 |
| Trout | 6.94 | 6.56 | 6.79 |
| Hypophthalmichthys molitrix | 1.41 | 2.33 | 2.10 |

Note: 2003 prices are estimated and 2001 and 2002 prices are official data; Exchange rate 2001- 2.185 Bleva for one USD; 2002- 2.077 Bleva for one USD; 2003 – 1.55 Bleva for one USD

The major reason for the increase in fish prices is higher demand and not sufficient supply.

One reason for limited supply in 2002 was the stringent GOB measures undertook to limit illegal fishing (poaching). Thus, the supply of cheap fish declined which positively affected the legal commercial production and imports.

Another reason for higher prices for certain fish species is higher demand for those fish species which are more preferred by consumers such as "white" fish species/Lucioperca Icioperca. These species are in demand by consumers who appreciate less fat, tasty fish and with less bones fish.

Mackerel price in 2002 increased 12 percent compared to 2001. Trout is the major fish specie in the more expensive fish category which is in demand throughout the year. Since it is produced both on fish farms and is caught in natural water basin, supply and prices are relatively stable.

Retail prices

Average annual retail prices have also registered a growth but were more stable than the wholesale prices. The 2002 price fluctuations depending on the fish species was between 1 percent and 17 percent. For example, carp prices in 2002 increased 15 percent due to lower production. At the same time, sprat retail prices decreased 8 percent compared to 2001 due to over supply. Another reason for lower sprat retail prices is that small size fish in Bulgaria is usually sold at lower price.

Table #5. Retail Prices in 2002-2003

| Average retail fish prices in leva per kilo in 2001-2003 | | | |
|---|------|------|------|
| Fish species | 2001 | 2002 | 2003 |
| Mackerel | 3.18 | 3.2 | 3.2 |
| Sprat (Sprattus sprattus) | 1.47 | 1.35 | 1.2 |
| Carp (Cyprinus carpio) | 3.21 | 3.69 | 3.66 |
| Lucioperca lacioperca | 3.81 | 4.06 | 3.95 |
| Trout | 7.15 | 7.33 | 7.41 |
| Hypophthalmichthys molitrix | 2.0 | 2.35 | 2.13 |
| Note: 2003 prices are estimated and 2001 and 2002 prices are official data; ; Exchange rate 2001- 2.185 Bleva for one USD; 2002- 2.077 Bleva for one USD; 2003 – 1.55 Bleva for one USD | | | |

According to Noema marketing survey, as of mid-2003, about 50-60 type of fish products are available at retail outlets on average.

The following major types of fish products are available at the main hypermarket Metro:

Table #6. "Metro" fish assortment in 2003

| Fish specie | Assortment (depending on the origin, packaging, type of processing, etc.) | Price range per in leva per a kilo |
|--|---|------------------------------------|
| Fresh and frozen products | | |
| Mackerel | 13 | 2.70-4.00 leva |
| Herring | 1 | 17.00 leva |
| Salmon | 16 | 35.00-50.00 leva |
| Trout | 7 | 7.00-12.00 leva |
| Shrimps | 8 | 18.00-55.00 leva |
| Turbot | 1 | 4.00 leva |
| Cod-fish | 2 | 10.00 leva |
| Pike-perch | 2 | 23.00 leva |
| Crabs | 5 | 10.00-13.00 leva |
| Sprat | 1 | Around 1.00 leva |
| Other fish and shell fish species (about 30 types) | 2-4 per a fish specie | 20.00-50.00 leva |
| Canned fish products | | |
| Tuna fish | 6 | 30.00-40.00 leva |
| Salmon | 4 | 30.00 leva |
| Mackerel | 6 | 1.50-2.00 leva |
| Other (5) | 1-2 | 3.00 leva |
| Source: Noema marketing survey 2003; ; Exchange rate 2003 – 1.55 Bleva for one USD | | |