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Recommendations for Ukrainian fish trading development

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Рекомендації розроблено у рамках науково-дослідних робіт по темі № 110/530-пр «Напрями формування та функціонування Спільної рибної політики Європейського Союзу та шляхи її реалізації в Україні» та програми GCP/UK/R001/NOR Продовольчої і сільськогосподарської організації ООН (ФАО) з питань ринку риби, рибної продукції та статистики рибного господарства і аквакультури в Україні. У рекомендаціях вказано, що сьогодні ринок риби та рибної продукції розвивається динамічно. Обґрунтовано, що цьому сприяють як зростання пропозиції продукції на місцевому ринку, так і поступове розширення її асортименту. Водночас вказано, що значний дефіцит вітчизняних потужностей зі зберігання, очищення й розбирання, копчення, соління, маринування, фасування й упакування рибної продукції, відсутність потужностей з приготування рибної кулінарії найбільш затребуваної кінцевим споживачем є перешкодою для розвитку ринку риби і повноцінного харчування населення України.

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Методичні рекомендації

Recommendations for Ukrainian fish trading development.

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TRADING WITH FISH AND FISHERY/AQUACULTURE PRODUCTS

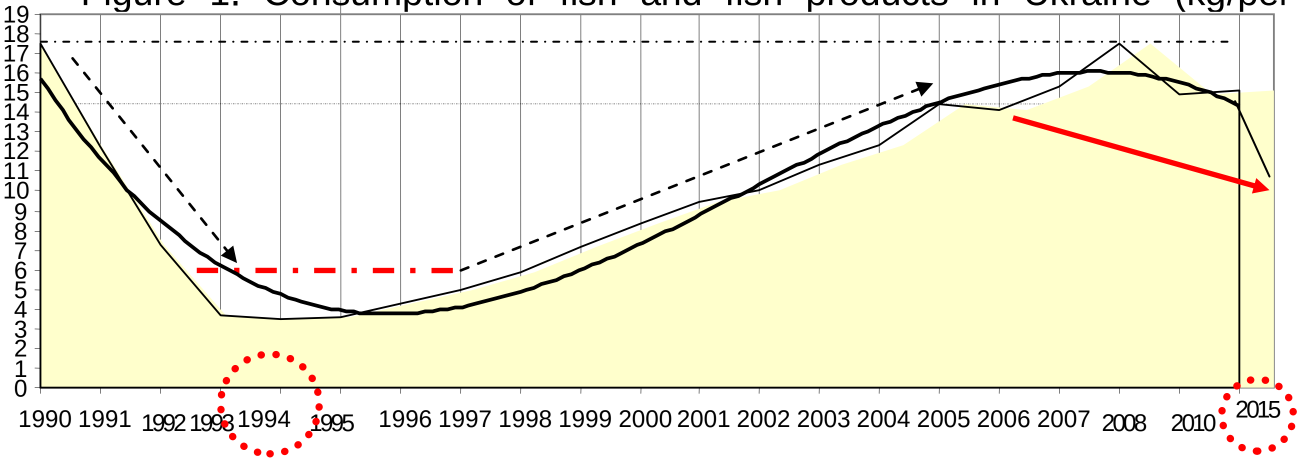
1. Fish consumption and market demand

Today fish and fish products' market developing dynamically, which is due to increased supply and choice of products. Concerned organizations organize the market of fish products with aim to harmonize supply and demand for the benefit of both producers and consumers. Even though fish is not a major product, still it is of significantly importance in nutrition of people. Wholesale and retail market of fish depends on the consumer demand, which increases due to transition from consumption of expensive meat to the cheaper healthy fish. Though the level of fish consumption in Ukraine has not reached the level of 1990 yet, it has increased significantly since 2005 compared to the period of 1992-1995. The average annual rate of fish and fish products consumption justified by the National Institute of Nutrition (NIN) under the Ministry of Health of Ukraine is 20 kg per person. The increase in consumption of fish and seafood was caused by the epizootics such as chicken and swine flu. Increasing demand for fish might also be reasoned by promotion of fish as a healthier diet. The share of fish and fish products has increased four times from 0.13 % to 0.55 % between 1995 and 2015. Consumption of fish and fish products in Ukraine accounts to nearly 17 kg per person annually.

At the same time the consumption of meat products exceeds 45 kg person per year. Consumption of dairy products is over 225 kg per person per year. Since 1990 the consumption of fish and fish products has decreased from 17.5 kg to 8.4 kg in 2000, and then increased to 14.9 kg in 2009. The lowest indicator was in 1994 amounting to 3.5 kg per person. The fish industry had to provided 922 800 tons of fish and fish products in 2009 for 46.1 million people but the indicator was only 211 200 tons, which is 4.4 times less than required. There is a recent fluctuation of consumption of fish and fish products. Since 2010 consumption of fish and fish products decreased to 14.5 kg which remained 9.9 kg per person in 2015 (Fig. 1).

kg / year

Figure 1. Consumption of fish and fish products in Ukraine (kg/per



It is explained by the fact that the purchasing power of population was very low in 2015. In order to save money the proportion of frozen fish, filleted and other fish meat, including minced; fresh and chilled fish have increased. Due to currency fluctuations and falling of population's solvency fish sales have slowed down by 50 %. Though fish products are important, their share in the nutrition and in the family budget expenses are low and demand for such products is directly influenced by market prices. Out of the different species common carp, bighead carp and grass carp have the biggest demand among the population.

The leaders among the fluvial fish are: common carp (10.6 %), bighead carp, grass carp (13.6 %) and Crucian carp (5.1 %). The increase of the consumption of freshwater fish was observed in 2014. Among these species there were: wels catfish – 75 %, zander – 36 %, common carp – 11 %, bighead carp, grass carp – 14 %, bream – 8 %, Crucian carp – 22 %. The most popular sea-fish in consumption, captured in Ukraine in 2015, was scomber – 15.5 % from the total consumption of fish; gobies – for 13.3 %, clupeonella – 8.4 %, krill – 10.1 %. These years there is a direct relation between fish consumption and the density of urban population in any region of Ukraine. Thus, the average consumption ranges from 15 to more than 17 kg/person/year in densely populated regions (Donetsk, Zaporizhzhya and Mykolaiv).

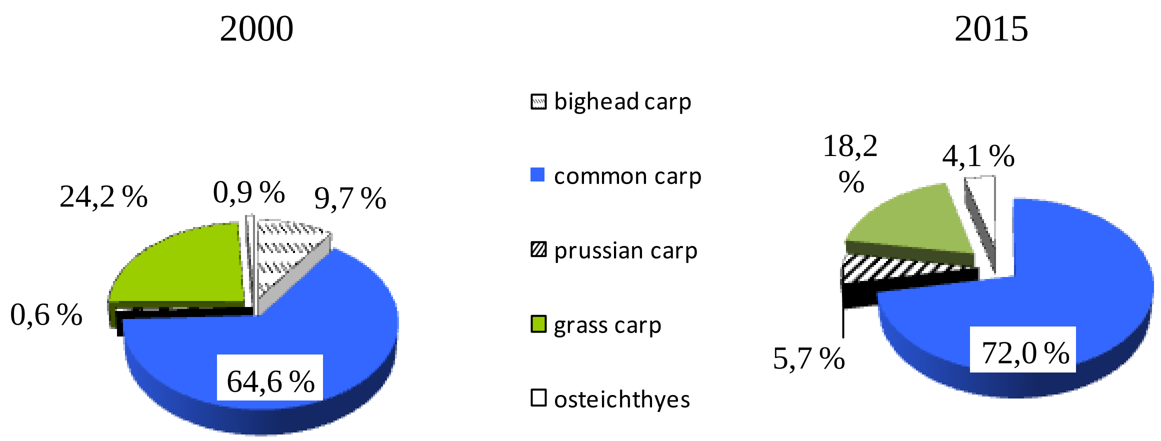


Figure 2. The species composition of freshwater fish, the most popular among the population of Ukraine (based on data from the State Statistics Service of Ukraine).

Contrastingly, in other regions of Ukraine were consumption varies between 8.8 and 11.6 kg/person/year (Zakarpattya, Ivano-Frankivsk, Rivne and Ternopil). The exception is Kiev region, where the share of urban population is 60.4 %, whereas the fish and fish products consumption is nearly 19.5 kg, where consumption of fish and fish products has reached the required level, which is due to higher incomes and better supply of fish and fish products. The nutrition of rural settlers is more varied and characterized by high-energy, compared to the urban population. They consume more fresh fish, frozen fish, chilled fish, and while in rural regions dried, salted or smoked fish prevails, which is associated with traditions. The consumption of canned processed fish products is higher in the cities than in rural areas. The share of sea fish is more for urban (28 %) than for rural population (15 %).

The majority of consumers prefer; fresh fish (60 %), frozen fish (13 %), smoked fish (12 %), salted fish (8 %), canned fish and fish preserves (3 %), fish jerky (2 %). Frozen fish are consumed by 19 % of the population, while smoked fish by 18 %, salted fish by 16 %, canned fish by 8 %, fish jerky by

7 %, fish preserves by 4 %. The difference in consumption between the population living in the cities and villages regarding frozen and smoked fish is 23 – 11 % and 24 – 15 % respectively. The difference for other types of fish products is only 1 – 2 %. Fish and seafood are often bought in specialized stores – 30 %; at the market – 29 % (in particular it's applies to fluvial fish); at the supermarkets – 15 %; retail sales – 6 %; wholesale – 4 %; in pop-up markets – 3 %. Nearly 13 % of population prefers the self-caught fluvial fish. To determine the frequency of consumption of different types of fish and seafood the following main types of fish have been selected: fresh fish, frozen fish, smoked fish, salted fish, jerky fish, canned fish, fish preserves, frozen seafood, seafood, crab sticks, luminaria. Among people who prefer fresh fish, 58 % consume it several times a month; 18 % – several times a week, 14 % – several times a year, 6 % – on holidays and 4 % – every day.

Frozen fish is consumed several times a month by 54 % of respondents, 30 % – several times a year, 18 % – on holidays, 15% – several times a week, 1 % – every day. Smoked fish is bought a couple of times in a month by 44 % of respondents, 39 % – several times a year, 29 % – on holidays, 19% several times a week and 2 % – every day. Salted fish is eaten daily by 4 % of consumers; several times a week – 18 %, several times a month – 46 %, several times a year – 33 %; on holidays – 9 %.

Frequency of fish jerky, canned fish, fish preserves and seafood consumption is almost the same within each product group: daily consume 1–4 % of the population, several times a week – 13–14 %, several times a month – 36–40 % several times a year – 44–47 %, on holidays – 11–19 %.

Percentage of consumers who buy preserves and seafood on holidays is the highest among these products – amounts to 18 % and 19 % respectively, since the preserves do not require additional efforts from consumers, they are very convenient as a festive meal and as fish snacks often bought with beer.

Frozen seafood, which includes crustaceans and frozen premade fish products, is daily consumed by 4 % of the population, several times a week – 18 %, several times a month – 62 %, several times a year – 16 %, on holidays – 5 %. A peculiarity of this product group is due to the fact that the half-finished fish products are the supplement for daily family menu; frozen crustaceans are often bought for beer. Crab sticks is a product that has appeared on the Ukrainian market more than 10 years ago and has gained the wide popularity among consumers as a supplement for a festive table and as a product that has replaced fish and seafood in the nutrition of consumers. It explains the high share of customers which buy crab sticks on holidays – 31 %. Crab sticks are daily consumed by 3% of the population, several times a week – 22 % several times a month – 30 %, several times a year – 45 %. Laminaria is daily consumed by 6 % of consumers, several times a week – 21 %, several times a month – 50 %, several times a year – 23 % on holidays – 47 %.

Ukrainian regions leading fish consumption are: Odessa region - 18,6 kg per person a year and Cherkasy region – 19,2 kg per person a year. The reason of leadership of the Cherkasy region is based on its location on the Kremenchuk storage reservoir, at the Dnipro River, the Ross River and the Sula River. Analysis of the statistics data shows that the consumption of animal products (meat and meat products) in Zhytomyr, Vinnytsya, Dnepropetrovsk, Kiev, Zaporizhzhya, Poltava, Kherson, Sumy, Chernihiv regions is two times more than that of fish products. In Volyn, Donetsk, Zakarpattia, Kirovohrad, Lviv, Luhansk, Ternopil, Kharkiv regions it exceeds the consumption of fish products three times more. Therefore, one should pay attention to the factors affecting the level of consumption of fish and fish products in terms of administrative units of Ukraine. The average highest monthly level of fish consumption per person statistics during the period from 1999-2015 years after processing official data is observed in Vinnytsia region (from 1,3 kg to 2,5 kg), Odessa region (from 1,7 kg to 2,6 kg), Kherson region (from 1,6 kg to 2,4 kg) regions and the lowest level of fish consumption – Volyn region (from 0,9 kg to 1,9 kg), Ternopil region (from 0,3 kg to 1,6 kg) Lviv region (from 0,7 kg to 1,7 kg).

There are 2 regions with the highest and the lowest fish consumption that are selected for analysis – Vinnytsya region (the highest fish consumption) and Lviv region (the lowest fish consumption). A unique situation have been discovered when Lviv region spent more expenses on food than Vinnytsya region, but consumption of fish were less (fig. 3, fig. 4).

The reason is the availability of the water resources and regional peculiarities of the water bodies' locations. There are 4849 ponds with a total water surface area of 24,1 ths. hectares and of capacity about 248,0 million m³ in Vinnytsya region; in Lviv region – 3055 ponds with a total area of water surface of 9,1 ths. hectares and capacity about 115,2 million m³, which is less than the Vinnytsya region with its 1794 ponds, 15,0 ths. hectares of water surface and 132,8 million m³ of capacity.

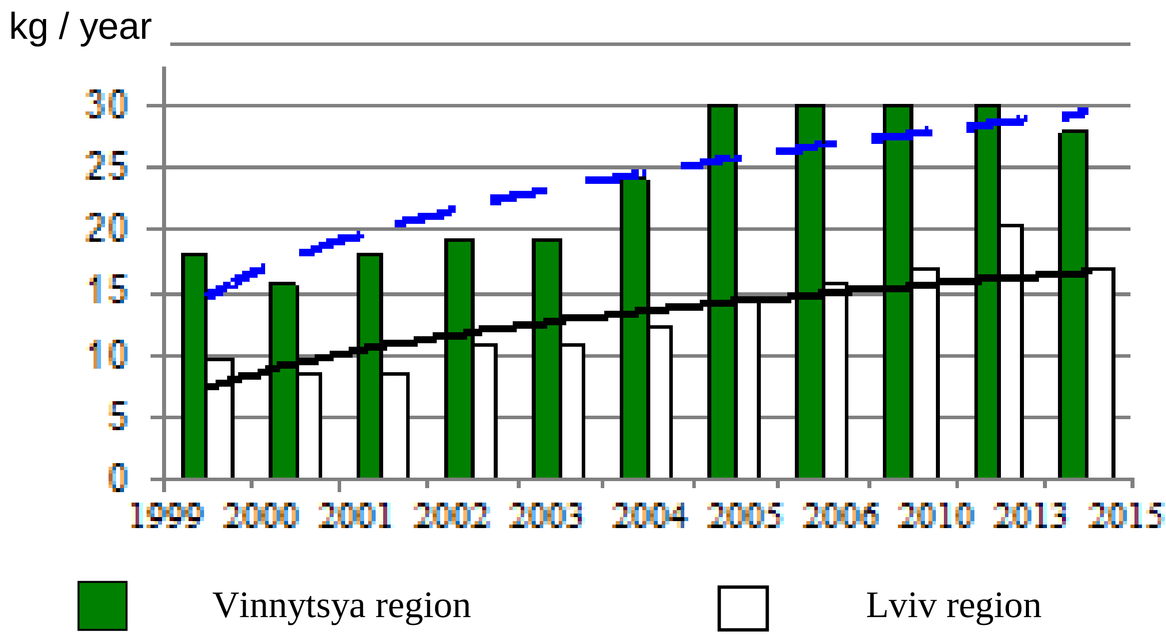


Figure 3. Dynamics of fish consumption in Vinnytsya region (the highest fish consumption) and Lviv region (the lowest fish consumption), 2015.

The water reservoirs have the same situation in 2015. There are 52 reservoirs with water surface area of 9.6 ths. hectares in Vinnitsya region, and there are 20 reservoirs with water surface area of 3.2 ths. hectares in Lviv region, which is 22 reservoirs and 6.4 ths. hectares of water surface area less. At the same time, the capacity of reservoirs is 293.0 million m³, including useful – 136.0 million m³ in Vinnytsya region, and 67.1 million m³ and 56.7 million m³ in Lviv region respectively. The prices of fish and fish products play also an important part in regionally changing consumption. Prices increased by 52.6 % in rural and 55.5 % in urban markets during 2015 (State Statistics Service of Ukraine 2016). The increase of prices was especially considerable at sea products (186 %), canned fish in oil (176.7 %) and clupea (152.3 %).

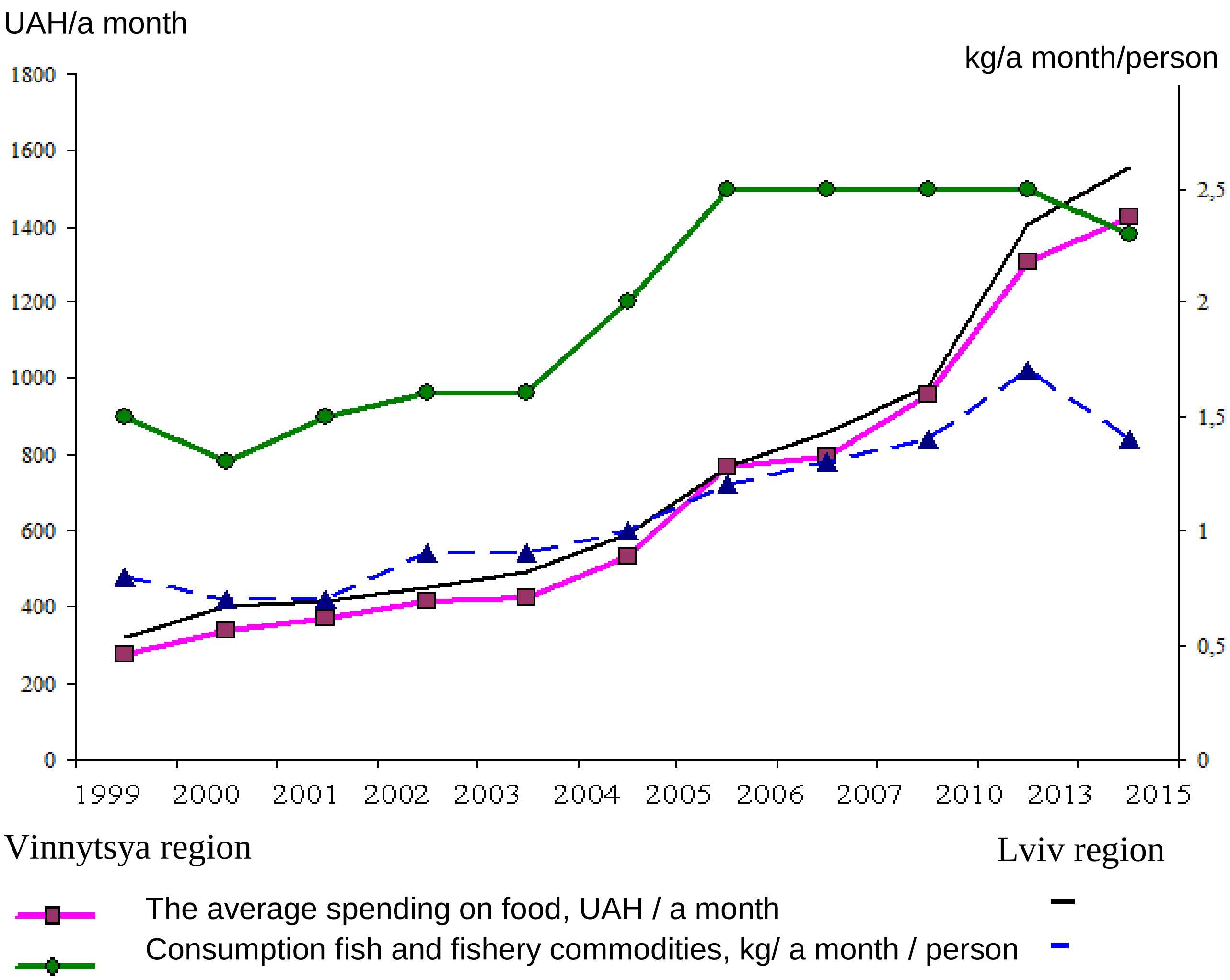


Figure 4. Dynamics of fish and fish products consumption per person in some regions of Ukraine, 1999-2015.

In general, the increase of prices happened with sea products (186.0 %), canned fish in oil (176.7 %) and clupea (152.3 %). According to the local territorial departments of the State Agency of Fisheries of Ukraine an average price for fish and fish products in urban markets has increased by 55.5 %.

The domestic fresh fish is the only product of mass consumption now. At the same time a significant lack of national capacities for storage, primary processing (cleaning, gutting, cutting/fileting) and secondary processing (smoking, salting, marinating) and packaging of fish products as well as the lack of proper facilities for the cooked fish, which is the most indemand by the final consumer, are most obvious oblastacles of the development of fish markets in Ukraine.

2. Distribution and marketing of fish and fishery/aquaculture products

Currently, there is no mechanism for proper distribution of fish and fish products on Ukrainian domestic markets. Functioning of fish markets has been based on government funding. When budget reduced government tried to drastically reorient a mechanism to self-regulating. The complexity of domestic market of fish and fishery products is presented in Figure 5.

Today consumers get fish and fish products mostly through middlemen. This has a negative effect on the quality of fish and fish products, because of the lack of appropriate conditions for fish storage. Hence in the course of resales the quality of fish and fish products gradually decay.

The current fish market is characterized by:

- increased imbalance between demand and supply of fish products;
- misbalance between the products quality and consumers' demands;
- accelerated growth of retail prices for fish and fish products of lowering qualities.

Ukrainian market of fish and fish products depends on the next factors:

- stability of the national currency;
- government policy on attitude to importers and exporters;

- inflation rates;
- increase of the minimum wage.

There are two versions of presence at market of the Ukrainian companies: a) suppliers bring the fish directly to the store themselves. It is a good solution for cities, but it is not suitable for smaller towns and villages. Middlemen do not want to go for small orders; b) individual purchases at wholesale depots. Frozen fish come in boxes, so it is not difficult to take it and store.

There are several wholesale markets of fish and fish products in Ukraine, such as «Stolychnyi» in Kyiv, «Shuvar» in Lviv, and «Hospodar» in Donetsk. For example, sector «Fish and Meat» it «Stolychnyi» market in Kyiv includes 6 pools for live fish; freezers capacity of 1224 m^3, the number of trading places – 108 m^2 – 8.72 m^2 – 18.54 m^2 – 2.36 m^2 – 8. Fish producers have an opportunity to purchase a block of bonds at the «Fish and Meat» sector of a market which is 10 bonds to 1 m^2 area (10 000 UAN/m^2).

Bonds give their holders the right for a long-term usage of the specified commercial space according to the lease – up to 20 years with an option of extension; obtain incomes from bonds in the form of preferential rental rates (70 UAN/m^2 including VAT) during the first five years at the market; disposal of securities at own opinion as assets; obtain a bank loan secured by bonds and market collateral; limiting the growth of lease due to an official inflation rate.

Fisheries enterprises that are working in aquaculture and do not have bonds are able to rent a space for up to one year, followed by filling of vacant space based on competition i.e. bidding. Rent can be reviewed after the expiry of the lease in this case. There is a small number of specialized shops for fish and fish products. The research of assortment of fish products on the example of supermarkets «Dary moria» and «NOVUS» has revealed the following: the dominant fish species are marine species and seafood. Among the kitchen ready products only marine species are represented. The level of dependence of the food market from import of fish and fish products is rapidly increasing. Ukraine has established a food market for foreign producers. The market of aquaculture production in our country has some structure, its own characteristics, scheme of trade and trade specifics (fig. 5). Fish production, including canned fish, was carried out by more than 150 companies in 2015 in Ukraine. The total assortment is around 3 thousand items. According to the statistics, 59.3 ths. tons of fish products, of which 55 % are canned fish, were produced in 2015 mainly from imported frozen fish or filleted fish and other fish meat (including minced).

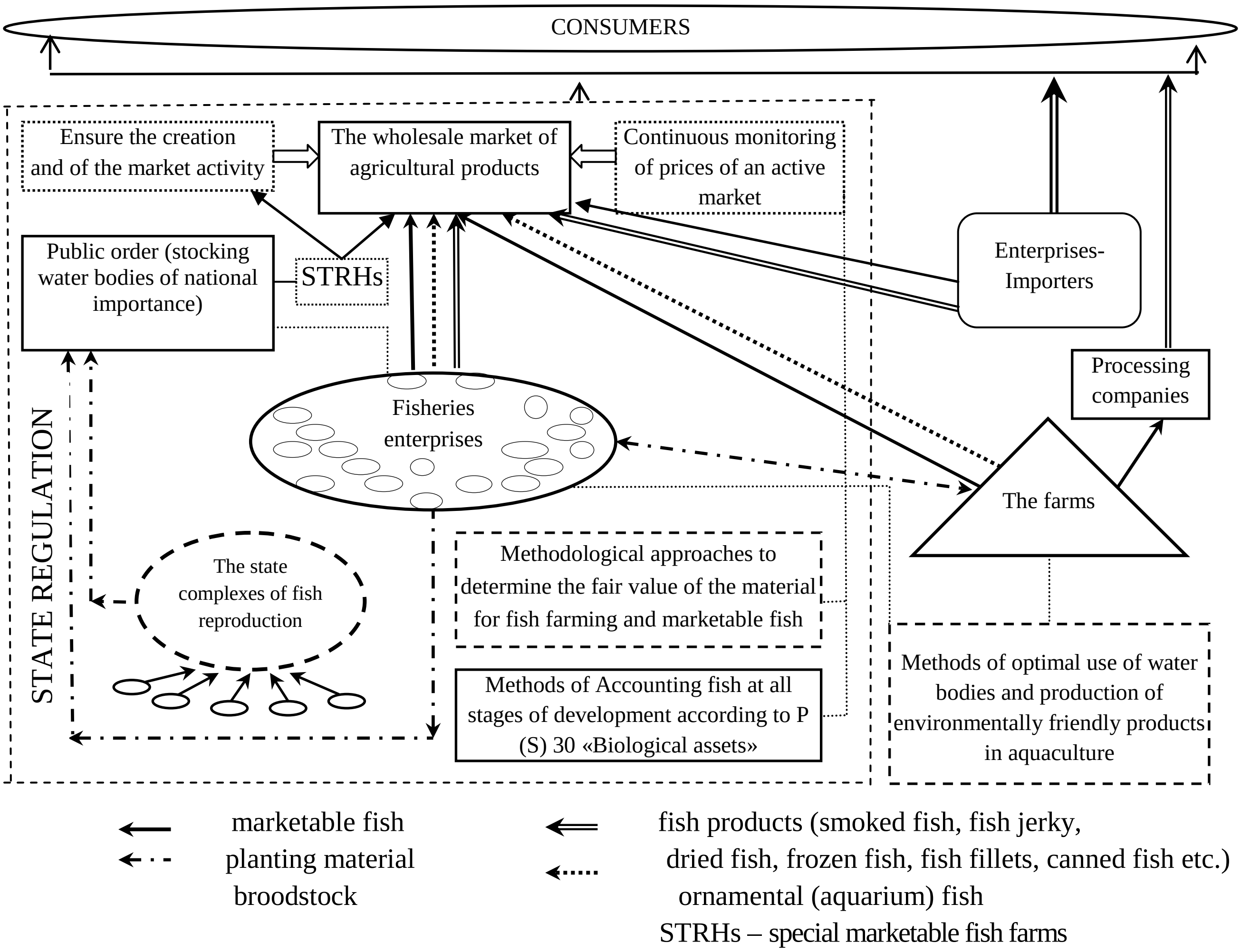


Figure 5. Scheme of aquaculture products market regulation.

The amount of fish products amounted to 35.9 ths. tons in 2014, showed a decline in production of fish products by 22 %. Production from Ukrainian fish mainly consists of the dried fish, fish jerky, smoked fish (marine fish: gobies, sprat, anchovy, sprattus; inland fish: bream, rutilus, Scardinius).

Production of fish products in Ukraine in 2015 compared to 2013 has decreased almost 60 %. It's connect with an annexation of the Crimea, where the large fish processing enterprises were located such as LLC «Sevastopolkyy», LLC «Noviy», LLC «Proliv», LLC «Vostok», JSC «Trading House «Favorit». And the main power of the production of fish products were locates at the Crimea historically. The decrease in fish products production was affected by the Russian import ban on canned fish on 29th of July, 2014, which accounted for 80 % (28.3 ths. tons) of total Ukrainian exports of prepared or canned fish and fish products in 2013.

Ukraine exported only 3.2 ths. tons of prepared or tinned fish in 2015 while this indicator was almost 35 ths. tons in 2013. Currently Ukrainian producers are engaged in capacity building in the mainland part of Ukraine and the progressive reorientation on the markets of the European Union, Asia and other countries.

3. Export and import of fish and fishery/aquaculture products

3.1. Import

The level of dependence of food market from import of fish and fish products is rapidly increasing. By today Ukraine has established a food market for foreign producers. It is because the supply of fish to the domestic market from own production and catch is 20 % while the import is 80 %.

Consequently the domestic market of fish and fish products is dependent on imports. By 2015 annual imports of fish and seafood to Ukrainian market showed a tendency for growth, in particular, regarding fresh fish, chilled fish, frozen fish and some of its kinds in processed form – excluding filleted and fish meat, prepared or tinned fish; black caviar and its substitutes that are produced from other fish eggs. The decrease observed in certain product subgroups – live fish, dried fish, smoked fish, crustaceans. Because of the failing purchasing power of Ukrainians a significant decrease of fish and fish products imports can be observed in 2015 (fig. 6).

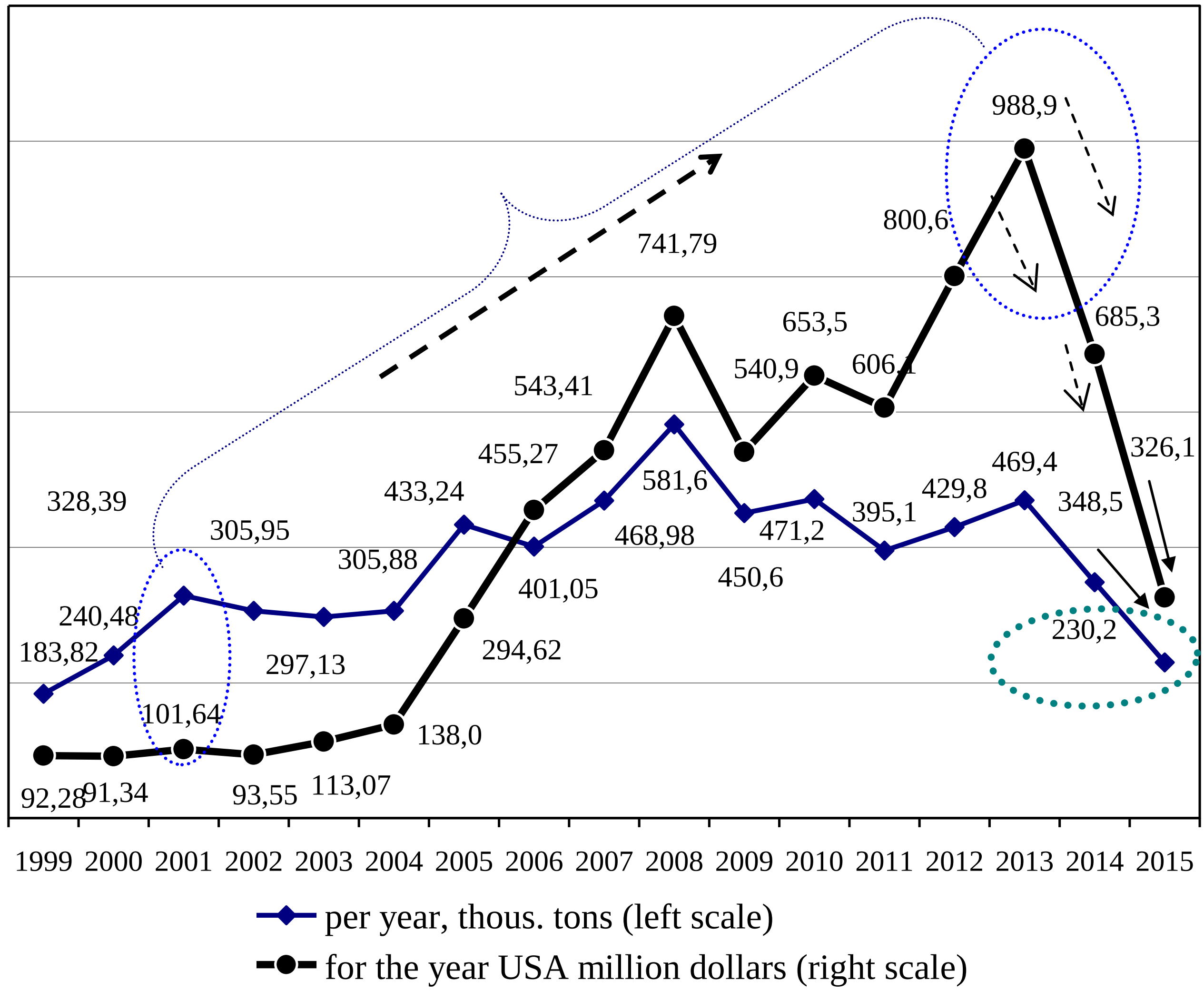


Figure 6. Dynamics of fish and fish products import in Ukraine.

In 2015 230.2 ths. tons of fish, fish products and other aquatic invertebrates (326.2 million USD), was imported. It is 35 % less than in 2014 and 50 % less than in 2013. Additionally the prices of imported fish products increased: sardinella and sardine (186 %), pink salmon (178 %) clupea (170 %). Prices for domestic fish (common carp, carassius, Far Eastern carps, bream, so-iuy mullet) have grown by 40 % – 50 %. The main reason for this increase is the economic situation and devaluation of Ukrainian currency.

The following imported frozen fish is a traditional product for the population of Ukraine: clupea, merluccius, scomber, sardine, sprat, sprattus.

In 2015 181.5 ths. tons of frozen fish, fish fillets were imported to Ukraine, which is 85 % of the total imports of fish and other aquatic invertebrates and finished products. Also caviar and its substitutes import amounted to 15.5 ths. tons of worth 0,2 billion of USA dollars; the import of fish, fresh or chilled, except for the filleted and other fish meat – 10.7 ths. tons of worth about 0.5 billion of USA dollars, fish fillets and other fish meat (including minced), fresh, chilled or frozen 13.1 ths. tons of worth 0.3 billion of USA dollars were imported in 2015.

The frozen fish was the most imported product in 2013 – 329,8 ths. tons, fish fillets and other fish meat (including minced), fresh, chilled or frozen – 48,6 ths. tons, canned fish, including caviar and its substitutes produced from caviar of other fish – 40,4 ths. tons, and chilled fish, fresh fish – 23.3 ths. tons worth nearly 0,9 billion dollars USA. That was 67.6 % more than in 2011.

The structure of commodity circulation in fish and seafood imports to Ukraine in 2013 was dominated by frozen fish (58.9 %), chilled fish, fresh fish (15.6 %) and fish fillets and other fish meat (including minced), fresh, chilled or frozen (10.4 %), prepared or tinned fish, caviar and its substitutes that are produced from caviar of other fish (9.7 %). These segments together held 94.6 % of the whole fish market (fig. 7).

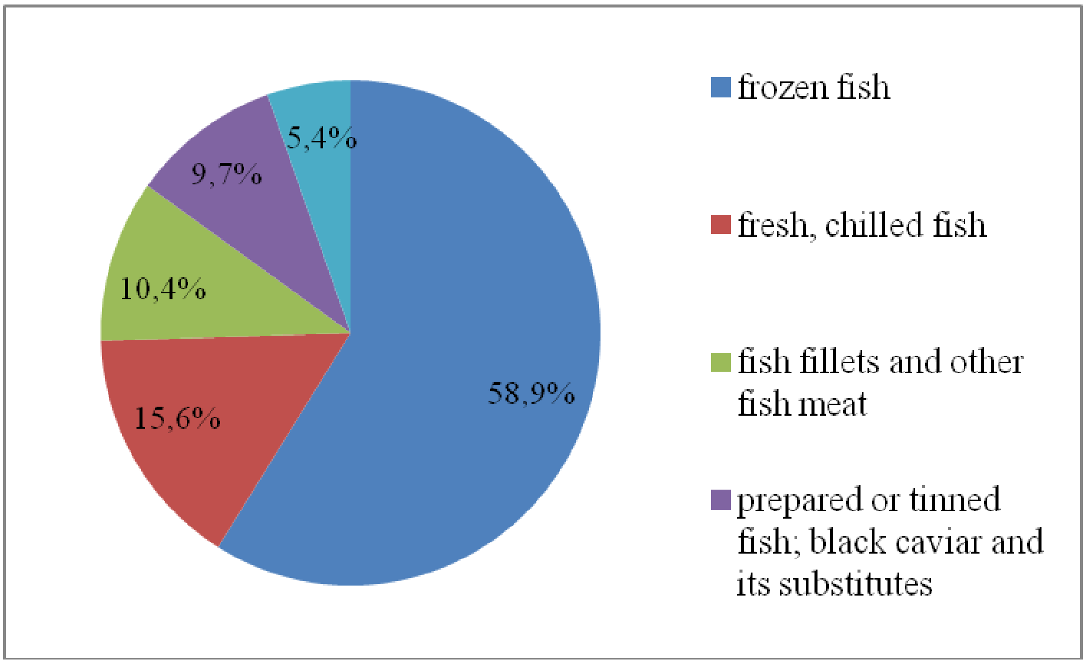


Figure 7. The structure of the commodity circulation in imports of fish and seafood to Ukraine in 2013 by net weight (According to data of The State Statistics Service of Ukraine).

The structure of the commodity circulation in fish and seafood imports to Ukraine in 2015 was dominated by frozen fish (86.3 %), chilled fish, fresh fish (0.5 %) fish fillets and other fish meat (including minced), fresh, chilled or frozen (6.2 %), prepared or tinned fish, caviar and its substitutes produced from caviar of other fish (6.3 %). These segments together held 99.3 % of total fish market (fig. 8).

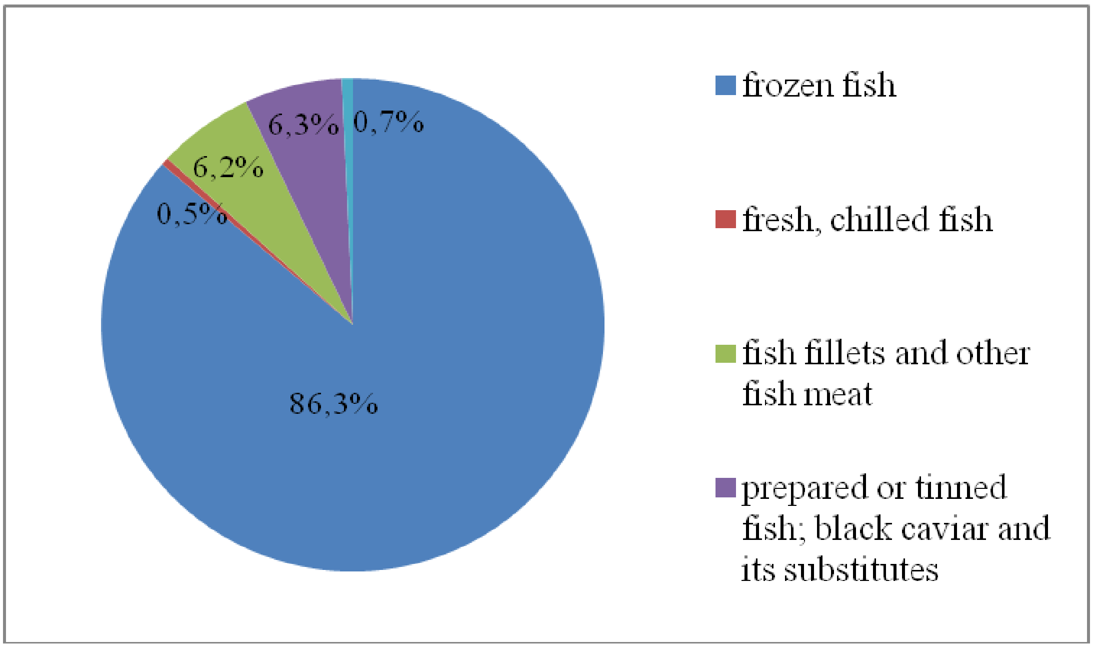


Figure 8. The structure of the commodity circulation in imports of fish and seafood to Ukraine in 2015 by net weight (According to data of The State Statistics Service of Ukraine).

In the last years frozen fish has increasingly dominated the import (see Figure 7 and 8), but in absolute terms import of frozen fish has reduced by 48.64 % in 2015. Imports of some fish species, by contrast, have grown especially of sprat, but import of clupea, scomber, and capelin has also increased. Though Ukraine does not import pike perch still 82 % of consumed fish in Ukraine was imported in 2014. More than 90 % of fish imported in 2015 are accounted for fish, which Ukraine does not have access to and which is extracted from waters of exclusively maritime economic zones of other states.

Ukraine does not have the resource base of clupea, scomber, halibut, Atlantic salmon and many other types of fish which the buyers are looking for.

Fish and seafood have been imported from more than 15 countries in 2013 and from more than 28 countries in 2015. Main importers are Norway (28.5 % of its value), that supplies frozen fish, fresh fish and chilled fish, Iceland (11.3 % of the total cost) with frozen fish, fish fillets and other fish meat (including minced). Imported fresh and chilled fish is by the most part from Norway (88.8 %), frozen fish – from Norway (22 %), USA (16.2 %) and Iceland (16.2 %) according to sub-segments of fish commodities.

Table 1. Dynamics of imports of the main marketable groups of fish commodities in Ukraine at 2011-2015

(According to data of The State Statistics Service of Ukraine)

Marketable groups	2011		2012		2013		2014		2015		2015/2014, %	
	ths. tons	1000 USD	ths. tons	1000 USD	ths. tons	1000 USD	ths. tons	1000 USD	ths. tons	1000 USD		
Fish, crustacean, mollusks and other aquatic invertebrates	346,8	505,4	382,7	687,6	415,3	863,3	307,2	593,8	210,4	289,8	68,5	48,8
Fish, fresh or chilled, excluding filleted and other fish meat	14,1	76,6	25,7	134,5	23,2	149,1	14,4	92,5	10,6	53,2	73,8	57,5
Fish, frozen, excluding filleted and other fish meat	273,2	313,3	302,6	430,1	329,8	562,2	244,8	383,4	181,4	196,9	74,1	51,4
Fish fillets and other fish meat (including minced), fresh, chilled or frozen	44,1	67,4	42,5	77,6	48,5	99,4	37,2	78,3	13,1	25,7	35,1	32,8
Prepared or tinned fish; black caviar and its substitutes	38,2	81,3	35,2	87,4	40,3	91,8	31,3	68,2	15,5	26,6	49,5	39,1
Total:	395,1	606,1	429,8	800,6	469,4	988,9	348,5	685,3	230,2	326,1	66,1	47,6

93 % of Norwegian exports to Ukraine consist of fish and seafood, especially clupea, scomber. There’re, salmonidae are coming from Russia.

The other part of the imported sprat is proportionally distributed between Argentina, the Baltic countries, Spain, Canada, Russia, Vietnam and other countries. The delicacy types of fish are supplied by France, Italy and China. The major producers that are supplying fish and seafood to Ukraine are from:

- Norway (Marine Harvest AS Ice Seafood AS, Hallvard Leroy, Norway Royal Salmon, Nergard AS, Norway Pelagic AS, Egersund Fisk Group, CA Mordal Consulting);
- Scotland (Denholm Seafoods Ltd), Holland (Marine Foods BV);
- Iceland (Iceland Pelagic, Iceland Seafood ehf), USA (Pacific Seafood);
- Canada (Ocean Choice International Ltd);
- Russia (Flayfish, Rosrybtorh), Belarus (Santa Bremor);
- Lithuania (Benko Servisas).

Main importers at 2015 were the European countries – 162.8 ths. tons (70.7 % of the total imported fish); America – 32.8 ths. tons (14.3 % of the total imported fish); Asia – 11.8 ths. tons (5.1 % of the total imported fish); CIS – 9.1 ths tons (4.0 % of the total imported fish); Africa – 8.4 ths. tons (3.7 % of the total imported fish); Australia and Oceania – 3.3 ths. tons (1.5 % of the total imported fish) (fig. 9).

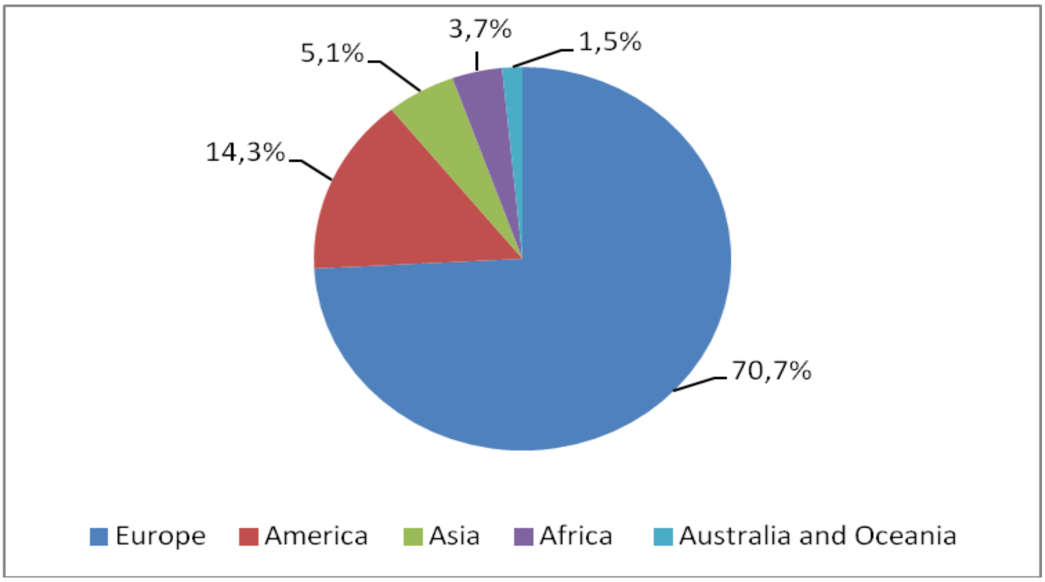


Figure 9. Import structure by the main fish importers in Ukraine at 2015. (According to the data of the State Statistics Service of Ukraine)

The amount of imported salmon to Ukraine in 2014 comes down to 976 tons, which is 48 % less than in 2013. In 2015 a total of 3 624 800 tons of rainbow trout were imported to Ukraine with details presented in Table 2. In 2015 rainbow trout from Norway was imported in the amount of 991.2 tons, 3374 tons – from Denmark, 132.1 tons – from Chile, 73.7 tons – from Turkey.

Table 2. Trout import in 2015

	Total		Fresh or chilled		Frozen		Fish fillets and other fish meat (including minced), fresh, chilled or frozen		Dried, salted or in brine	
	tons	1000 USD	tons	1000 USD	tons	1000 USD	tons	1000 USD	tons	1000 USD
Total	3624,8	15 206,4	3 176,1	14083,7	436,8	1 031,2	5,4	18,7	6,5	72,8
Belarus	5,5	63,8	-	-	-	-	-	-	5,5	63,8
United Kingdom	46,4	157,8	-	-	42,5	143,9	4,0	13,9	-	-
Denmark	337,4	1 096,5	300,7	956,8	36,7	139,7	-	-	-	-
Estonia	8,1	6,0	-	-	8,1	6,0	-	-	-	-
Italy	30,4	149,4	30,4	149,4			-	-	-	-
Norway	2 991,2	13 118,1	2 771,3	12720,8	217,4	383,2	1,5	5,2	1,0	8,9
Finland	0,2	0,1	-	-	0,2	0,1	-	-	-	-
Turkey	73,7	256,7	73,7	256,7	-	-	-	-	-	-
Chile	132,1	358,3	-	-	132,1	358,3	-	-	-	-

Ukraine bought the filleted fish and other fish meat (including minced) for 25.8 million USD in 2015. It is 67.2 % less than in 2014. The top three importers with almost equal percentage were Vietnam (6.6 million USD 25.5 %), Norway (6.25 million USD 24.2 %) and Iceland (5.37 million USD 20.8 %). Ukraine has introduced a 10 per cent import duty in February, 2015; hence fish and fish products were included to the list of additional taxable goods. The introduction of an additional fee has not justified itself, since the budget revenues have declined. Ukrainian fish market has suffered the most. Even despite the fact that importers have changed approaches and started to import cheaper fish products instead of more expensive (the average price of imported fish for the half-year of 2014 is 2 USD/kg, but in 2015 it is was 1.3 USD/kg), the fish imports have still reduced by 40 % in 2015, even more than in 2014.

The present situation of imports fish and fish products is explained by the lack of specialized fishing fleet and the processing industry, as well as by quotas in international waters and increased IUU in general and poaching particular. Besides, the cost price of Ukrainian fish import is higher than that of imported fish, which is why Ukrainian fish products are losing.

3.2. Export

In 2015 a total of 8 600 tons of fish, crustaceans, fish products and other aquatic invertebrates were exported from Ukraine, in a total value 17.7 million USD. This is 31 000 tones less compared to 2014 year when it was 39 600 tons and 42 800 tons less compared to 2013 when the export was 51 400 tons (Figure 10).

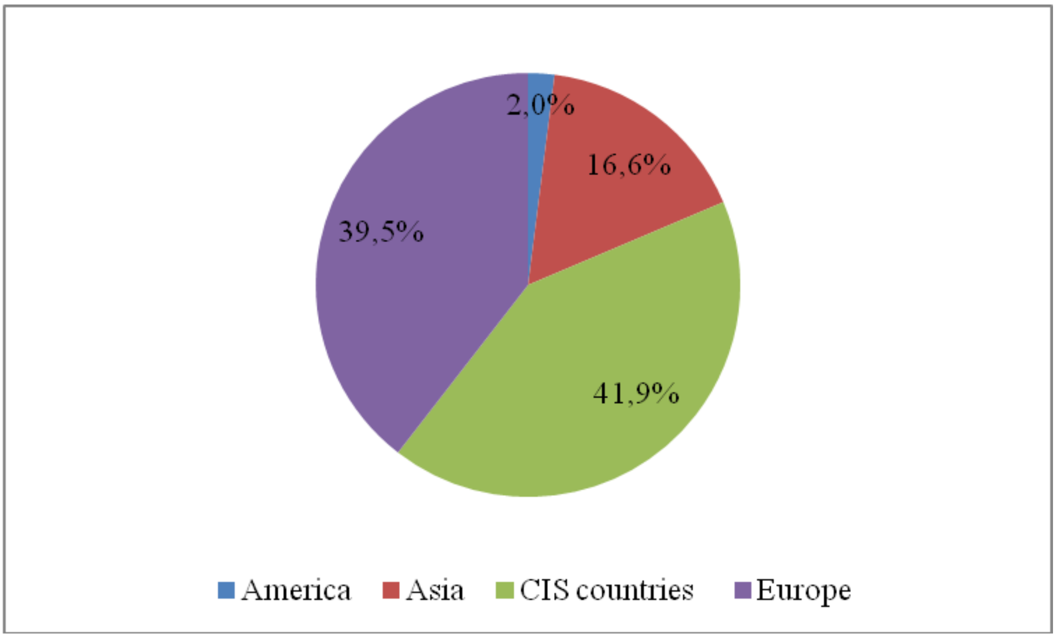


Figure 10. Structure of Ukrainian fish exports to the other countries in 2015. (According to the data of the State Statistics Service of Ukraine)

The amount of exports of filleted fish and other fish meat (including minced) was 1.8 million USD in 2015. The largest importer of Ukrainian fish meat is Germany (4.7 million USD).The export of frozen fish was 247 200 USD; mainly to Latvia (57 tons), Turkmenistan (18 tons), Moldova (49 tons). It was 22.6 % less than in 2014. Ukraine mainly exports fresh fish, chilled fish, canned fish to Russia and Kazakhstan (directly from fishing areas). The amount of exports in all the groups has declined in 2015 (see Table 3).

Table 3. Dynamics of export of the main marketable groups of fish commodities in Ukraine in 2011-2015

(According to the data of the State Statistics Service of Ukraine)

Marketable groups	2011		2012		2013		2014		2015		2015/2014, 1000 USD	
	ths. tons	1000 USD	ths. tons	1000 USD	ths. tons	1000 USD	1000 USD	ths. tons	1000 USD	ths. tons		
Fish, crustacean, molluscs and other aquatic invertebrates	18,9	19,6	18,2	18,7	16,4	20,8	21,9	27,4	5,3	12,9	24,6	47,4
Fish, fresh or chilled, excluding filleted and other fish meat	18,1	15,7	15,4	13,3	13,6	11,7	20,2	17,2	2,6	2,2	13,1	12,9
Fish, frozen, excluding filleted and other fish meat	0,2	0,1	2,1	1,1	1,6	1,1	0,2	0,3	0,2	0,2	88,2	78,1
Fish fillets and other fish meat (including minced), fresh, chilled or frozen	0,3	2,9	0,5	3,7	0,7	6,6	1,1	8,7	1,8	8,1	156,5	92,2
Prepared or tinned fish; black caviar and its substitutes	29,9	39,5	37,3	46,2	34,9	42,9	17,6	20,3	3,2	4,5	18,6	22,5
Total	49,1	61,5	55,7	66,1	51,4	65,1	39,6	48,6	8,6	17,7	21,9	36,6

Export of fresh fish, chilled fish amounted of 2 400 tons at the cost of 2062 900 USD was made by «SRDK» directly from the area of fisheries (Atlantic region, near to Guinea-Bissau).

Ukraine exports only 98 tons of frozen fish to Europe excluding filleted fish and other fish meat at a price of 92 000 USD.

In 2015 the production of trout was 247 tons out of which the export of trout was only 5.5 tons in a value of 62 900 USD (See Table. 4).

Table 4 Trout exports in 2015

	Total		Fresh or chilled		Frozen		Dried, salted or in brine	
	tons	1000 USD	tons	1000 USD	tons	1000 USD	tons	1000 USD
Total	5,8	62,9	0,032	0,400	0,120	0,600	5,694	61,900
Azerbaijan	0,0	0,3					0,012	0,300
Armenia	0,2	2,4					0,180	2,400
Georgia	0,4	7,4					0,424	7,400
Turkey	0,0	0,1	0,011	0,100				
Japan	0,0	0,3	0,021	0,300				
USA	4,1	34,8					4,115	34,800
Panama	0,1	0,6			0,120	0,600		

The volume of exports of freshwater perch fillets (fresh, chilled or frozen) was as presented in Table 5. All exported perch, a total 392 500 tons were supplied to Europe.

Table 5 Export of pike perch fillet, tons

Years	2010	2011	2012	2013	2014	2015
Exports of freshwater perch fillets (fresh, chilled or frozen)	182,5	216,3	477,7	752,6	1127,3	1392,5

Ukraine exports of perch to:

- Germany 90 % a total of 996.4 tons worth 4 126 100 USD
- Denmark 151,8 tons worth 624 300 USD

- Lithuania – 110.6 tons worth 488 500 USD
- France – 90.8 tons worth 561 500 USD
- Poland – 24.0 tons worth 159 60 USD
- The Netherlands – 18,9 tons worth 58 100 USD

Falling of effective demand due to devaluation of national currency has influenced the reduction of import segment. It is time for import phase-out - saturation of the market by fresh, affordable Ukrainian fish products (fig. 11).

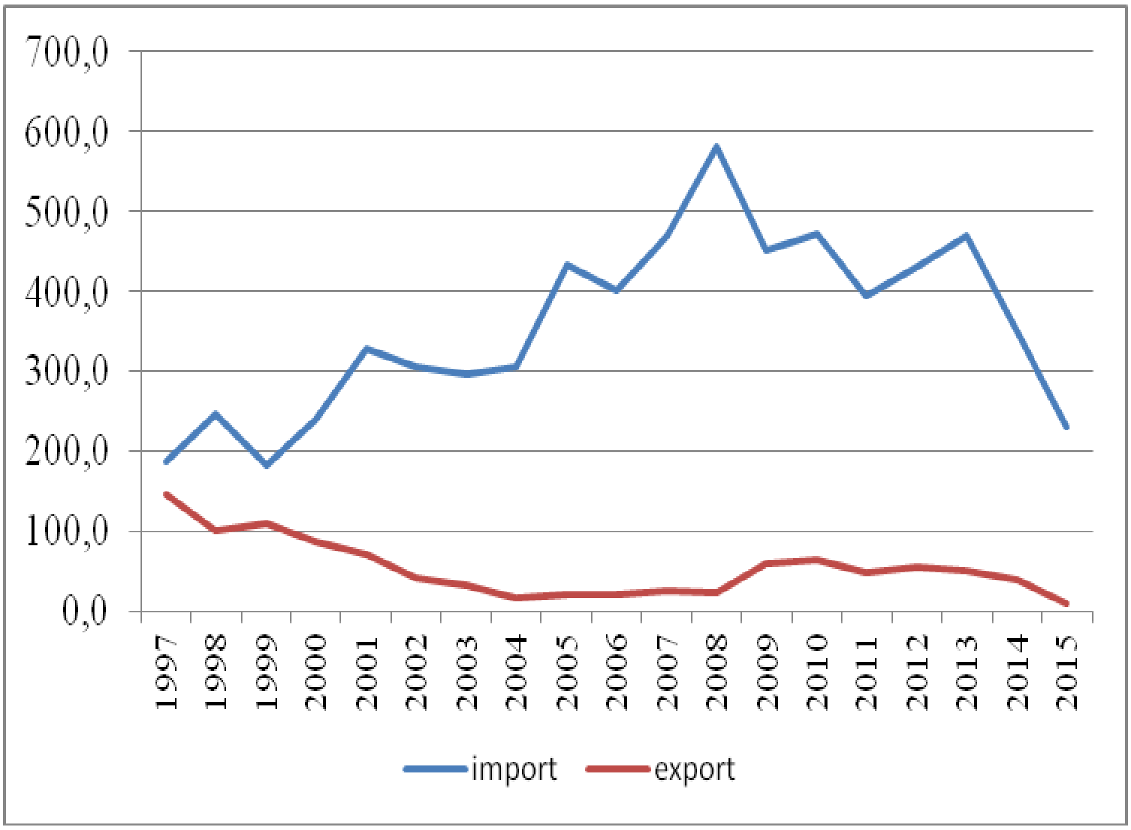


Figure 11. Dynamics of export and import.

(According to the data of the State Statistics Service of Ukraine)

The price on fish and fish products are shown in table 6.

Ukraine has conditions to grow European plaice, rainbow trout, Coregonus, channel catfish, perch, starry sturgeon, and American paddlefish. Not only traditional types of fish, but also those that are currently imported can be produced in the country. Among them there are gilthead sea bream, European sea bass, and tilapia. The demand for aquaculture products has the least realization in Ukraine.

Table 6. An average price on fish and fish products in 2014 -2015, per 1 kg/dollar USA

(According to the data of the State Statistics Service of Ukraine)

Marketable groups	2014		2015		2015/2014, %	
	Export	Import	Export	Import	Export	Import
Fish, crustacean, mollusks and other aquatic invertebrates	1,25	1,93	2,41	1,38	192,7	71,3
Fish, fresh or chilled, excluding filleted and other fish meat	0,85	6,41	0,84	4,99	98,1	77,9
Fish, frozen, excluding filleted and other fish meat	1,31	1,57	1,16	1,09	88,5	69,3
Fish fillets and other fish meat (including minced), fresh, chilled or frozen	7,29	2,10	4,29	1,97	58,9	93,6
Prepared or tinned fish; black caviar and its substitutes	1,15	2,18	1,40	1,72	121,4	78,9
Total	1,23	1,97	2,05	1,42	166,8	72,0

An actual capacity of the market in 600-650 000 tons could be able to increase by 30-40 % if aquaculture and CBF intensively developed together with realistic, affordable and sustainable prices on fish and fish products.

RECOMMENDATIONS FOR
UKRAINIAN FISH TRADING DEVELOPMENT

ACTIONS
- need to develop a program for import phase-out of fish products. Ukraine does not have the resource base of clupea, scomber, halibut, atlantic salmon and many other types of fish which the buyers are looking for. Besides, there are conditions to grow European plaice, rainbow trout, Coregonus, channel catfish, perch, starry sturgeon, and American paddlefish. Not only traditional types of fish can be produced, but also those that are currently imported (gilthead seabream, European seabass, tilapia);
- need to expand assortment of fish products through the position of the lower price group;
- need to open an exchange trade for fish and fish products;
- need to focus in two fields: modern refrigerators and processing enterprises. The need for modern refrigeration storage capacity for today is about 100 ths. tons of simultaneous storage. Fishing in Ukraine is seasonal, that is why it needs the required freezing and refrigerating storage for increasing production capacity;
- to satisfy the growing demand in fish products produced with the new technologies, with fresh materials, packed in convenient packaging and in demand in products that do not need long cooking: filleted fish, fish steaks, surimi (crab and fish sticks);
- to establish appropriate regional distribution centers, preferably with large fisheries or fish-extraction and processing enterprises that is facilitating the interactions with producers;
- to develop an infrastructure that is significantly decrease the prices for consumer market, and an ability to save the large amounts of products will enable to operators of fish market obtain additional incomes;

- need to establish packing and packaging of finished products and semi-finished fish products;
- need to establish of local-level enterprises with mainly small-scale wholesale sales warehouses with a view to approach maximizing fish production to areas of consumption and provide for the needs of urban and rural districts;
- have to improve the quality of smoked and salted fish, as some entrepreneurs use the shavings to make smoked fish but not timber, without tar;
- need to extend the network of specialized fish stores;
- have to inform the consumers about the place of production and placing another additional information, for example, recipes for fish dishes;
- have to organize the advertising campaign including the assortment's range that has expanded and has deepened by yet unseen species of fish in recent years; - have to provide an educational work with consumers through the media and TV;
- need to supply the companies-providers by specially equipped vehicles for transportation of fresh fish;
- to reform the domestic fish market should pay attention on potential and demographic trends in a particular region, the distribution and level of regularly incomes, the business climate and the level of regional competition;
- have to assess the real situation of the supply and demand balance for decision the measures to protect the domestic market;
- provide enough information to local producers as to fish market situation

so that they can use it to their advantage;
- Ukrainian market is still a developing one. A great number of fish and seafood is imported every year; as a result there is a big competition for the local producers with the supermarket chains;
- the main feature of aquaculture sector is that there are a lot of small-scale producers/enterprises with less than five workers. That kind of structure can be obstacle in the development of the market, since its competitiveness is pretty low;
- the aquaculture sector is undiversified both in the area of species composition of aquaculture objects and in the area of products on the market. That is why investments for the introduction of new aquaculture objects are necessary, as is the increase the value of existing capacity on the national level;
- there are several enterprises in Ukraine that are experimenting with the production of aquaculture objects and use of the new technologies;
- it is necessary to invest into already existing capacities for their modernization. Special attention might be drawn to specific aspects, especially to the segment of commercial cultivation of carps for the investors to consider the possibility of investments into this segment;
- there appears to be the lack of investments because the issue of ownership right is still legally unregulated, especially when it concerns the land and the old once state aquaculture farms and buildings.