

Fish Market Review 2015

Jari Setälä, Kaija Saarni
Natural Resources Institute Finland (Luke)
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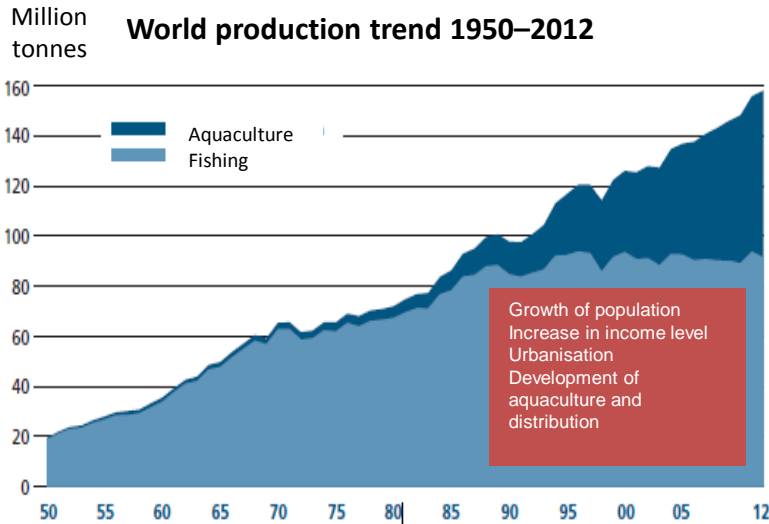
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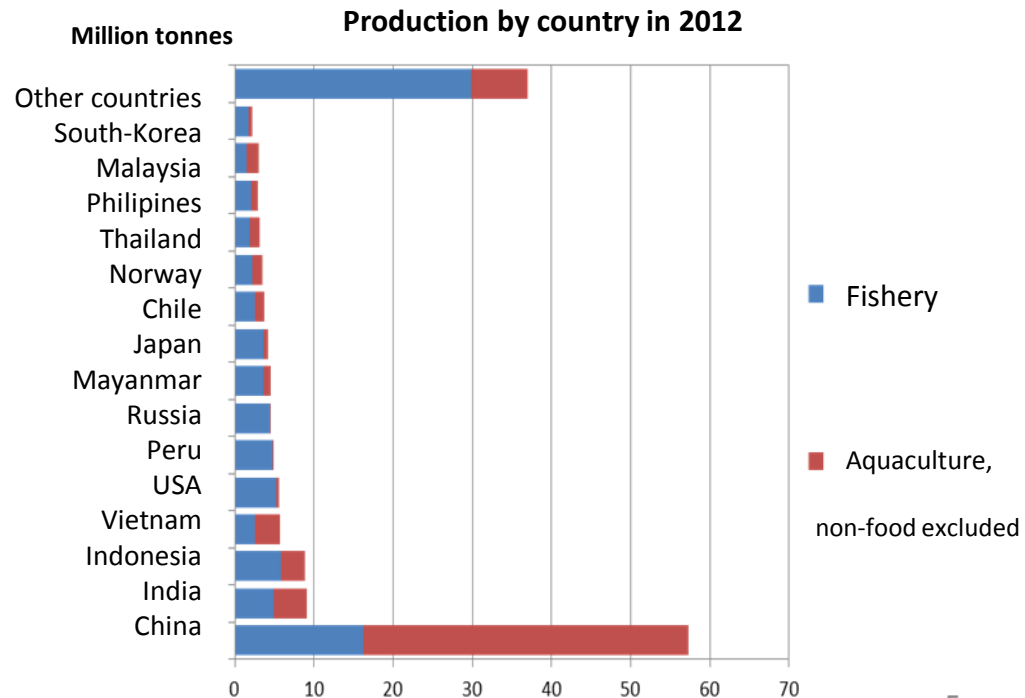
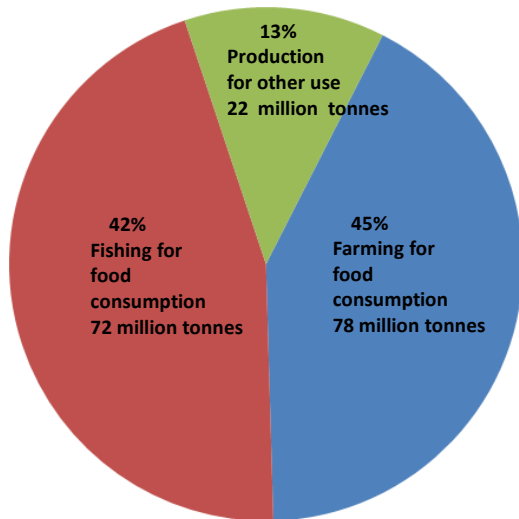
World market

Aquaculture fastest growing food production



In 2012, a total of approximately 158 million tonnes of fish, shellfish and molluscs were produced worldwide. The forecast for 2015 is approximately 170 million tonnes. A third of the catch is used for purposes other than food. During the past 50 years, fish production has grown twice as fast as the population. Growth in recent years has relied on aquaculture, which has increased most in Asia. China is clearly the most important producer, both in fishing and in aquaculture.

Use of global production in 2015



Growth of fish production continues

Outlooks from 2012 to 2022

Catches will increase by 5%

- **Management of fish stocks will improve and fish stocks will recover**
- **Fish stocks will be utilised more efficiently**
 - Catch discarding will decrease
 - Catch utilisation for feed will decrease, but utilisation of side streams will be intensified
 - Fifty per cent of side streams will be utilised by 2020
 - Amount of feed raw material will increase by 10–15%

Fish consumption will continue to grow

- **Production will grow faster than the population**
- **The annual growth rate of consumption will slow to 0.6% (between 2002 and 2012 it was 1.8%)**
- **Average consumption will increase to 21 kg per capita/year (currently 19 kg per capita/year)**
 - Growth will occur in developing countries
 - Exception is Africa, where the population is growing faster than production
 - Stable consumption in developed countries

Fish farming will growth by 35%

- **Aquaculture will surpass fishing in food production in 2015**
- **The annual growth rate of production will slow to 2.5 % (6.1% between 2002 and 2012)**
 - Lack of space in freshwater
 - New marine production in more difficult locations
 - Production costs will rise

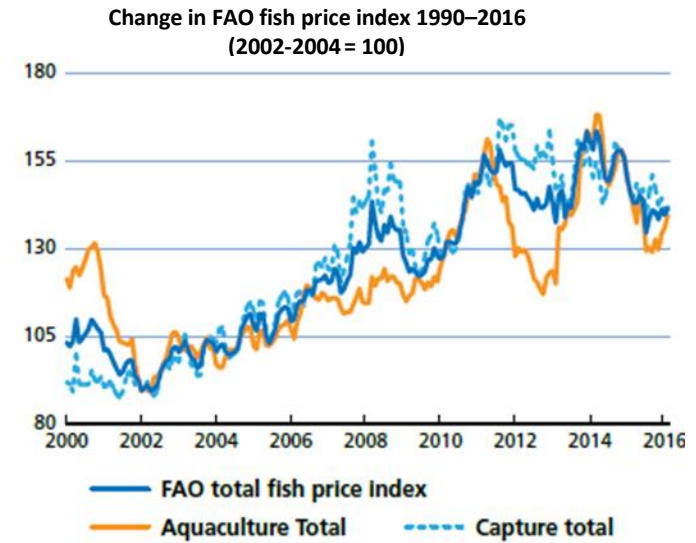


Value of fish products expected to increase

Outlooks from 2012 to 2022

Fish prices will rise

- **Average price for captured food fish will rise by 39%**
- **Average price for farmed food fish will rise by 33%**
 - Growth of population and incomes
 - Increase in meat price
 - Increase in energy and feed costs
 - Demand will grow faster than production
- **Price of fishmeal will increase by 6% and fish oil by 23%**
 - Competition for scarce raw material will intensify



Source: Norwegian Seafood Council (NSC)

Internationalisation of trade will continue

- **Foreign trade in fish will increase, but the annual growth rate will slow to 1.8% (3.3% between 2002 and 2012)**
 - Slowdown in growth of aquaculture production
 - Increase in labour and transportation costs
 - Outsourcing of fish processing decreasing

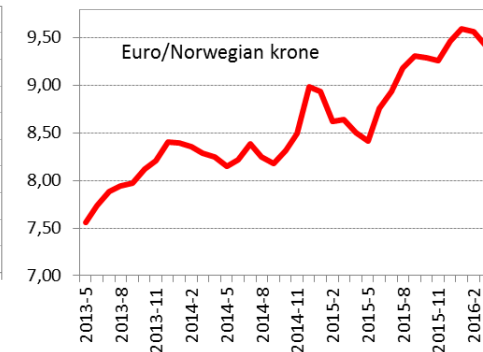
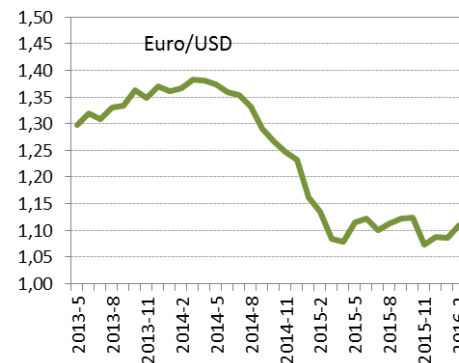
Strong dollar slowed fish trade in 2015

Fish production and consumption grows as anticipated in the forecast. The total fish trade volume has remained unchanged, but the value decreased substantially in 2015. The main reason for the decrease in the value of trade was the strengthening of the US dollar in relation to the currencies of other important operators in the fish trade (e.g. the EU, China, Japan, Norway). The markets of many developing countries weakened and the economies of Russia and Brazil were in difficulty. Russia's economic sanctions and embargo on imports upset the market. China's exports fell and Peru's fish catches decreased. The prices for many valuable products such as salmon, tuna and shrimp fell.

Fish production is expected to grow also in 2015. Growth will continue to depend almost entirely on aquaculture. The international fish trade is estimated to be more stable than last year and the decrease in the value of trade is expected to level off. US and EU fish imports are expected to grow, but at the same time the poor economic situation in Russia, Brazil and China will continue to affect demand. The slowdown in the growth of supply will keep the price of salmon high. The value of the dollar is expected to remain high, which will benefit, in particular, exports to the US market.

World fish market

	2014	2015	2016 (for.)	Change: 2016-2015
Production (million tonnes)	167,2	171	175	2,3 %
Capture fisheries	93,4	93,5	93,6	0,1 %
Aquaculture	73,8	77,5	81,4	5,0 %
Trade value (USD billion)	148,1	134,1	132,6	-1,1 %
Trade volume (live weight)	60	59,9	59,9	0,0 %
Total utilization	167,2	171	175	2,3 %
Food	146,3	149,4	153,6	2,8 %
Feed	15,8	16,5	16,3	-1,2 %
Other uses	5,1	5,1	5,1	0,0 %
PER CAPITA CONSUMPTION				
Food fish (kg/y)	20,1	20,3	20,6	1,5 %
From capture fisheries	10	9,8	9,7	-1,0 %
From aquaculture	10,1	10,5	10,9	3,8 %



China's position in fish market changing

China is the world's biggest importer, consumer and processor of fish. It is also a major importer and exporter of fish. The demand for fish in China is continuing to grow as the population increases and becomes wealthier. China's fish imports are forecast to increase, as the country's own capacity for production is decreasing on account of competition from land use and the deteriorating state of the environment.

A large amount of frozen whole or gutted white meat fish is imported to China for processing. The most important single imported product is frozen Alaskan saithe from Russia. Most of the fish is filleted, frozen and exported to the international market. Between 2002 and 2010, China's exports to the EU quintupled. Exports have subsequently remained at approximately EUR 1.5 billion.

The stagnation of growth in China's exports is due to increased domestic demand in China and to the fact that labour costs have increased and many suppliers have transferred or are planning to transfer processing to eastern Europe or to other countries in Asia, for example, Vietnam. Russia is planning to increase its own fish processing production and improvements in processing technology will increase production in the EU and the US, too. The lead times of mechanical production lines and yields have improved substantially.



Salmon market

Salmon market mainly in Europe

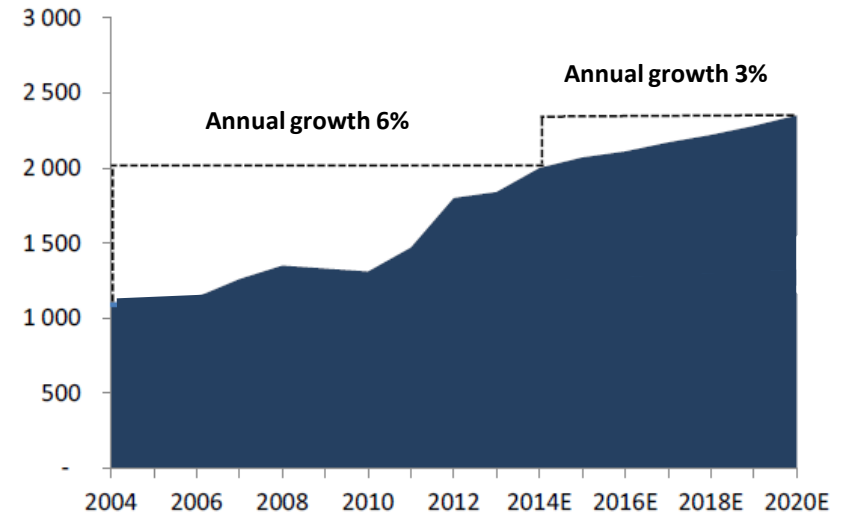
Atlantic salmon is one of the most important fish products in the developed industrialised countries and the most important fish in the Finnish market. Approximately 2 million tonnes of salmon are farmed annually. Salmon production has increased over time, on average, by 8% annually. The increase in production has slowed down and is expected to continue to slow, as there is a shortage of fish farming locations. Norway produces over half and Chile slightly less than a quarter of the total volume. Other producers are in North America or Europe. Production is concentrated, as large companies have acquired smaller ones. The main markets for salmon are in the EU and North America. Consumption of salmon is growing rapidly also in developing countries. Demand in Russia has slowed down on account of the country's weakening economic situation and the embargo on exports.

Output of world's largest salmon producers and share of global output in 2015

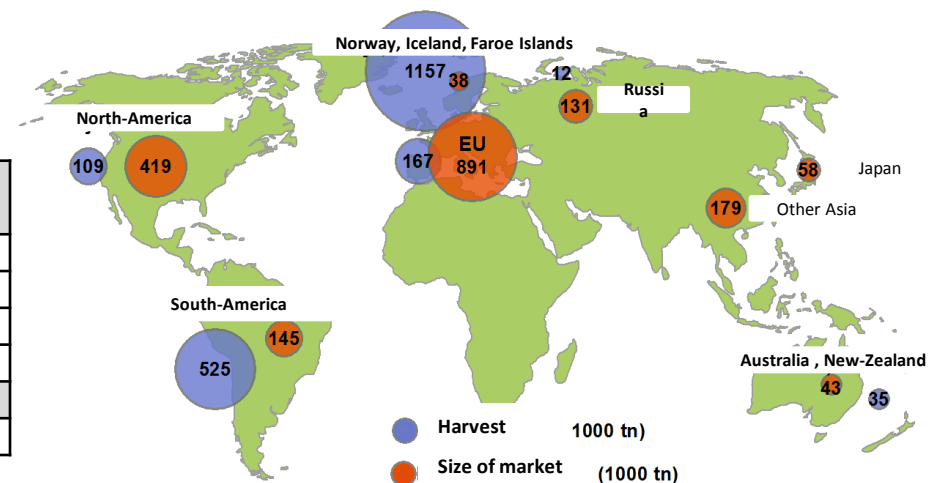
4 top players of farmed Atlantic salmon	Harvest (thousand tonnes GWE)	%
Marine Harvest	419	20 %
Lerøy Seafood	183	8 %
Cermaq	163	9 %
Salmar	150	7 %
Harvest of top 4	915	44 %
Harvest of Atlantic salmon	2 077	100 %

Sources: Marine Harvest Salmon Farming Industry Handbook 2015

Trend in total production of Atlantic salmon



Production of Atlantic salmon and market areas in 2014

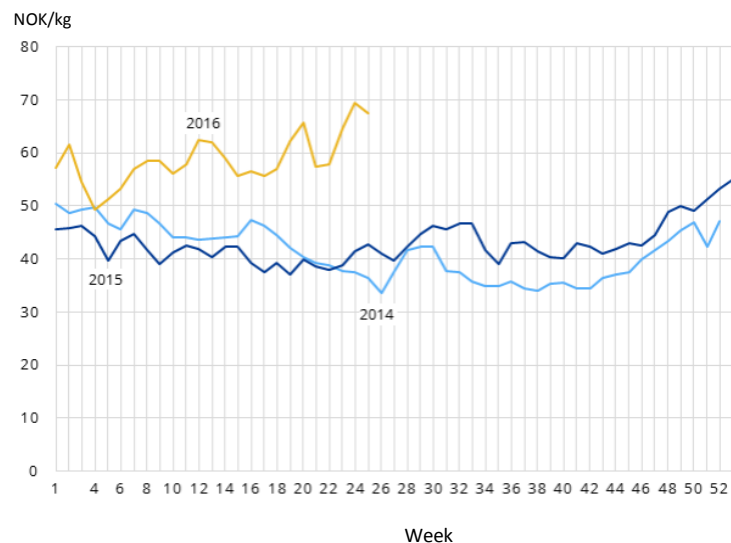


Price of salmon determined in the global market

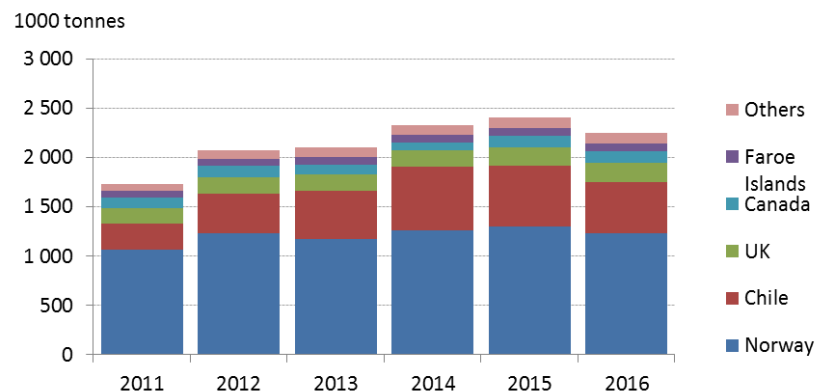
The price of salmon is determined in the global market in accordance with demand and supply. It is typical for the salmon market that changes in supply have a considerable impact on prices. In recent years, the demand for salmon has grown faster than supply and therefore prices have remained relatively high. In the autumn of 2014, Russia's embargo on imports caused uncertainty in the market, but prices recovered quickly. In 2015, salmon prices remained stable until they took an upward turn at the end of the year. In the spring and summer of 2016, salmon prices were at a record high, as the supply of salmon decreased on account of Chile's algae problems. In the autumn, prices may start to fall.

Fish production conditions (temperature of sea water, fish diseases, fry situation, biomass restrictions), fish quality, concentration of production, feed prices, purchasing contracts, exchange rates, trade restrictions and other trade policy as well as market area-specific factors affect salmon price formation. Changes in the world market are rapidly reflected in all market areas. On account of the trade embargo concerning Norway, Chilean producers actively sought markets in Russia. Norway nevertheless managed relatively quickly to increase exports to the EU and to Chile's traditional market in the US. Norwegian salmon succeeded in the US market, but Chile's salmon trade to Russia is drying up.

Export price trend for Norwegian fresh salmon 2013–2015



Trend in total production of Atlantic salmon



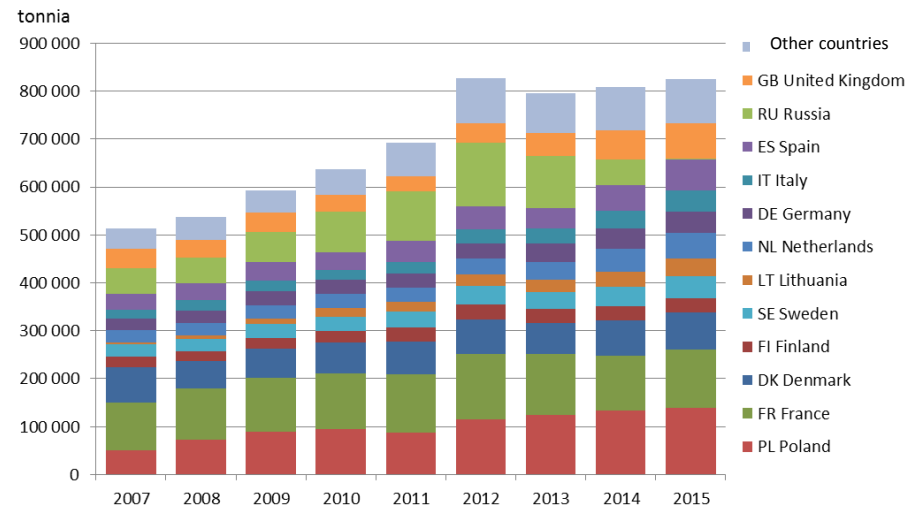
Poland EU's largest salmon importer

The growth of Norway's salmon production has slowed down since 2012. If Norway's production no longer increases or even decreases, salmon prices may remain high for a longer period of time. The exchange rate of the Norwegian crown weakened on account of the fall in the price of oil against the dollar and the euro. This improved the competitiveness of Norwegian salmon both in the US and EU market. Norway is increasing salmon processing in the EU. Poland is currently the biggest exporter of Norwegian salmon. Nearly half of the salmon imported to Poland is processed for the EU market in the world's largest salmon processing plant, which is owned by Marine Harvest. Norwegian farmers have established filleting plants also along the coast of Norway.

The year 2015 was challenging for EU salmon farmers. Exports of Scottish salmon decreased by 17% and the value of exports by 22%. Scottish exporters suffered from Russia's sanctions, as it was difficult to find replacement markets for salmon produced for Russia. In fact, low-price Norwegian salmon was also imported to Scotland. Scotland lost markets in the USA and China, too, even though it was eventually able to increase exports to other EU countries. The price of salmon, which remains high, however, may increase the keenness of farmers in Ireland, Iceland and Canada to boost salmon production in the future.

Chile's problem now is a decline in both production and demand. The toxic algae blooms have killed a large number of fish. The reputation of Chile's fish has also suffered from misgivings concerning antibiotics. Chile lost markets in the US's growing economy, and salmon purchases by Russia and Brazil, which are struggling with economic difficulties, have diminished. Chile's difficulties may lead to lower prices or market disturbances.

Exports of Norwegian salmon to the EU

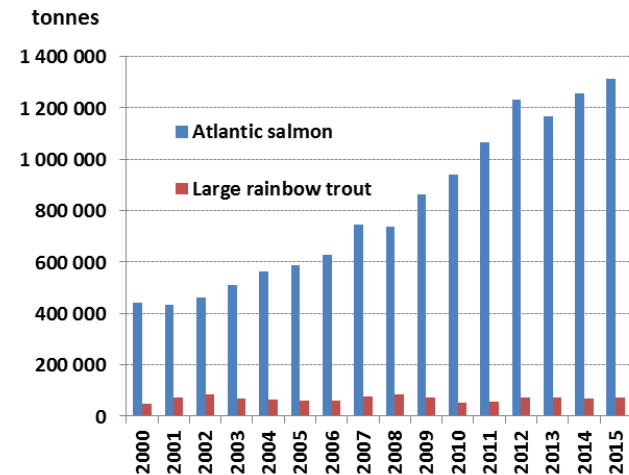


Rainbow trout market is sensitive

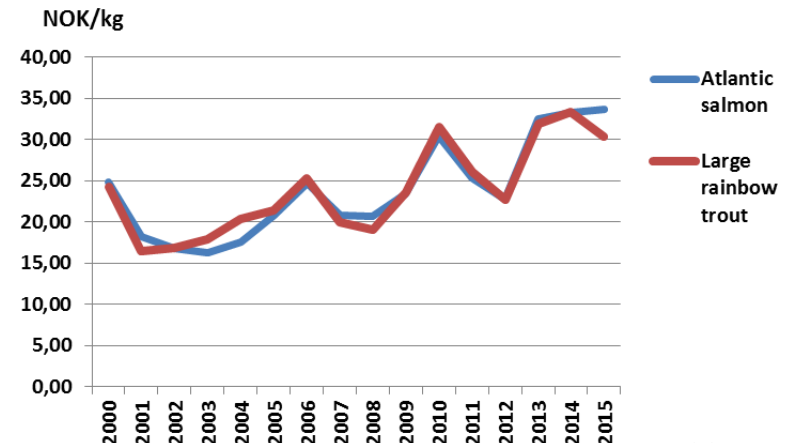
Approximately 130 million kilos of large rainbow trout are produced in Europe. Around half of this is produced in Norway. Other important producers are Finland, France, Denmark and Sweden, whose annual production is about 10 million kilos. The rainbow trout market is more sensitive than salmon to market disturbances, as the importance of individual markets is greater.

Large rainbow trout accounts for only 5% of Norway's salmonid production. In 2015, export volumes of Norwegian rainbow trout increased by 4%, while price fell by 10%. The reason for the slump in prices was due to Russia's import restrictions. Following the decline in exports to eastern Europe, exports to the US, EU and Asian markets have increased. The average prices paid to salmon and large rainbow trout producers have been uniform. In 2015, the price for large rainbow trout was nearly 10% lower than for salmon, as it was harder to find new markets for rainbow trout than for salmon to replace exports to Russia.

Production volumes of Norwegian salmon and large rainbow trout



Producer prices for Norwegian salmon and large rainbow trout



Fish oil and fishmeal market

Fish oils part of growing health product market

The global fishmeal and fish oil market experienced a crisis in the 1980s when the aquaculture expanded. Before this, fishmeal and fish oil were more clearly a part of the wider protein and vegetable oil market, whose products were utilised as feedstuffs in the pig and poultry sector. Nowadays, fishmeal is used a great deal in aquaculture, fish oil is used mainly in the cultivation of predatory fish. Since the beginning of the 2000s, the growth of aquaculture and the tightened regulation of fishing have increased prices for fishmeal and fish oil. The use of fish for human consumption also has increased, which has reduced the availability of the raw material for fishmeal.

Increased awareness of the health benefits of fish oils has increased demand for them. Between 1990 and 2012, the health product market's share of the total fish oil market has grown from 5% to 22%. Seventy-five per cent of fish oils continue to be used in fish farming but the share of fish farming will probably decline, as price of fish oil is higher in the health product market.

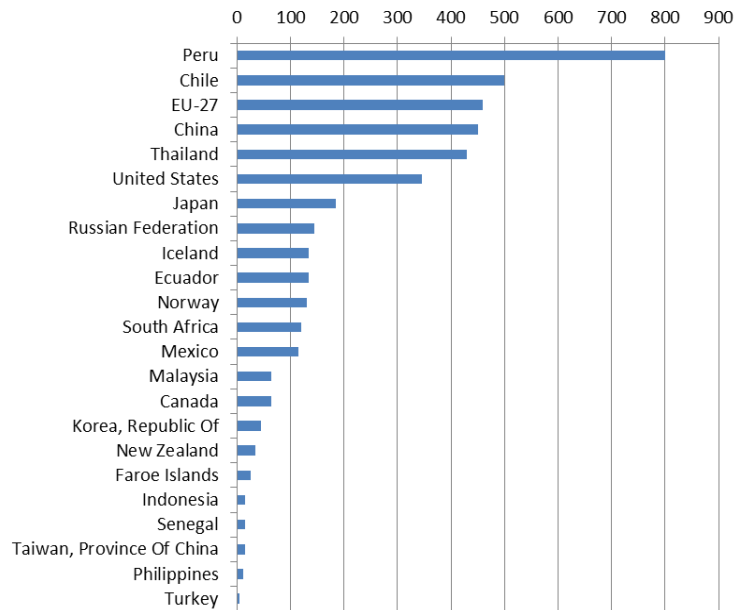


The utilisation of residues from gutting and filleting has increased. The share of fish oil made from side streams has increased between 1995 and 2012 from 5% to 34%. During the same time, the share of side streams in the manufacture of fishmeal has risen from 14% to 29%. By 2023, it is forecast that the use of side streams in manufacturing fish oils will rise from 40% and in fishmeal to 35%.

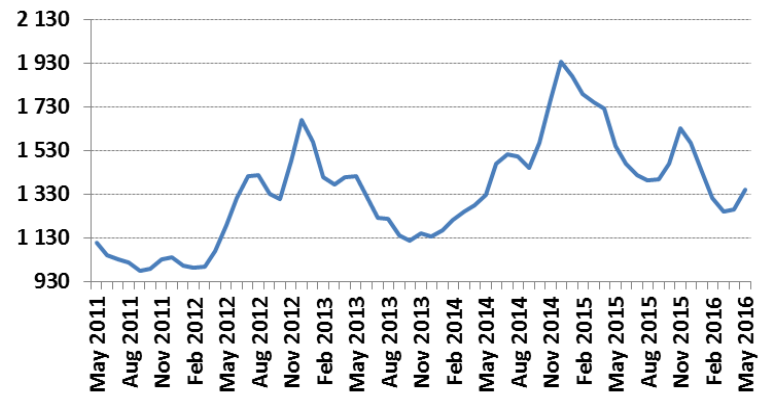
El Niño affects price of fishmeal

In 2015, 43 million tonnes of fishmeal were produced. About 20% of the global fish catch is used to produce fishmeal and fish oil. Over a quarter of the raw material for fishmeal consists of side streams from the industry. The coast of South America is the most important production area and the catches in the area affect prices for fishmeal. Catches in the area have varied considerably in recent years as a consequence of the El Niño weather phenomenon. It is expected that the weather phenomenon will abate in 2016. Availability of the raw material for the fishmeal industry is expected to remain stable and prices to stay at current levels. In the longer term, prices are expected to rise. In Europe, approximately 0.5 million tonnes of fishmeal are produced. Denmark, Norway and Iceland are the biggest producers.

Fishmeal production countries 2015



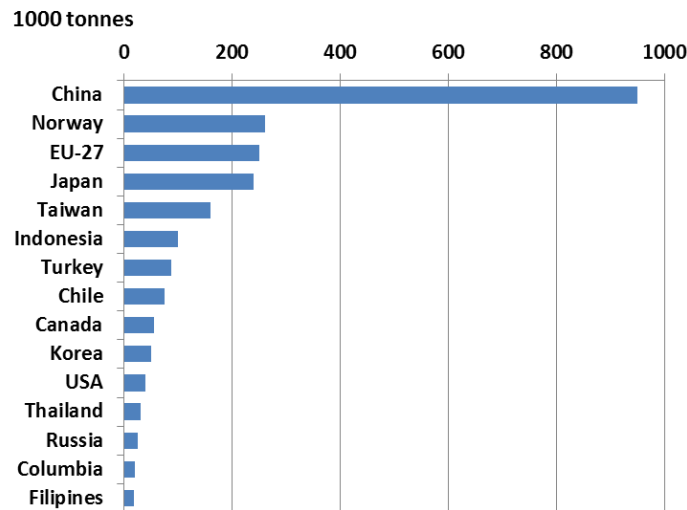
Fishmeal price trend 2011–2016



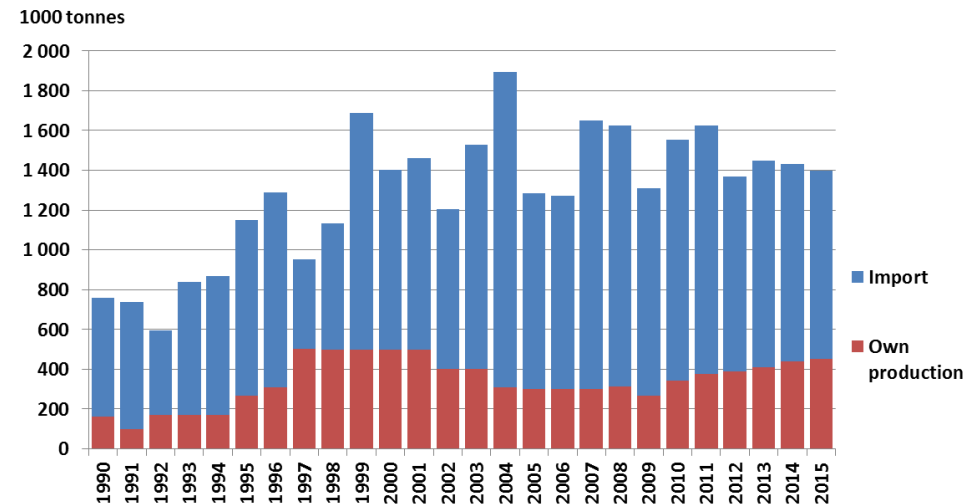
China is biggest buyer of fishmeal

The weakening of China's economy has affected the demand for fishmeal. In previous years following growth, China's imports of fishmeal have shrunk by 30%. In 2015, China purchased 40% of the world's fishmeal output. China produces about 450,000 tonnes of fishmeal itself. China's own production is decreasing as a result of reduced side streams from the fish processing industry and smaller fish catches. The growth of global demand for fishmeal is estimated to slow down, as China's pork and shrimp production is expected to decline.

Fishmeal importing countries 2015



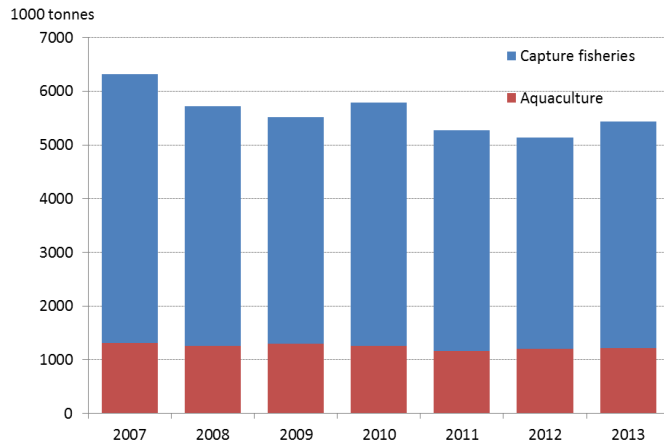
Production and import volumes of China's own fishmeal



European market

Halt in growth of fish consumption in EU

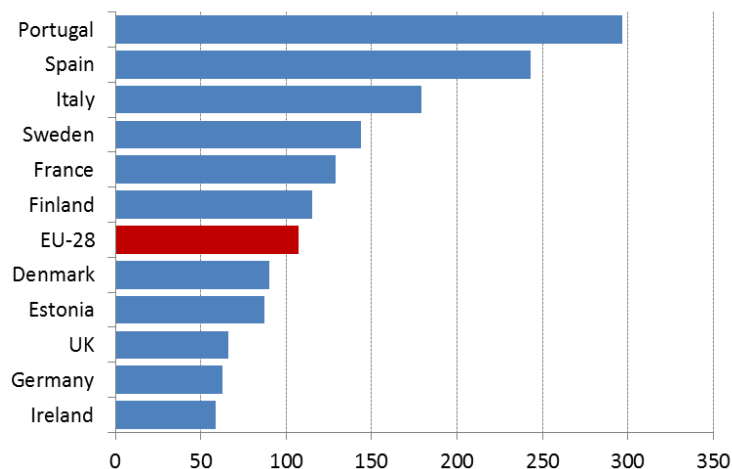
Decline in EU's production



Fish production in the EU has declined by nearly a quarter over the course of a decade. Catches have decreased on account of tighter regulation of fishing and stringent environmental standards have weakened growth in aquaculture.

The EU consumes approximately 24.5 kilos of fish per capita per year. The rise in consumption has slowed down following ten years of growth, which is due to economic crises and the rise in the price for fish. In 2015, food prices remained stable (-0.1%), but fish prices rose by 2.7%.

Purchase prices for fish products in 2013, €/per capita

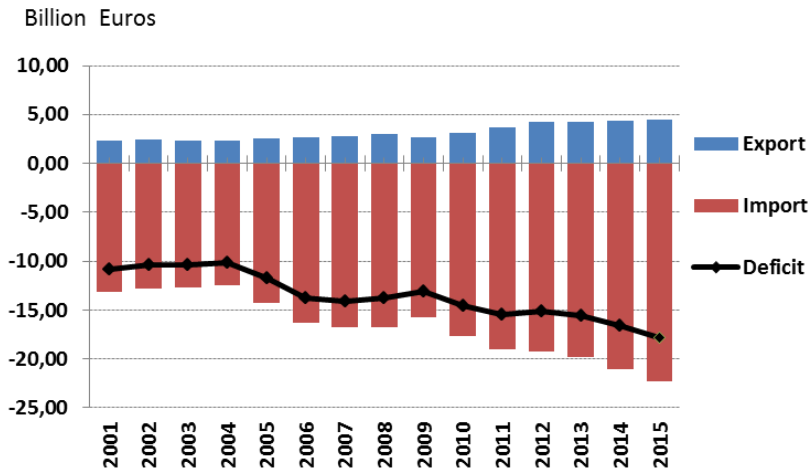


EU citizens purchase approximately EUR 100 worth of fish annually. There are large variations in fish consumption between countries. In the south, use of fresh fish is favoured; in the north consumption centres on processed fish products. In southern and eastern Europe, consumption of fish products is growing but remains lower than in other areas.



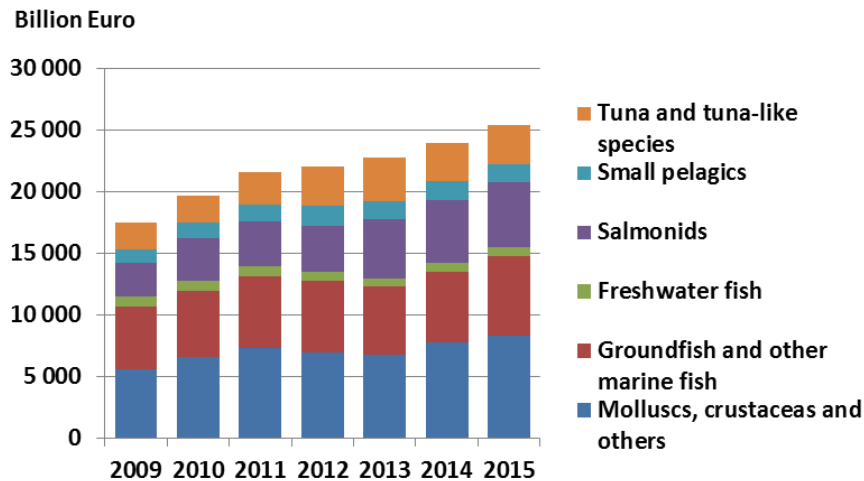
EU's trade balance negative

Growth in EU's trade balance deficit



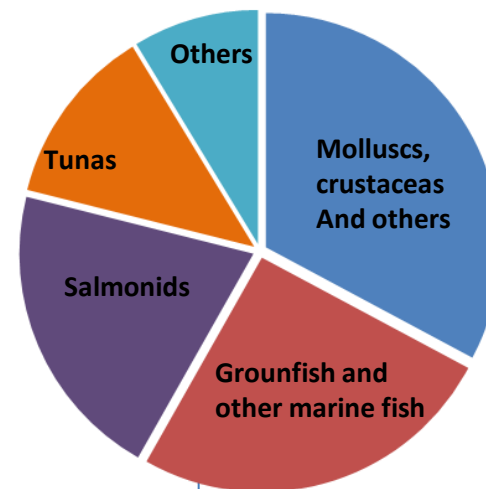
The demand for fish in the EU is strong. This is reflected in the foreign trade in fish, which since 2009 has grown, on average, by approximately EUR 1 billion per year. In 2015, the value of fish imports to EU countries grew by 6% to EUR 4 billion. This was due to the rise in import prices. At the same time, import volumes decreased by 2%. The deficit in the trade balance for fish is increasing. In 2015, it was 30% higher than ten years ago.

Growth in value of exports



The EU's most important trading partner is Norway, which accounts for a quarter of imports. The share of imports from China has risen to more than 7%.

Value of imports by fish group in 2015



Norway's exports to EU continue to grow

The total volume of fish production in Norway rose in 2015 to a record 3.7 million tonnes. Farmed fish production has steadily increased. Currently, it stands at nearly 40% of total production. Fish catches have remained stable, standing at approximately 2.5 million tonnes. The value of total production remained unchanged in euros, but in Norwegian crowns, the value rose by 7.5%.

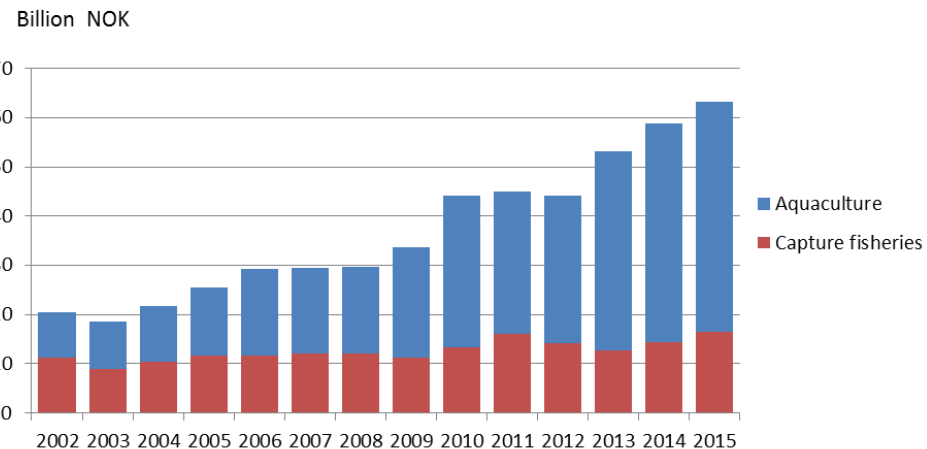
The value of Norway's fish product exports has risen sharply in recent years. In 2015, the value of exports was EUR 8 billion, but growth on the previous year remained below 1%. Salmonids accounted for two thirds of this. The value of cod-like fish stood at EUR 1.5 billion.



In 2015, 67% of Norway's exports went to EU countries. The total value of fish products rose by 8% to EUR 5.4 billion. The volume of salmon exports to EU countries grew by 10%. Exports to Russia, however, dropped dramatically from EUR 400 million to EUR 6 million during 2015. The value of fish products imported to Finland was EUR 152 million. The value of exports to Finland decreased by 4%.

The processing industry in Norway is minimal. Norway mainly supplies the raw material to the fish processing industry in export countries. The most important export products are fresh or frozen whole fish.

Trend in value of Norway's fish production 2002–2015



Domestic market

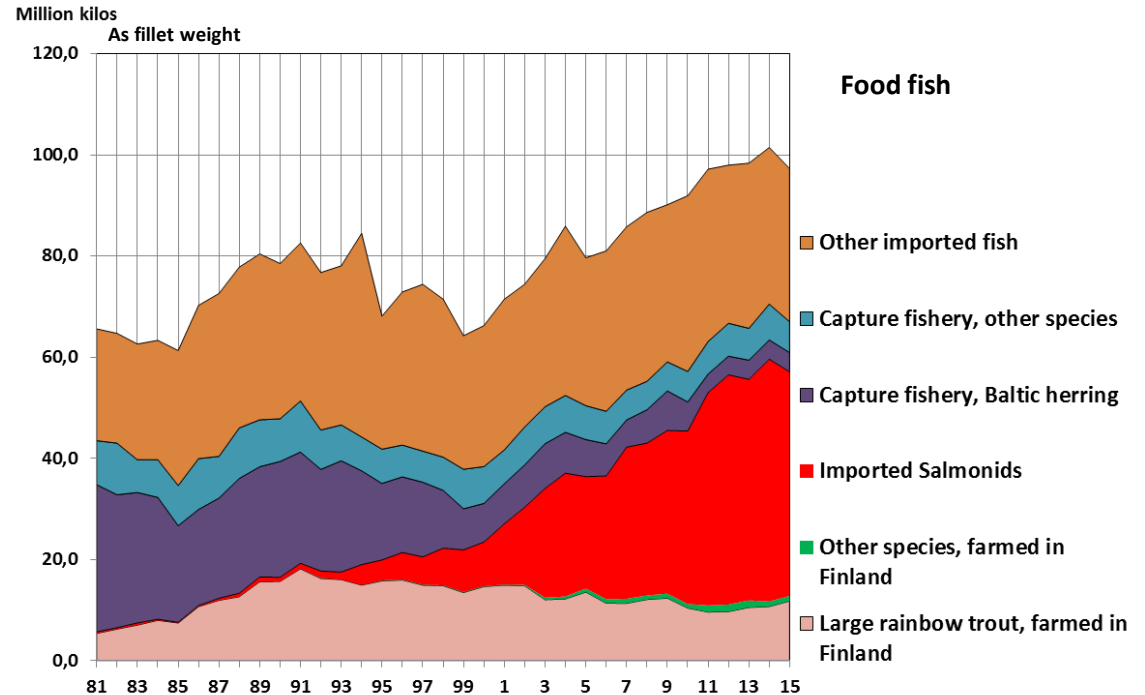
Imported fish

Growth of Finnish fish market based on imports

The demand for fish in domestic food markets has doubled since the early 1980s. The fish market has grown, on average, by approximately 2% per year. Domestic fish has been replaced by imported fish. In the early 1980s, 50% of fish was domestic, while in 2015 imported fish accounted for 82%. Farmed salmonids now account for already half of the market. The majority of this consists of imported fish.

The demand for salmonids has increased over the long term in Finland apace with global production of Atlantic salmon, on average approximately 8% annually. Imports of salmonids have grown considerably faster. In particular, salmonids have replaced Baltic herring, which was the most important commercial fish in the early 1980s. Today, Norwegian salmon has taken its place. In recent years, growth in demand for salmonids has slowed down.

Finnish fish market trend 1981–2015



In 2015, approximately 30 million kilos of fresh salmon were imported to Finland from Norway and a little over 9 million kilos of rainbow trout, mainly from Sweden. Approximately 30 million kilos of other import fish were consumed. Slightly less than 12 million kilos of rainbow trout farmed in Finland were sold to the domestic market, Baltic herring just under 4 million kilos and other wild-caught fish approximately 6 million kilos.

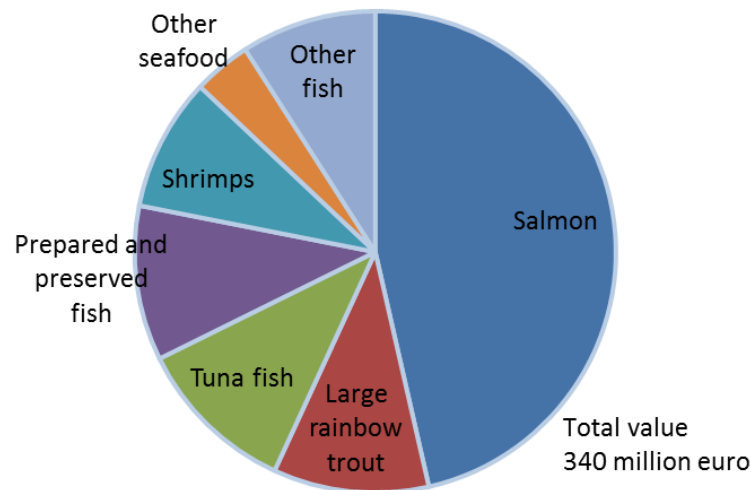
Value of fish imports decreased in 2015

In 2015, fish products worth a total of EUR 374 million were imported to Finland. Of this, products intended for human consumption accounted for EUR 340 million. The value of imports of fish products declined by 6%.

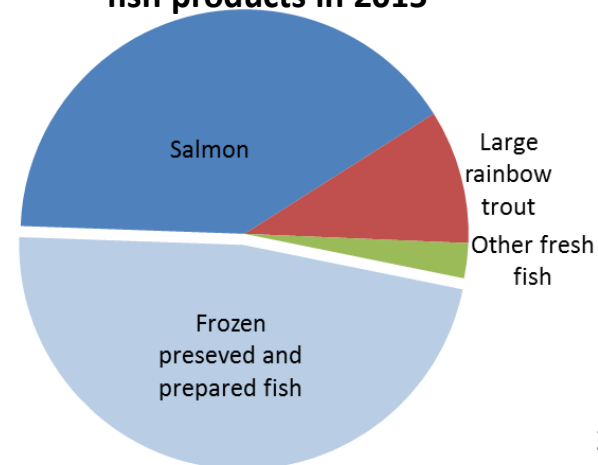
Salmonid imports decreased the most. Salmon import fell by more than 11% and rainbow trout by nearly 9%. The value of imports of salmonids was EUR 194 million. Salmonids continue to account for more than half of the total value of imports. The value of fish products remained unchanged. The value of imports of shellfish, molluscs and fish roe rose by more than 8%. Nearly half of fish imports come from Norway.

In 2015, more than 50% of fish imported for human consumption was fresh fish consisting of gutted or fresh fillets. Salmonid-based fresh fish imports have grown rapidly over the past 20 years. Fresh fish are imported mainly from Norway, Sweden, Estonia and Iceland.

Value of fish imported for human consumption by main product group 2015

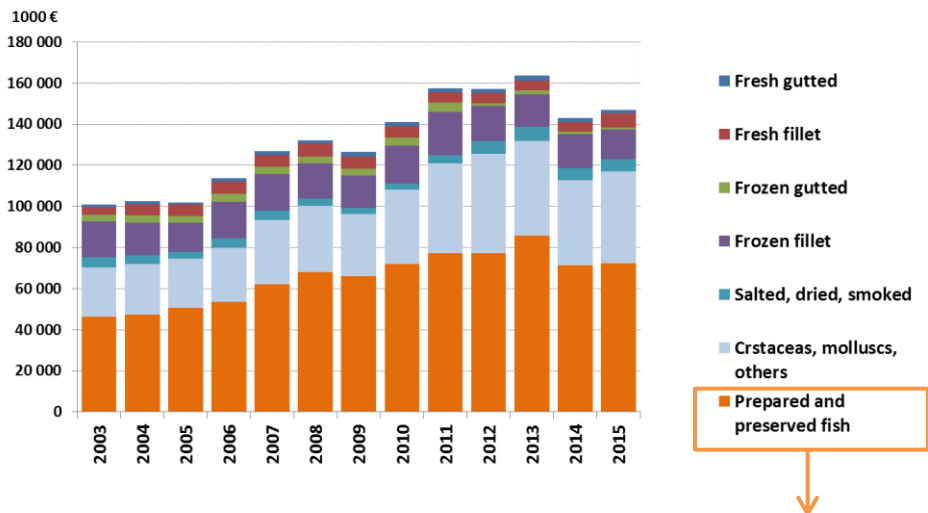


Value of exports by fresh products and other fish products in 2015



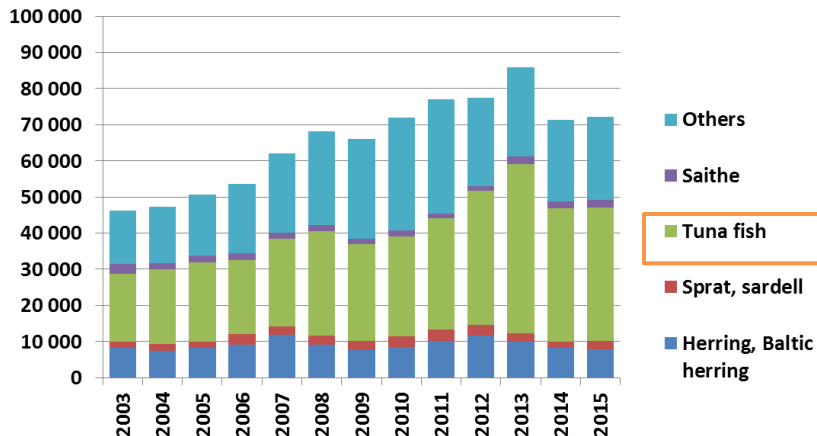
Halt in growth of tuna imports

Trend in value of imports other than salmonids 2002–2015

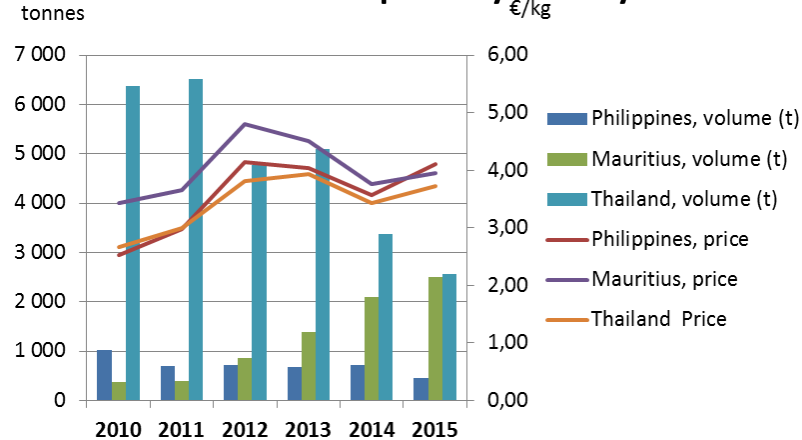


In addition to fresh salmonids, considerable amounts of other fish and fish products are imported to Finland. Imports of these products have increased up until the present decade. During the past two years, less tuna was imported than before. Since 2010, imports from Thailand have halved, while imports from Mauritius have increased.

Trend in value of fish products 2002–2015



Trend in canned tuna imports by country

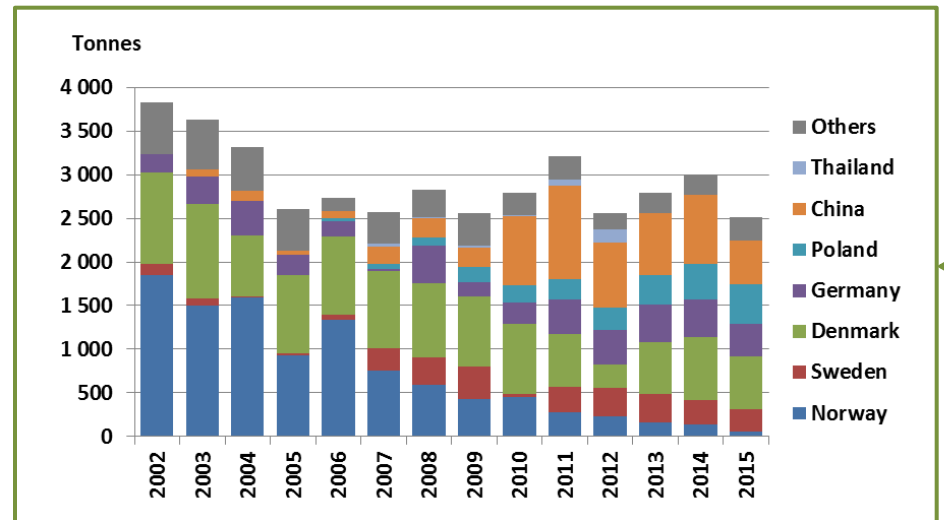
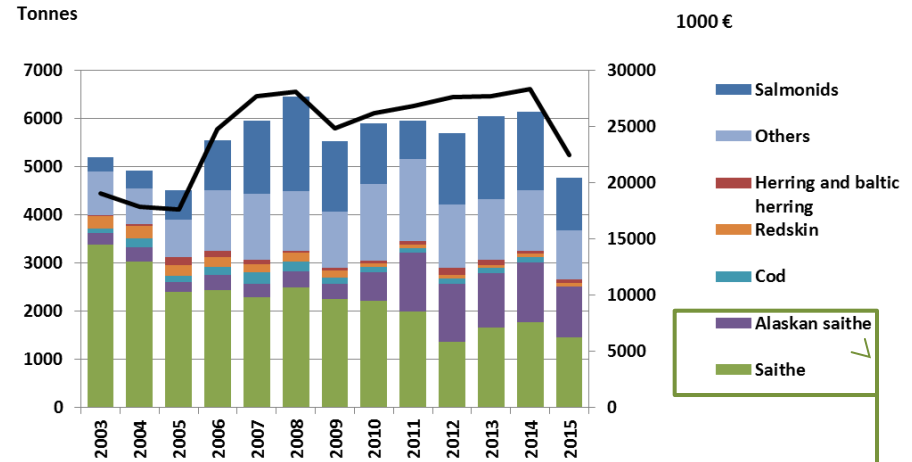


Imports of frozen fillets shrank

Imports of frozen fillets have remained stable for a long time, but in 2015 imports declined by a fifth compared with the previous year. The sharpest decline was in imports of frozen salmon and rainbow trout fillets, which were a third lower than in the previous year.

In the early 2000s, two thirds of frozen fillets imported to Finland were saithe. Nearly 50% of saithe has been replaced by the cheaper Alaskan saithe. China's role as a producer of frozen fillets has decreased in recent years and Poland's has grown.

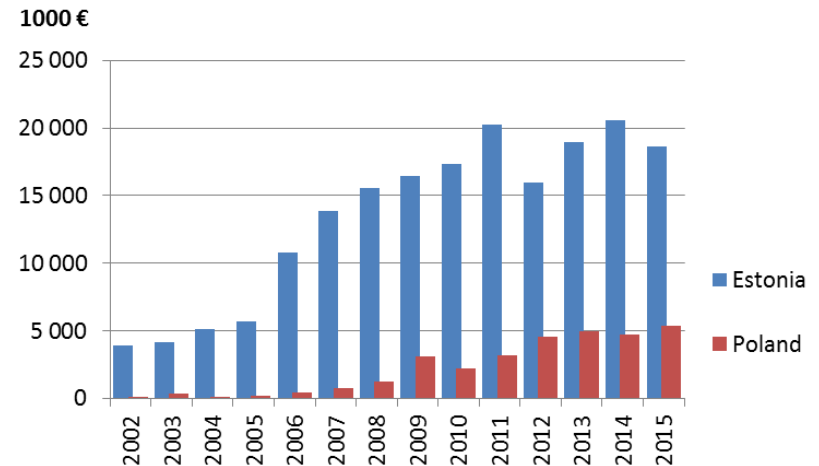
Trend in value of frozen fillets 2002–2015



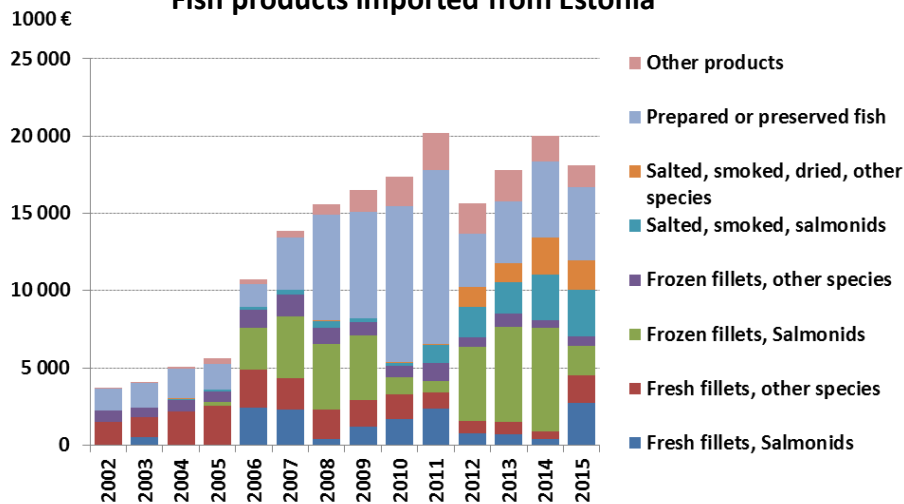
Imports of fish products from Poland increasing

Estonia and Poland accounted for less than 10% of fish product imports in 2015. The value imports from Estonia was slightly less than EUR 20 million and from Poland EUR 5 million in 2015. Imports from these countries has multiplied, however, during the past decade. The value of imports of salmon products, especially, has increased. Some fresh products are imported from Estonia, but none at all from Poland. The import value of smoked and cured salmonids has grown in both countries.

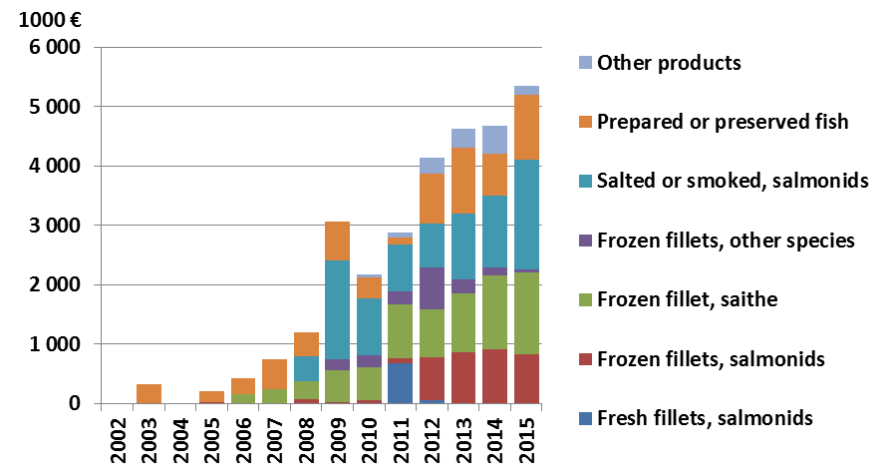
Development of imports from Estonia and Poland



Fish products imported from Estonia



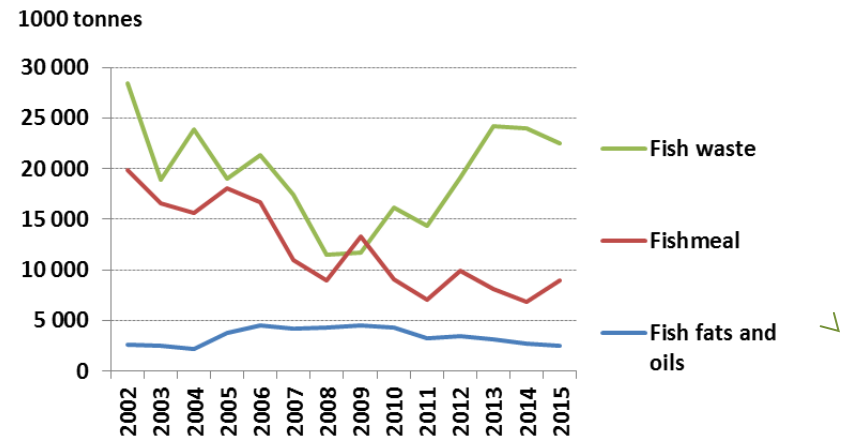
Fish products imported from Poland



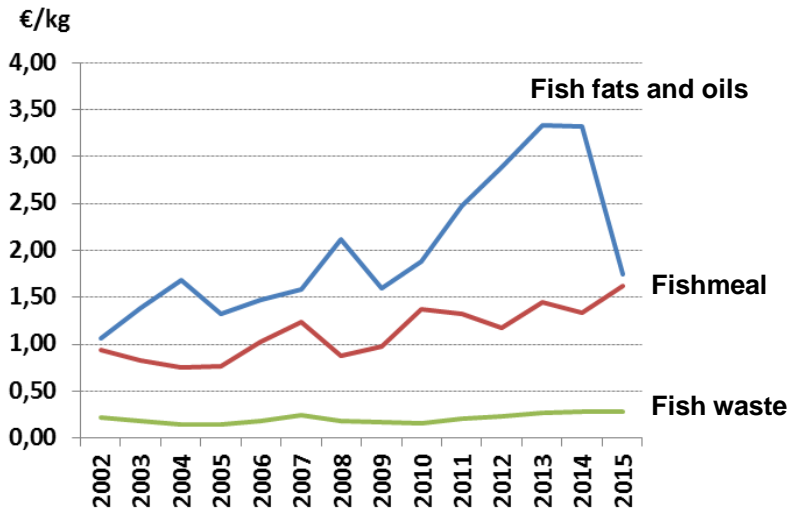
Feed raw materials from Nordic countries

Imports of fishmeal have declined, as the expensive fishmeal used in fish feeds has been replaced by plant-based raw materials. Fish fat and oil import volumes have remained the most stable. In 2015, fishmeal was imported mainly from Iceland and Denmark, and fish oil and fish waste from Norway. Fish waste is used in feed for fur animals. The demand for fish waste grew at the beginning of the 2010s and was at its highest in the fur industry's peak year of 2013. The demand for domestic furs has subsequently declined, but fish waste imports have remained nearly at 2013 levels.

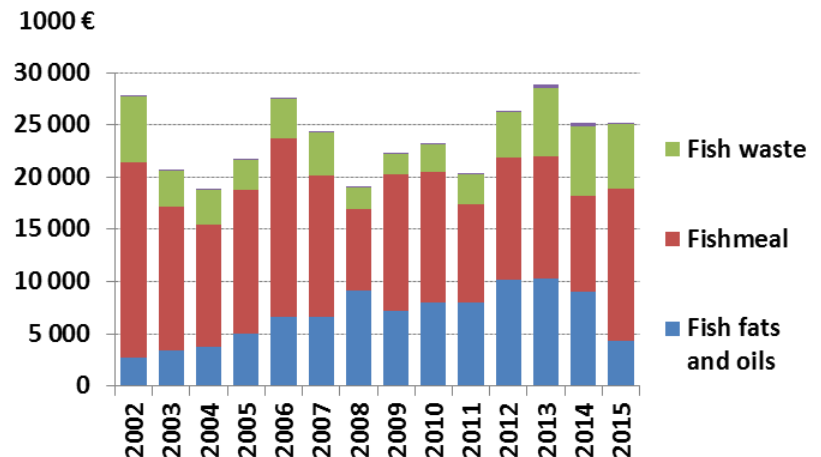
Trend in the volume of imported fish fat, fishmeal and fish waste



Price trend for fish fat, fishmeal and fish waste



Trend in the value of imported fish fat, fishmeal and fish waste



Domestic market

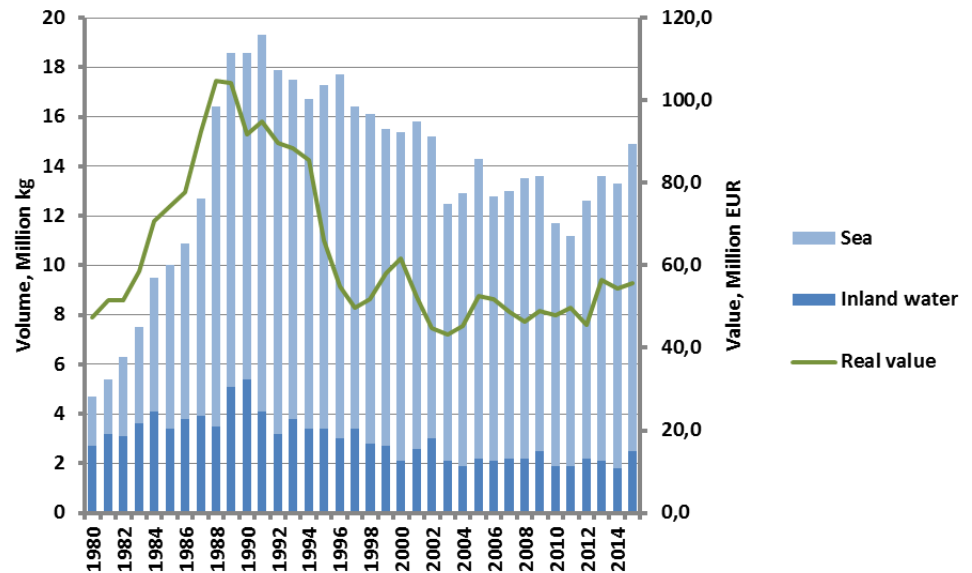
Domestic fish

Domestic aquaculture production mainly large rainbow trout

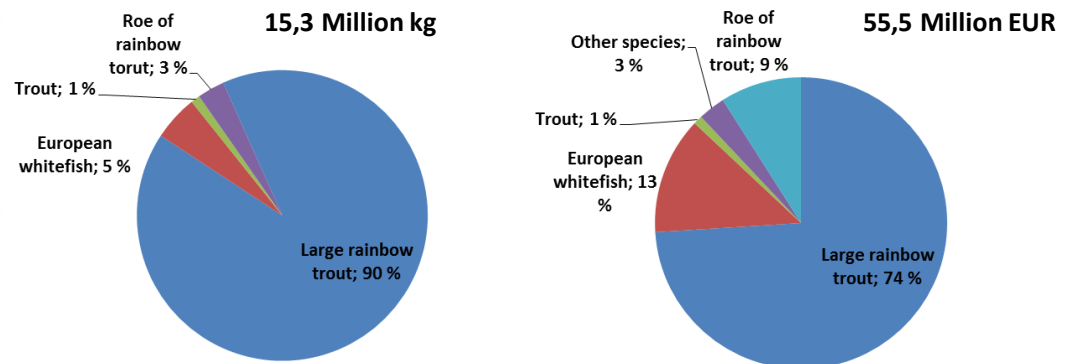
Finland's fish production for food increased rapidly in the 1980s and was at its highest at the turn of the 1990s, standing at more than 19 million kilos. Subsequently, production decreased on account of tightening international competition and environmental restrictions. During recent years, there has been a slight increase in production.

Rainbow trout accounts for the majority of production and its value. European whitefish is the next most important species. Endeavours have been made to diversify production, but other species' share of the volume has remained modest. The value of other species and fish roe was about a quarter of the total production value in 2015.

Trend in fish production for food 1980–2015



Volume and value of food fish production in 2015

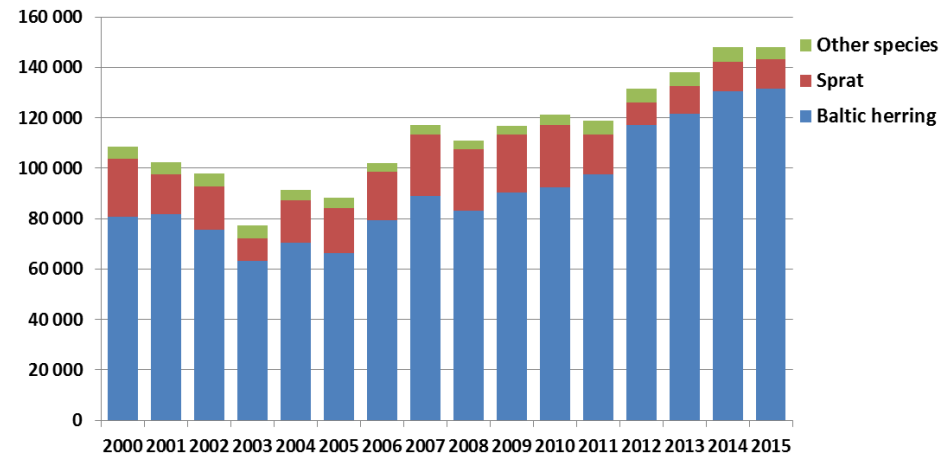


Majority of marine catch Baltic herring

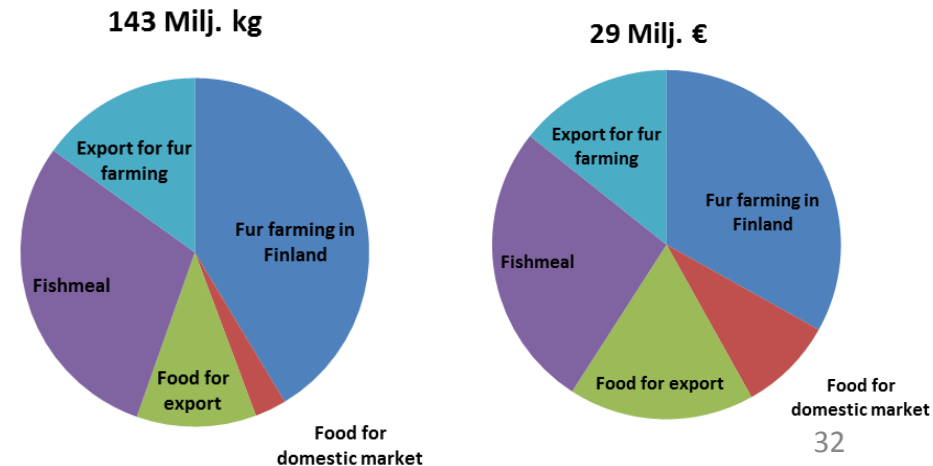
In 2015, the commercial fish catch in Finland's sea area was approximately 148 million kilos. Baltic herring or sprat accounted for 97% of the volume and 75% of the value of the catch. In 2015, more than half of Baltic herring and sprat was used as feed for fur animals in Finland or Denmark. Baltic herring and sprat are imported to Denmark also as raw material for fishmeal. Domestic consumption of Baltic herring for food has declined dramatically over the decades. In the early 1980s, Finns consumed more than 30 million kilos of Baltic herring – consumption today is merely a tenth of this. A considerable volume of Baltic herring for food was previously exported to Russia, but these exports dried up on account of the import embargoes imposed in August 2014. Baltic herring is still exported to Estonia and other eastern European countries.



Commercial marine catch trend 2000–2015

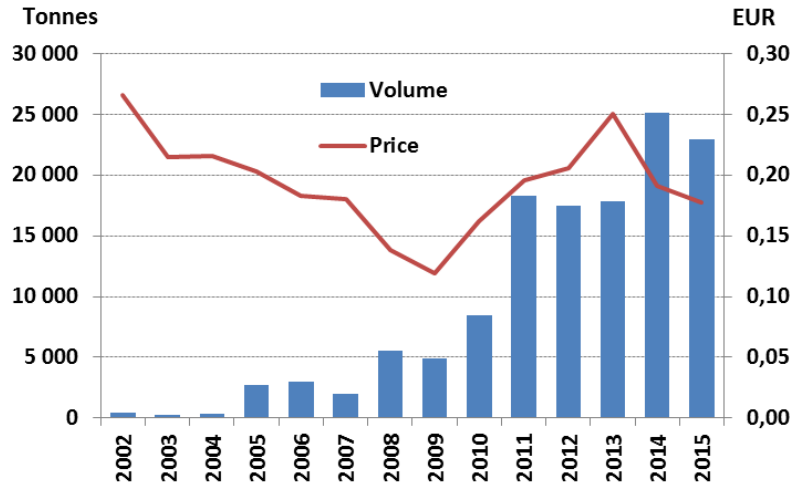


Consumption of Baltic herring and sprat in 2015



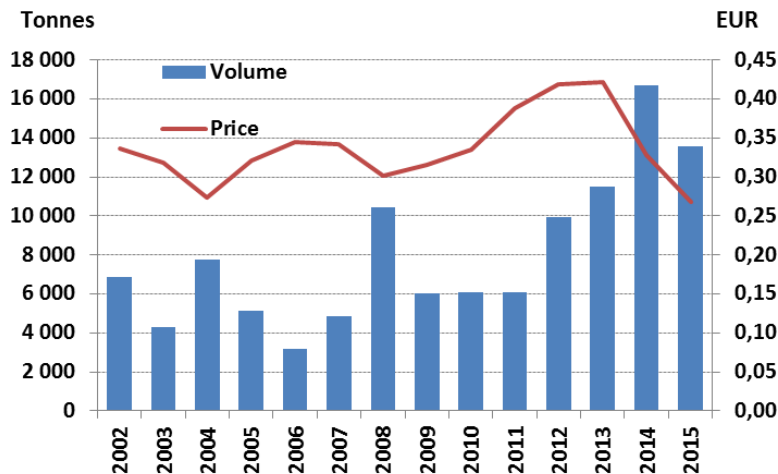
Baltic herring exports to Russia dried up

Export volumes and prices of fresh Baltic herring



A total of fresh and frozen Baltic herring worth EUR 7.7 million was exported in 2015. Exports declined by more than a quarter compared with the previous year. More than 20 million kilos of a fresh Baltic herring was exported to Denmark as raw material for fishmeal and feed for mink. In 2014, fresh Baltic herring was also exported to Estonia and Latvia, but exports to the Baltic countries decreased in 2015. The average price has fallen by nearly a third since 2013.

Export volumes and prices of frozen Baltic herring

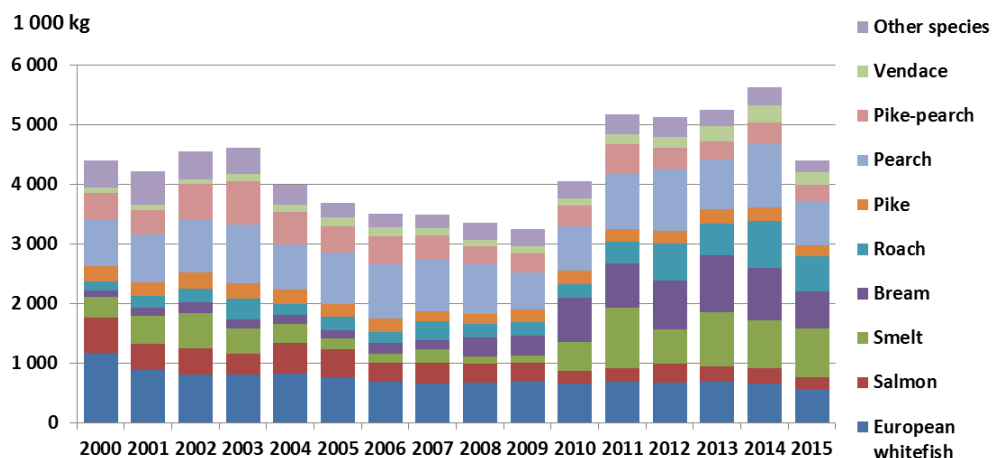


More than 10 million kilos of a frozen Baltic herring for food continued to be exported in 2013 to Russia and elsewhere in eastern Europe. Exports to Russia ceased entirely at the end of the year 2014 on account of the embargoes on imports. Exports to Estonia also declined sharply on account of this. The value of exports of frozen Baltic herring to Denmark, however, increased in 2015. The average price for frozen Baltic herring fell by more than 35% compared with 2013.

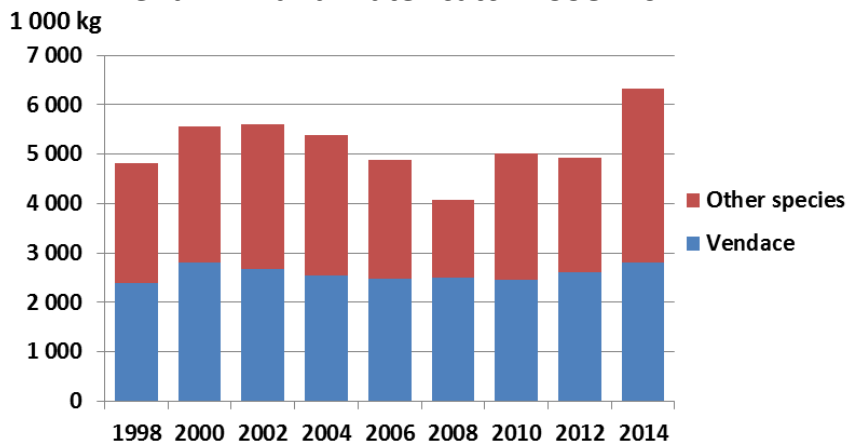
Exceptional weather conditions took toll on catch

Most of the coastal and inland water commercial catch is consumed in Finland. In inland waters, the vendace catch has remained at around 2.5 million kilos. The commercial total supply of other important wild-caught fish for the domestic food market has declined. The exceptional weather conditions affected catches in 2015. The winter and autumn of 2015 were warm and the spring and summer cold. Coastal catches decreased by a fifth. Perch and bream catches in particular decreased, but also catches of many other species were smaller than the previous year.

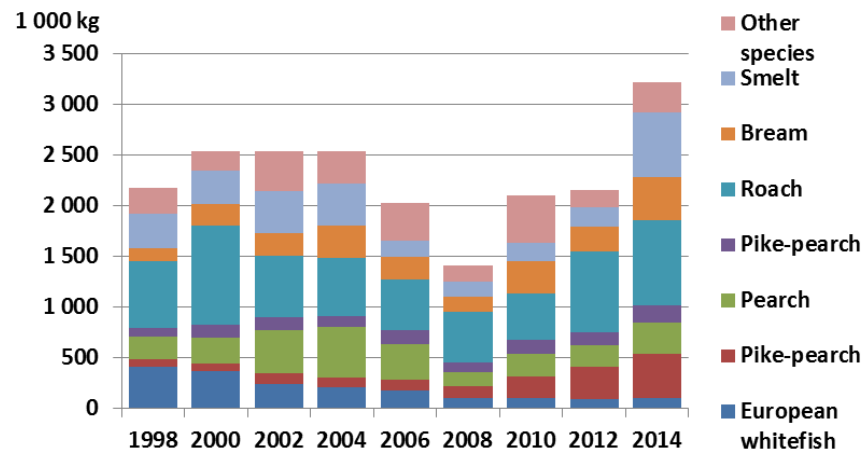
Coastal commercial catch, without Baltic herring 2000–2015



Trend in inland water catch 1998–2014



Trend in inland water catch, without vendace, 1998–2014



Note: The coastal commercial catch includes only the species shown in the image caption, some of the salmon was caught in the southern reaches of the Baltic Sea

Sources: Luke statistics

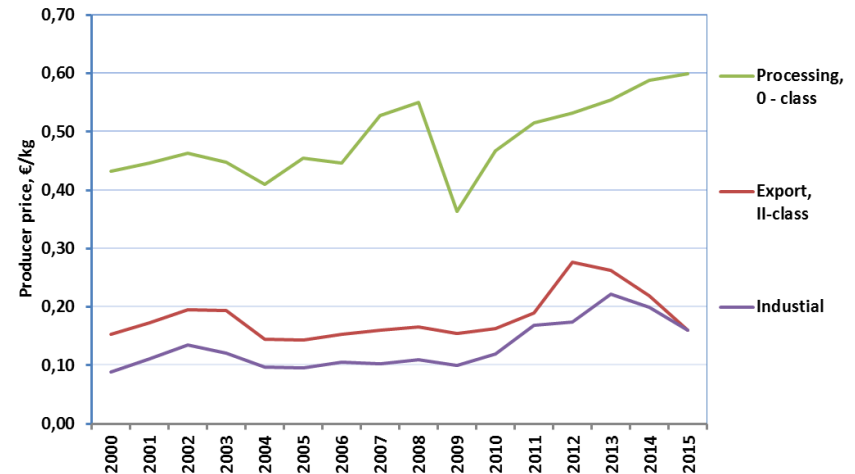
Rise in producer prices for wild-caught fish

Baltic herring producer prices in 2013 were high. This was due to the exceptionally high demand for Baltic herring for industrial use, in particular – fishermen were paid record prices for the raw material both for fishmeal and for fur animal feed. In 2014, the demand for fur skins decreased and Baltic herring producer prices took a downward turn. In 2015, exports of Baltic herring for food almost dried up and size-class II Baltic herring, which had previously been exported to Russia, was used mainly as feed.

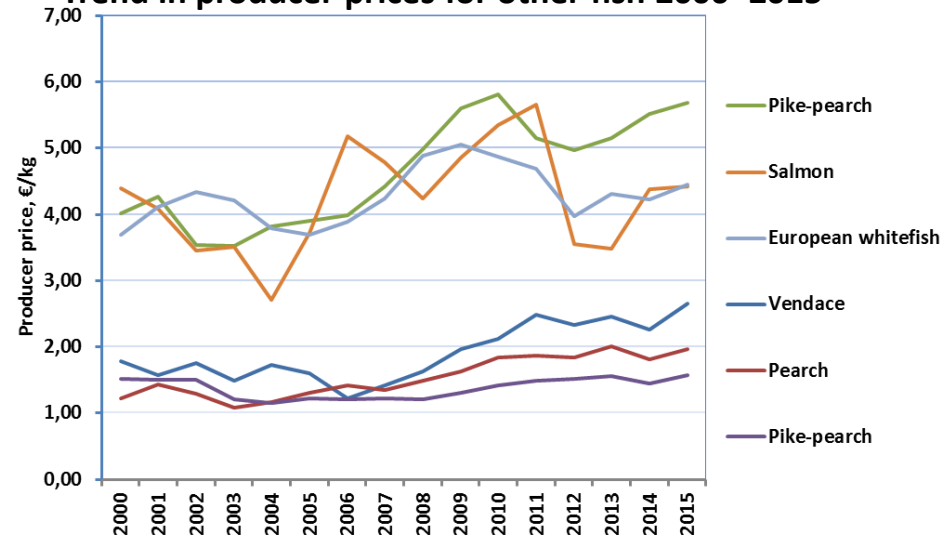
With the increase in the supply of farmed fish, wild-caught fish have become speciality products. Producer prices for vendace and other fresh water fish species have been rising. In 2015, the supply of many fresh water fish species declined, which was reflected in a rise in prices.



Trend in Baltic herring producer prices 2000–2015



Trend in producer prices for other fish 2000–2015



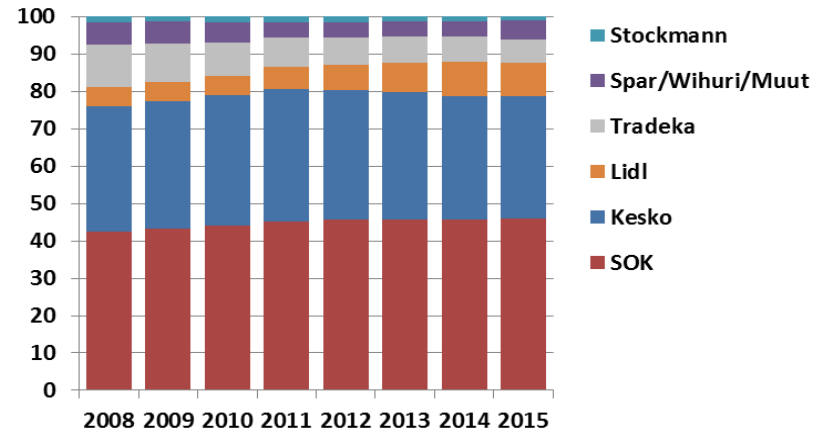
Finnish food market

Food prices falling

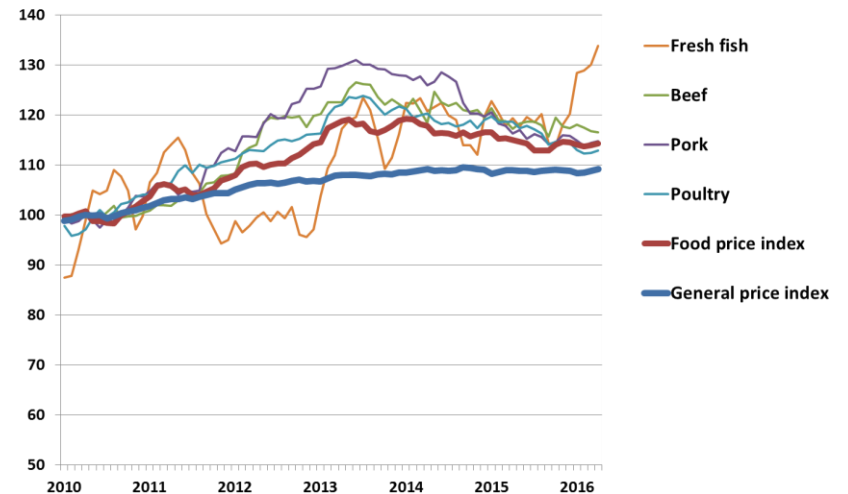
In the poor economic situation the importance of the price of food has increased. The drying up of profitable food exports to Russia increased supply and price pressure in the domestic market. In January 2015, retail shops began impressive price reduction campaigns where the prices of selected products were lowered. The tough price competition of grocery shops pushed the value of grocery trade sales below the level of the previous year for the first time since 1995. Increased competition is also reflected in the market share. The S Group, which campaigned intensively with price reductions, increased its market share. Lidl, however, still increased its market share the most.

Consumer food prices are down on 2014 levels. The decrease is expected to continue, but more slowly and it is forecast that it will halt in 2017. The trend differs from other consumer price developments, as the general price trend is expected to take an upward turn. Consumer meat prices are expected to fall more than other foods in 2016. Prices for fresh fish rose sharply at the end of 2015, which reduced the competitiveness of fish in relation to meat.

Market shares of grocery trade groups



Comparison of general price index with food prices



Views of enterprises

News from fish businesses

PANEL

- Ab Salmonfarm Oy
- Apetit Oyj
- Chipsters Oy
- Finnish Freshfish Oy
Kalamesta
- Heimon Kala Oy
- Hätälä Oy
- Kalaliike Eriksson Oy
- Kalarannan Vihannes Oy
- Kalaset Oy
- KalaValtanen Oy
- Lerøy Finland Oy
- Länsirannikon Kala Oy
- Martin Kala Oy
- Raisio Oyj
- V. Hukkanen Oy

Fish market year 2015

PANEL

- The price for salmon price remained relatively stable in the beginning of the year.
- In January, the retail trade began to reduce food prices
- In the summer, Ab Salmonfarm Oy began construction of a fishmeal plant in Kasnäs
- In September, Raisio Oyj launched Benella Rainbow Trout
- In October, Kalaliike V. Hukkanen Oy acquired Taimen Oy, which is the largest fish farming company in Finland.
- Fish farmers had optimal production conditions, but salmon prices were low during the autumn
- At the end of the year, salmon prices rose, while rainbow trout prices continued to fall > salmon and rainbow trout price differences were exceptionally large

Price of salmon expected to remain high

PANEL

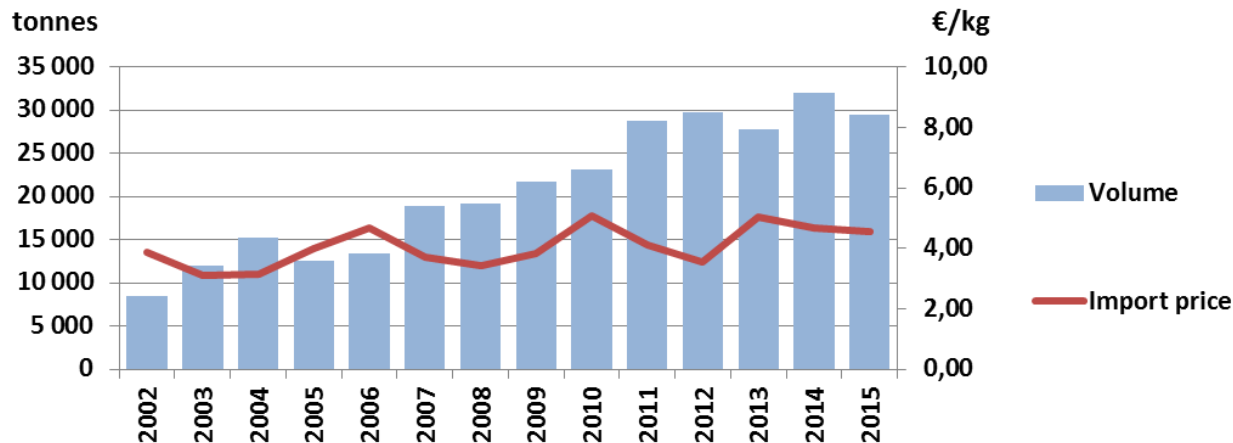
- Salmon prices during the first half of 2016 were exceptionally high
- Salmon prices are expected to remain high
 - Supply from Chile remained low on account of problems with production
 - Growth in Norwegian salmon production has slowed down
 - Global salmon supplies are growing more slowly than demand
- Imports of salmon to Russia have dried up
 - Russia's import embargoes had a brief impact on the salmon market, as Norway quickly found replacement markets in the United States and Asia.
 - The economic situation and the weak rouble are the main reasons for reducing demand for salmon in Russia.

High prices decreases demand for salmon in Finland

PANEL

- High prices have reduced demand for salmon in Finland and the growth of salmon consumption has halted, for the present at least
- The retail trade is lowering food prices and high prices have reduced campaigns focused on salmon
 - The campaigns switched during the autumn mainly to rainbow trout.

Import volumes and prices of Norwegian salmon



Rainbow trout grew well but price remained low

PANEL

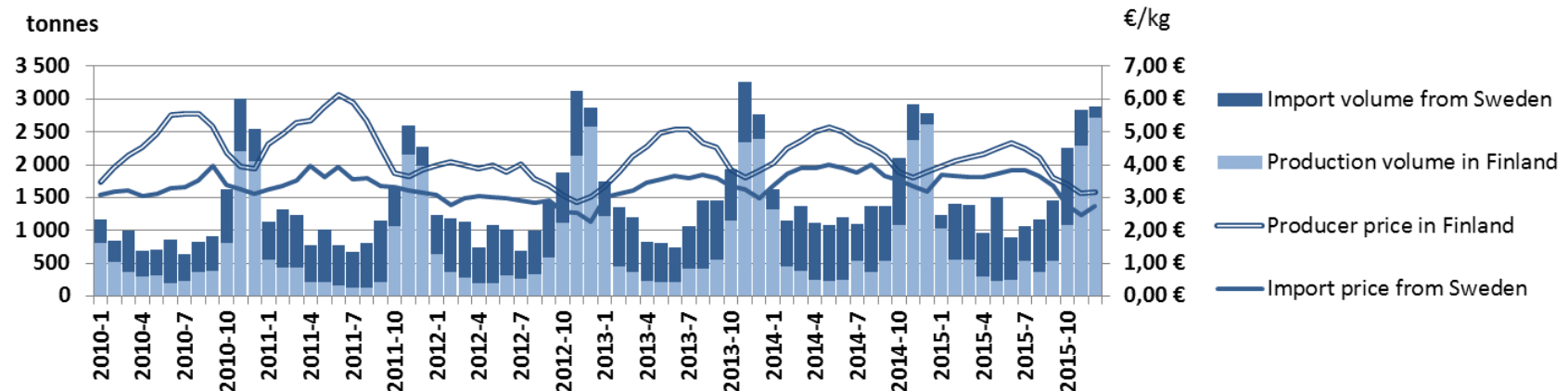
- In 2015, rainbow trout grew well and mortality remained low. The fish is suitable for processing in terms of quality and size.
- Many farmers seek profitability by means of roe production
 - During the period from October to December, 60% of production is slaughtered
- Russia's import embargo halted the export market for roe and the weakening of the rouble dried up the border trade
 - In 2015, the producer price for roe fell to a third of the previous peak prices in 2015
 - Roe was sold mainly to the domestic market
- Rainbow trout prices during the autumn were low
 - Producers began to gut well-grown fish early
 - In the autumn a large amount of roe-bearing fish was gutted
 - Farmers concentrating on food fish had to sell at a low price
 - Processors obtained raw material at a low price

Rainbow trout farmed in Sweden balances market

PANEL

- Swedish rainbow trout production supplements domestic supply
 - Guarantees availability of fresh fish year round
 - Supply decreases when the main slaughtering period begins in Finland
 - The quality of fish would improve if fish farmed and slaughtered in Sweden were also gutted in Sweden

Volumes and prices for domestically produced large rainbow trout and for large rainbow trout imported from Sweden



Added value to domestic rainbow trout through branding

PANEL

- Domestic, high-quality rainbow trout should be differentiated from other rainbow trout in order to provide fish production with added value
- Raisio Oyj began to develop a brand for farmed rainbow trout: Benella rainbow trout in September 2015:

- Use of the brand requires that farmers commit to high-quality feeding and handling requirements.
- The farmer will receive a better price
- Processing and the retail chain will ensure quality
- Retailed as trimmed fillet
- The health values of the fish will be emphasised to consumers



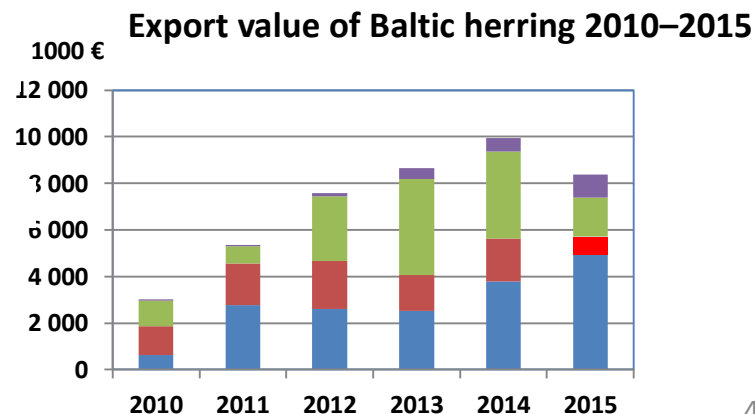
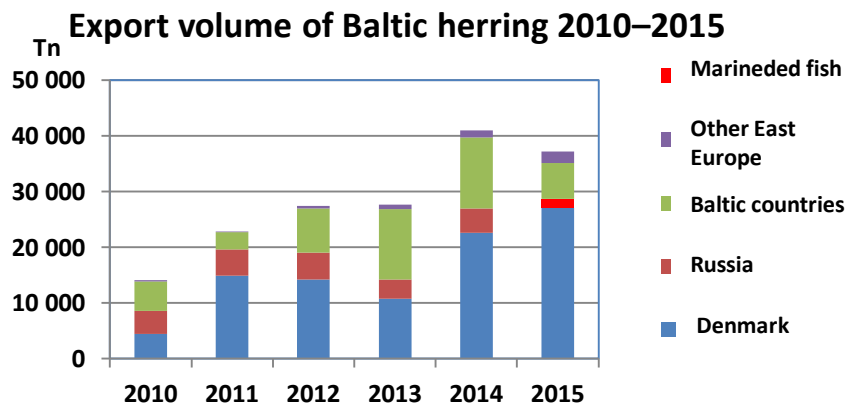
Baltic Blend feed in June 2016:

- Baltic Sea feed that recycles Baltic nutrients for the use of fish farmers
- The domestic fishmeal replaces imported meal, and creates jobs and wellbeing in the archipelago area
- Environmentally-friendly fish for consumers

Russia's import ban changed Baltic herring market

PANEL

- Domestic demand for Baltic herring for food is well established
- Russia's import embargo led to the collapse of imports of Baltic herring for food to Russia and the Baltic Area
 - A considerable proportion of the previous export volume had to be supplied at a lower price as feed for mink in Denmark
 - Some markets for frozen Baltic herring for food were found in Ukraine, Belarus and Moldova
 - Marinated Baltic herring began to be exported to Russia
 - Marinated Baltic herring is not included in the embargo on imports
 - The small size of Baltic herring limited production during the autumn



Demand for wild-caught fish in Finland

PANEL

- Demand for Baltic herring and vendace is well established
- Demand for pike-perch has remained good
 - Collecting areas have expanded to the east and to the north
- Generally a shortage of perch, but sharp variations in catches continue to cause marketing problems at times
- Demand for whitefish has recovered since the WWF's campaign in 2012
- Appreciation of pike is increasing and the fish is suitable for "steak" products when minced
- There would be demand for burbot during the winter, but supply has remained weak
- Roach and large bream could be more interesting raw materials if their quality and availability were adequate
- Export markets for smelt and cyprinids have weakened as a result of Russia's import embargo
 - Large, frozen smelt is exported to Estonia, Ukraine and Belarus, but the price is considerably lower
- The market for Canadian whitefish is shrinking
- Consumption of lutefisk is declining

Increased efficiency in use of fish

PANEL

- The large fish processors are continuously improving their production processes and intensifying utilisation of side streams
- Side streams from the fishing industry are utilised
 - As raw material for feed for fish or fur animals
 - In the manufacture of fish products and speciality products
 - As export products
- Development of added value products generates interest
- The domestic fishmeal plant will open up new opportunities
 - Will improve economic prospects of fishermen, as it will affect the price and demand of Baltic herring
 - The plant will open a new channel for fishing industry side streams
 - Will enable development of environmentally-friendly Baltic Sea feed and fish farming



Competition in fish trade tougher

PANEL

- Chain management has strengthened
 - Lower prices in retailing has tighten chain management
 - Large Horeca buyers are highly chain managed
 - Within retailing, the S Group has tight chain management – in K Group individual retailer has more decision-making power regarding purchases
 - Retailing reduces its waste through smaller purchase volumes
 - Campaigning with respect to farmed fish is steered by central distribution companies
 - If the price of salmon remains high, the central distribution companies will replace salmon with the cheaper rainbow trout
- Efficient competitive bidding is eroding margins in the fish trade
 - Competition between processors has tightened
 - Volume of imported processed products in retailing has increased
 - Weakens, in particular, the profitability of medium-sized companies
 - Flexibility is being sought through cooperation between companies and subcontracting
 - Partnership between companies will increase

Interest in export market is growing

PANEL

- Processors are investigating export possibilities
- Exports require sufficient and reliable raw material availability
- Greatest interest lies in exports of rainbow trout
- Supply is expected to grow in Finland and Sweden
- Rainbow trout products and rainbow trout roe are suitable for export
- Exports would enable stabilisation of domestic market demand
- Baltic herring and wild-caught fish during peak catches, other possible export fish
- Sweden, Baltic countries, northern Europe and Asia possible export countries

Environmental labelling would facilitate exports

PANEL

- Imported, eco-labelled (MSC) fish products will complement supply
- Demand for eco-labelled products will increase, as international actors in the trade and in Horeca sector require them
- In Finland, the weak state of the economy will restrict growth of the market
- Demand for ASC-labelled products and organic fish products is still very low
- The ASC label would facilitate rainbow trout exports, especially to central Europe
- The MSC label would facilitate Baltic herring exports to central Europe if the dioxin prohibition is removed
- Fish companies will certify their operations in order to be able to sell and export eco-labelled products.
- Products on the WWF's red list should not be offered to the customers



Traceability requirements

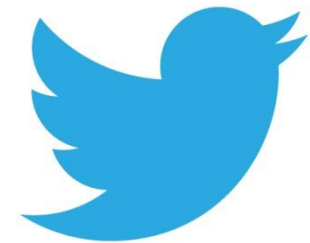
PANEL

- The new traceability requirements arouse considerable criticism
 - Food legislation is good, but the proposed traceability system is not suitable for Finnish conditions
 - Entrepreneurs are confused about the traceability provisions:
 - Interpretations of the authorities vary and valid instructions are lacking
 - Trading of domestic wild-caught fish will be more difficult, as fishermen's lots are very small and numerous lots are formed
 - "70 first-hand buyer's notifications are required for a 300-kilo fish lot purchased by a retailer"
 - "bureaucracy is removing fishermen from the market"
 - It will not give rise to a transaction or provide consumers with added value, but will increase costs
 - Competitiveness of domestic wild-caught fish will decrease
 - Fish wholesalers are able to trace fish with the current system too
 - Additional work will slow the transportation of fish to consumers and increase waste
 - Application to the fish trade's information system is incomplete

Social media can be utilised in consumer market

PANEL

- Companies operating in the consumer market, in particular, should monitor the views of consumers in social media
 - Many large companies have a person who actively monitors opinions expressed in social media and provides rapid feedback, as needed
 - This could also be part of a company's certification system requiring consumer feedback to be analysed
 - Many companies have their own Facebook pages
 - Information spreads rapidly and inexpensively in social media



Sources

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Further information:

For further information, please contact:

Jari Setälä, Researcher, jari.setala@luke.fi, tel: +358 29 532 7682

Kaija Saarni, Researcher, kaija.saarni@luke.fi, tel: +358 29 532 7682