THE EU FISH MARKET
2016 EDITION

HIGHLIGHTS
THE EU IN THE WORLD
EU MARKET SUPPLY
CONSUMPTION
TRADE
EU LANDINGS
AQUACULTURE PRODUCTION
PROCESSING

EUMOFA
European Market Observatory for Fisheries and Aquaculture Products

WWW.EUMOFA.EU
Scope

“The EU fish market” aims at providing an economic description of the whole European fisheries and aquaculture industry. It replies to questions such as what is produced/exported/imported, when and where, what is consumed, by whom and what are the main trends. Structural analysis allows a comprehensive view of the fisheries and aquaculture industries in Europe in comparison with other food industries.

This publication is one of the services delivered by the European Market Observatory for Fisheries and Aquaculture Products (EUMOFA).

This edition is based on data available as of July 2016.

More detailed and complementary data are available in the EUMOFA database: by species, place of sale, Member State, partner country. Data are updated daily.

EUMOFA, developed by the European Commission, represents one of the tools of the new Market Policy in the framework of the reform of the Common Fisheries Policy. [Regulation (EU) No 1379/2013 on the common organisation of the markets in fishery and aquaculture products, Article 42]. As a market intelligence tool, EUMOFA provides regular weekly indicators, monthly market trends and annual structural data along the supply chain. The database is based on data provided and validated by Member States and European institutions. It is available in all 24 EU languages.

EUMOFA website, publicly available as from April 2013, can be accessed at:

www.eumofa.eu
Methodological background

The report is mainly based on consolidated and exhaustive volume and value data collected and disseminated by EUMOFA at all stages of the supply chain.

**Main Sources of Data.**
EUMOFA, EUROSTAT, national administrations of the EU, Joint Research Centre – European Commission, FAO, OECD, Federation of European Aquaculture Producers (FEAP).

**Supply Balance Sheet.**
The supply balance sheet provides an estimate of the supply of fishery and aquaculture products available for human consumption at EU level. Catches targeted for fishmeal (industrial catches) are excluded. The calculation of the supply balance sheet is based on the equation:

\[
\text{Apparent consumption} = ([\text{total catches} - \text{industrial catches}] + \text{aquaculture} + \text{imports}) - \text{exports}
\]

The resulting figures should be considered as proxies of market consumption (i.e. apparent consumption).

**Self-sufficiency Rate.**
EU production / Apparent consumption of the EU market

**Expenditure for Fishery and Aquaculture Products.**
Expenditure data of this “EU fish market” are provided by EUROSTAT (for EU countries, see Charts 12, 13 and 15). These data are compiled basing on a common methodology elaborated within the “EUROSTAT – OECD PPP Programme” (http://www.oecd.org/std/prices-ppp/eurostat-oecd-methodologicalmanualonpurchasingpowerparitiesppps.htm).

In “The EU fish market” report, the “Nominal expenditure at national prices in euro (millions)” and the “Nominal expenditure per head at national prices in euros” have been used. The “expenditure” is taken as a component of the GDP and concerns the final consumption expenditures on goods and services consumed by individual households. Expenditure is provided in Purchasing Power Parities (PPPs) which are spatial deflators and currency converters that eliminate the effects of the differences in price levels between Member States/countries, thus allowing volume comparisons of GDP components and comparisons of price levels. For the countries outside the Euro-zone, Price Level Indices (PLIs) are used for harmonising different currencies in a single currency (euro in this case). PLIs are obtained as ratios between PPPs and current nominal exchange rates, therefore, PPPs and PLIs values coincide in the Euro-zone countries.

“Fishery and aquaculture products” is an aggregate of products, corresponding to COICOP 01.1.3, including fresh, chilled, frozen, preserved and processed seafood (http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LAST_NO M_DTL&StrNom=HICP_2000&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=EN).

**Live Weight Equivalent.**
Since EUROSTAT provides production data in live weight, import/export net volumes are converted by using Conversion Factors (CF) for the purpose of building a harmonized Supply balance sheet. Taking the example of CF for cod, or more specifically for the item whose CN8 code is 0304 44 10: this item corresponds to the following description: “Fresh or chilled fillets of cod ‘Gadus morhua, Gadus ogac, Gadus macrocephalus’ and of fish of the species "Boreogadus saida"”.. The CF is set at 2.85, representing an average of those found for skinned and boned fillets for this species in Eurostat/FAO publications. For the complete list of CFs used for the EUMOFA purposes, please refer to the Metadata published within the EUMOFA website at the link: http://www.eumofa.eu/documents/20178/24415/Metadata+2+DM+-+Annex+8+CF+per+CN8_%252707-%252714.pdf/7e98acec-a8cc-4223-9114-af64a670532.
Data for the household consumption of fresh fish products are provided by EUROPEAN Panel for 12 EU Member States. These data originate from representative household panels that record the details of every item purchased. Fresh fish species’ data monitored for each country are listed below.

- **Denmark** – cod, dab, mackerel, mussel mytilus ssp., other flounders, other halibuts, salmon, trout, unspecified products;
- **France** – cod, gilt-head seabream, hake, mackerel, monk, saithe (=coalfish), salmon, trout, whiting, unspecified products;
- **Germany** – carp, cod, herring, miscellaneous, shrimps, mussel mytilus spp., other freshwater fish, plaice, pollack, salmon, trout, unspecified products;
- **Hungary** – total fresh products;
- **Ireland** – cod, hake, mackerel, salmon, unspecified products;
- **Italy** – anchovy, clam, cod, cuttlefish, European seabass, gilt-head seabream, mussel mytilus spp., octopus, salmon, squid, unspecified products;
- **Netherlands** – cod, herring, mackerel, mussel mytilus spp., other cold-water shrimp, pangasius, plaice, salmon, shrimp Crangon spp., trout, unspecified products;
- **Poland** – carp, mackerel, salmon, trout, unspecified products;
- **Portugal** – clam, European seabass, gilt-head seabream, hake, mackerel, miscellaneous shrimps, octopus, salmon, sardine, scabbardfish, unspecified products;
- **Spain** – cod, European seabass, gilt-head seabream, hake, mackerel, miscellaneous tunas, monk, other flounders, salmon, sardine, unspecified products;
- **Sweden** – cod, European flounder, haddock, herring, other halibuts, other salmonids, pike-perch, salmon, unspecified products;
- **United Kingdom** – cod, European seabass, haddock, mackerel, miscellaneous tunas, plaice, pollack, salmon, sole, trout, unspecified products.

For the procedure of assessment of origin of imports and exports, please refer to the EUMOFA Metadata at the link: [http://www.eumofa.eu/documents/20178/24415/Metadata+3+-+DATA+ANALYSIS.pdf/b43e187e-9d9b-4d03-adbc-fede824c9b37](http://www.eumofa.eu/documents/20178/24415/Metadata+3+-+DATA+ANALYSIS.pdf/b43e187e-9d9b-4d03-adbc-fede824c9b37).

For the purpose of properly conducting an analysis on aquaculture production in the EU, EUROSTAT data have been integrated with data deriving from national sources, FAO and sector associations. This was necessary to deal with the fact that EUROSTAT lacks data for several Member States in several years.

In order to solve this issue, the following integrations have been carried out.

- **Austria**: 2012 and 2014 data were integrated with figures provided by FAO.
- **Belgium**: 2010-2014 data were integrated with figures provided by FAO.
- **Cyprus**: 2011 regarding gilthead seabream and the group “Other seabreams” were integrated with figures provided by FAO. Values were estimated by multiplying the volumes of each main commercial species to its average price (average calculated using the price corresponding to year-1 and year+1).
- **Denmark**: 2010 and 2013 values were estimated by multiplying the volumes of each main commercial species to its average price (average calculated using the price corresponding to year-1 and year+1) as provided by Danish AgriFish Agency. 2014 data were provided by FAO.
- **Estonia**: 2010, 2012 and 2014 data were integrated with figures provided by FAO.
- **Finland and Hungary**: 2014 data were provided by FAO.
France:
2010–2012 data for salmon and turbot were integrated with figures provided by FAO. 2013 volumes for salmon, sole and turbot were integrated using FEAP, respective values were estimated by multiplying the volumes of each main commercial species to its 2014 price. 2014 data were provided by FAO.

Germany:
2011 data were integrated with figures provided by the national source (DESTATIS). They refer to trout, carp, pike, pike-perch, eel, other freshwater fish and molluscs. Specifically as concerns molluse figures, since no details at species level is provided by DESTATIS, the aggregate amount was entirely assigned to the species “mussel”. In fact, mussel is the main mollusc farmed in Germany (oyster production is limited). Since DESTATIS does not report values for 2011, they have been estimated by multiplying the volumes to its price as for year-1 (namely, 2010). 2012 and 2013 data were integrated using FAO. 2014 data were provided by FAO.

Greece:
2010 figures referring to values were integrated with the ones provided by the national source (EL.STAT.). 2013 data were integrated using FAO.

Ireland and the United Kingdom:
2008 values were estimated by multiplying the volumes of each main commercial species to its average price (average calculated using the price corresponding to year-1 and year+1). 2014 data were integrated using FAO.

Latvia and Slovenia:
2014 data were integrated using FAO.

Malta:
2010 data regarding bluefin tuna were integrated using FAO.

Poland:
2010 data regarding carp and trout were integrated using Federation of European Aquaculture Producers (FEAP) figures. In the instances in which values were missing, 2012 prices (the only available in FEAP) were applied to 2010 and 2011 volumes in order to estimate homogeneous values. 2011 data regarding the group “Other freshwater species” were integrated using FAO.

Specifications on EU Landings Data

The following issues should be mentioned regarding data used for the “EU landings” chapter:

Portugal:
2014 figures are EUROSTAT provisional data
2014 data regarding ray were provided by the national source (DGRM).

Belgium, Denmark, Germany and Cyprus:
2014 data are EUROSTAT estimates

Netherlands:
2014 figures are EUROSTAT provisional data. It has also to be mentioned that almost all data reported for 2010, 2011 and 2012 are EUROSTAT estimates.

Ireland:
2013 and 2014 data regarding hake, and 2014 data regarding mackerel, were provided by the national source (SFPA).

Processing Data

Processing data are collected from the EUROSTAT PRODCOM database, where data are organised in a specific nomenclature (PRODCOM classification of manufactured goods). In order to make these data more user-friendly, the analysis elaborated in this report “The EU fish market” has aggregated PRODCOM fish-related products into Commodity Groups. Below an example of PRODCOM codes aggregated into the Commodity “Small pelagics”:

<table>
<thead>
<tr>
<th>CGs</th>
<th>PRODCOM CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Pelagics</td>
<td>10202450 Smoked herrings (including fillets)</td>
</tr>
<tr>
<td></td>
<td>10202455 Smoked herrings (including fillets, excluding heads, tails and maws)</td>
</tr>
</tbody>
</table>
10202520  Prepared or preserved herrings, whole or in pieces (excluding minced products and prepared meals and dishes)
10202530  Prepared or preserved sardines, sardinella, brisling and sprats, whole or in pieces (excluding minced products and prepared meals and dishes)
10202550  Prepared or preserved mackerel, whole or in pieces (excluding minced products and prepared meals and dishes)
10202560  Prepared or preserved anchovies, whole or in pieces (excluding minced products and prepared meals and dishes)

**Extra-EU trade.**  It encompasses all transactions between European Union (EU) Member States and countries outside the EU (non-member countries).

**Intra-EU trade.**  It encompasses all transactions declared by Member States of the European Union (EU) with one another. For the analysis of intra-EU trade, only exports have been taken into account. Actually, intra-EU trade as reported by EUROSTAT covers both arrivals (i.e. imports) and dispatches (i.e. exports). Because of different valuation principle (CIF > FOB), arrivals should be slightly higher than dispatches. This is one of the main reasons explaining asymmetries between import and export figures. In general, bilateral comparisons between MS of intra-EU flows have revealed major and persistent discrepancies. Therefore, comparisons dealing with intra-EU trade statistics and related results have to be taken into account cautiously and should consider the existence of these discrepancies. For more information, please visit EUROSTAT’s “Quality Report on International Trade Statistics”, at http://ec.europa.eu/eurostat/documents/3888793/6182577/KS-TC-14-009-EN-N.pdf.
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EU consumers spent 54 billion euro for buying fisheries and aquaculture products in 2015, reaching the highest amount ever recorded. With respect to 2014, the expenditure increased 3.2%, due to a general positive trend recorded in all Member States (excepted Greece).

The seafood supply in the EU grew by almost 650,000 tonnes between 2013 and 2014 (+4.5%). The main driver was internal production, which rose by 570,000 tonnes, mostly originating from fishing activities. The EU’s self-sufficiency improved, moving from 44.5% to 47.5%.

Per capita fish consumption per year increased to 25.5 kg, as EU consumers ate one kg of fish more than in 2013. The rise was more significant for farmed products (+6%) than for fisheries products (+2.7%). However, consumption in the EU market is dominated by products originating from fishing activities (75% of total consumption).

One of the most remarkable phenomena observed is the growing relevance of cod, whose per capita consumption increased 22% from 2012 to 2014. In 2015, the total household purchases of fresh cod amounted to EUR 1.4 billion, with the UK ranking first spending EUR over 600 million for it.

The EU is the largest trader of fishery and aquaculture products in the world in terms of value. In 2015, the trade flow amounted to EUR 49.3 billion and 13.8 million tonnes.

Fish alone represents almost 20% of the overall EUR 120 billion worth of food products imported by the EU. The trade balance deficit (exports minus imports) of 2015 was the largest ever, confirming the EU as a net importer of fisheries and aquaculture products. The value of imported fish grew 6% from 2014 and reached EUR 22.3 billion.

This was mainly determined by imports of cod, shrimps and salmon. For cod and shrimps, this rise took place in the context of significant price increases of 22% and 12%, respectively. In addition, a large 17% import price increase was recorded for other relevant groundfish species, namely Alaska pollock and hake. On the other hand, salmon price remained quite stable in 2015.

Imports from Iceland registered a 19% growth, making this country the 3rd largest EU supplier after Norway and China. Sales of cod and of fishmeal played a significant role in this rise.

In 2015, the EU exported less fisheries and aquaculture products in volume (-11%) compared with 2014, but their value rose to EUR 4.5 billion (+3%), the highest amount ever registered. This value increase was driven by exports of bluefin tuna from Spain and fishmeal from Denmark.
Almost half of the fish products trade within and outside the EU consists of exchanges between EU Member States. In 2015, intra-EU exports were 4 times higher than exports to extra-EU countries, and totalled the all-time peak of 6 million tonnes worth EUR 22.5 billion.

In 2014, the value of products landed in the EU was EUR 7.3 billion, 8% higher than its 10-year average. While in 2013 shrimps were the most valued species, hake surpassed them in 2014, thanks to a substantial increase registered by Spain and France.

In volume terms, EU landings totalled 4.5 million tonnes which was a 7-year peak. Over 40% of the total was represented by small pelagics group. However, its 10-year trend is downward, due to the growth of groundfish and tuna landed and to a decrease of small pelagics landings by more than a quarter.

The EU is the largest importer in the world. In 2015 its trade deficit reached EUR 17.8 billion, i.e. EUR 6 billion more than the United States deficit and EUR 7 billion more than the Japanese one. The EU deficit has been growing since 2009 and registered a significant 7% increase with respect to 2014, due to the growing imports of both frozen and fresh products.

Nevertheless, during 2009-2014 the EU self-sufficiency for seafood has been rising thanks to the increase of the internal production, which grew by 430,000 tonnes in the same period. Groundfish, small pelagics and other marine fish were the groups of products for which the EU has reported an improved self-sufficiency in this 6-year period.

Retail prices for fish and seafood products have been rising from 2010 to 2015, with the highest annual growth registered in 2011. Since then, the rate of increase has been shrinking every year.

Tuna was the most-consumed product in the EU, with a per capita consumption of 2.6 kg in 2014, followed by cod, whose consumption significantly increased.

The most consumed farmed species is salmon. It is also the species with the highest production value in the EU. Salmon ranked 3rd among the most consumed fish species in the EU and, for the first time, its consumption surpassed 2 kg per capita in 2014.

Mussel is the 2nd most consumed aquaculture species, followed by tropical shrimps, the latter being solely based on imports. In the Member States surrounding the Mediterranean, farmed seabass and seabream are higher on the list of most consumed species.

Despite a significant fall in its consumption from 2013 to 2014, herring was the most consumed small pelagic species in the EU (1.2 kg per capita).
Other trends and dynamics that notably impacted the EU market for fisheries and aquaculture products in 2015, were the continued import-ban imposed by Russia that contributed to the need of re-directing trade-flows previously going to Russia to either other export markets or internally within the EU.

Currency issues have impacted the market place to a large extent. As important driver behind both pricing trends and volume shift, there was the appreciation of the EUR against the Norwegian Krone (NOK), the United States dollar (USD) and the Chinese Yuan (CNY) rates which in 2015 reached the lowest level in more than a decade. Parallel to a growing importance in imports from Iceland, the EUR depreciated against the Icelandic króna (ISK).

During the first 7 months of 2016 the exchange rate trends seen in 2015 for NOK and ISK continued, with appreciation of EUR against the NOK (+9%) and depreciation compared with ISK (-5%). On the other hand, the EUR/USD exchange rate has remained unchanged in average.

From the beginning of 2016 to end July, the Pound Sterling (GBP) weakened compared with the EUR (-11%), affected by the EU referendum in June 2016. In the first 7 months of 2016, the GBP depreciated 6% against EUR, compared with the corresponding period of 2015.
1.1 Production

EU production volume has been constantly increasing since 2012. Between 2012 and 2014, volume increased due to a 19% increase in catches and a 4% increase in aquaculture. This amounted to a total of 6.15 million tonnes in 2014, which was an increase of 15% compared with 2012, when it amounted to 5.34 million tonnes.\(^1\)

During the same period, total world production increased 7%, moving from around 182 million tonnes to 195 million tonnes. A significant 50% increase in aquaculture production was registered in Indonesia, while in Thailand, it dropped 27%, due to an outbreak of early mortality syndrome (EMS) which hit shrimp farm production. In Peru, a total production drop of 25%, mainly due to the effects of El Niño, caused the country’s ranking for catches to slip. In 2013, Peru ranked fifth while the EU was sixth.

It is worth noting that 92% of world aquaculture production and 72% of world catches originate from Asia, mainly China, Indonesia and India.

In China the most important species produced are freshwater fish with 27 million tonnes, molluscs with 15 million tonnes and aquatic plants with 18 million tonnes. Since 2012, China has increased its freshwater fish production by 11%. Carp, the most important species it produces, accounts for 71% of the total freshwater fish.

In Indonesia, the most important species, aquatic plants, account for 49% of total production, followed by marine fish with 28% and freshwater fish with 16%. In India the most important species produced are freshwater fish with 5.6 million tonnes and marine

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1. In 2012 the EU Member States totalled 27, Croatia entered in 2013.
3. According to FAO *The State of the World Fishery and Aquaculture*, (p. 4) "Catches of anchoveta in Peru fell to 2.3 million tonnes in 2014 – half that of the previous year and the lowest level since the strong El Niño in 1998."
fish with 2.3 million tonnes. In 2014, 79% of freshwater fish products imported in the EU originated from Asia.

In America, the most important species produced are anchovy, Alaska pollock and herring, mainly in Peru, USA and Chile.

In Africa, total 2014 fish production amounted to around 11 million, of which 5.4 million was small pelagics. Sardine, anchovy and herring together accounted for 2.5 million tonnes while freshwater fish amounted to 4.5 million tonnes. Nile perch of Tanzania is the most imported freshwater fish species in the EU originated from Africa.
### Table 1

**World production in 2014 (1,000 tonnes)**

Source: EUROSTAT (for fishery EU-28), FAO (for extra-EU countries and EU aquaculture)

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fishery</td>
<td>Aquaculture</td>
<td>Total</td>
<td>Fishery</td>
<td>Aquaculture</td>
</tr>
<tr>
<td>China</td>
<td>16.425</td>
<td>53.943</td>
<td>70.368</td>
<td>38,7%</td>
<td>16.558</td>
</tr>
<tr>
<td>Indonesia</td>
<td>5.726</td>
<td>9.600</td>
<td>15.328</td>
<td>8,4%</td>
<td>6.056</td>
</tr>
<tr>
<td>India</td>
<td>4.872</td>
<td>4.214</td>
<td>9.086</td>
<td>5,0%</td>
<td>4.645</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>2.705</td>
<td>3.103</td>
<td>5.809</td>
<td>3,2%</td>
<td>2.804</td>
</tr>
<tr>
<td><strong>EU 28</strong></td>
<td><strong>4.104</strong></td>
<td><strong>1.236</strong></td>
<td><strong>5.340</strong></td>
<td><strong>2,9%</strong></td>
<td><strong>4.395</strong></td>
</tr>
<tr>
<td>USA</td>
<td>5.101</td>
<td>420</td>
<td>5.521</td>
<td>3,0%</td>
<td>5.153</td>
</tr>
<tr>
<td>Myanmar</td>
<td>3.579</td>
<td>888</td>
<td>4.468</td>
<td>2,5%</td>
<td>3.787</td>
</tr>
<tr>
<td>Japan</td>
<td>3.750</td>
<td>1.074</td>
<td>4.824</td>
<td>2,7%</td>
<td>3.741</td>
</tr>
<tr>
<td>Philippines</td>
<td>2.327</td>
<td>2.542</td>
<td>4.869</td>
<td>2,7%</td>
<td>2.335</td>
</tr>
<tr>
<td>Russia</td>
<td>4.338</td>
<td>146</td>
<td>4.485</td>
<td>2,5%</td>
<td>4.354</td>
</tr>
<tr>
<td>Chile</td>
<td>3.009</td>
<td>1.076</td>
<td>4.084</td>
<td>2,2%</td>
<td>2.289</td>
</tr>
<tr>
<td>Norway</td>
<td>2.921</td>
<td>1.321</td>
<td>3.612</td>
<td>2,0%</td>
<td>2.233</td>
</tr>
<tr>
<td>Peru</td>
<td>4.853</td>
<td>72</td>
<td>4.925</td>
<td>2,7%</td>
<td>5.876</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1.536</td>
<td>1.726</td>
<td>3.262</td>
<td>1,8%</td>
<td>1.550</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>1.677</td>
<td>1.509</td>
<td>3.186</td>
<td>1,8%</td>
<td>1.602</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.720</td>
<td>1.272</td>
<td>2.992</td>
<td>1,6%</td>
<td>1.825</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.481</td>
<td>635</td>
<td>2.116</td>
<td>1,2%</td>
<td>1.493</td>
</tr>
<tr>
<td>Other</td>
<td>22.289</td>
<td>5.265</td>
<td>27.554</td>
<td>15,2%</td>
<td>22.546</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91.785</strong></td>
<td><strong>90.043</strong></td>
<td><strong>181.827</strong></td>
<td><strong>100%</strong></td>
<td><strong>93.243</strong></td>
</tr>
</tbody>
</table>
The EU is the top trader of fishery and aquaculture products in the world in value. In 2015, total extra-EU trade (imports plus exports) amounted to EUR 26.81 billion in 2015, an increase of 6% from 2014. China’s trade value ranked second to the EU, with EUR 25.73 billion, a 13% increase from 2014. EU domestic consumption is mostly supplied by imports, especially from Norway with EUR 4.83 billion. In general, the main products imported in the EU are frozen or prepared meals. Shrimps, tuna, whitefish and fish-meal are the most imported products.

World consumption moved from 16.1 kg/per capita in 2001 to 19.7 in 2013, marking a 22% increase. In this period, Asia registered the highest percentage variation, with a 32% increase. In 2013, Europe and Asia increased per capita consumption by 2% and 8%, respectively, compared with 2011, while the rest of the world registered a decrease in 2013. In 2013, Oceania recorded the highest per capita consumption, despite a 6% decrease from 2011.
Chart 2
Main trade flows of fishery and aquaculture products in the world (2015)

Source: EUMOFA – GTIS
Chart 3

Consumption per capita in the world (kg, 2001 - 2013)

Source: FAO
The EU supply of fishery and aquaculture products grew by almost 650,000 tonnes in 2014 compared with the previous year. The main driver was internal production, which rose by 570,000 tonnes, mostly originating from fishing activities.

Apparent consumption increased by over 400,000 tonnes in 2014. Its structure had been changing since 2012, with cod gaining relevance as its consumption increased 25% from 2012 to 2014.

Both farmed and wild production increased during 2013-2014, farmed by 2% and wild by 11%.

Non-food catches have had a fluctuating trend since 2009, mostly related to changing sandeel quotas. When these quotas decreased 22% from 2013 to 2014, the 2014 catches dropped a comparative 26%.
2.1 EU self-sufficiency

The EU’s self-sufficiency increased during 2013-2014

The supply of the EU market is ensured by EU production and imports. The self-sufficiency rate – which is the ratio of EU production (catches and aquaculture) to total apparent consumption of the EU market – increased from 44.5% to 47.5% during 2013-2014, in spite of a consumption increase. It has to be noted that a significant part of this positive evolution was linked to the catch increase of species which are not totally landed in the EU (tuna, small pelagics). This means that the EU production was able to keep up with the rise of the internal demand in 2014. However, the top four species consumed in the EU – cod, tuna, salmon and Alaska pollock – represented 32% of the market, and were mostly or totally imported from third countries.

Chart 5
EU market trend and self-sufficiency rates
Source: EUMOFA based on elaboration of EUROSTAT data

Table 3
Self-sufficiency rate of most consumed products (2014)
Source: EUMOFA based on elaboration of EUROSTAT data

<table>
<thead>
<tr>
<th>Products</th>
<th>Self sufficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mackerel</td>
<td>124%</td>
</tr>
<tr>
<td>Herring</td>
<td>120%</td>
</tr>
<tr>
<td>Mussel</td>
<td>100%</td>
</tr>
<tr>
<td>Plaice</td>
<td>97%</td>
</tr>
<tr>
<td>Sole</td>
<td>92%</td>
</tr>
<tr>
<td>Sardine</td>
<td>91%</td>
</tr>
<tr>
<td>Trout</td>
<td>90%</td>
</tr>
<tr>
<td>Gilt-head seabream</td>
<td>90%</td>
</tr>
<tr>
<td>European seabass</td>
<td>86%</td>
</tr>
<tr>
<td>Monk</td>
<td>56%</td>
</tr>
<tr>
<td>Clam</td>
<td>49%</td>
</tr>
<tr>
<td>Hake</td>
<td>37%</td>
</tr>
<tr>
<td>Tuna</td>
<td>34%</td>
</tr>
<tr>
<td>Scallop</td>
<td>27%</td>
</tr>
<tr>
<td>Squid</td>
<td>20%</td>
</tr>
<tr>
<td>Salmon</td>
<td>18%</td>
</tr>
<tr>
<td>Cod</td>
<td>12%</td>
</tr>
<tr>
<td>Tropical shrimp</td>
<td>4%</td>
</tr>
<tr>
<td>Freshwater catfish</td>
<td>3%</td>
</tr>
<tr>
<td>Alaska pollock</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 4
Self-sufficiency rate by commodity group
Source: EUMOFA based on elaboration of EUROSTAT data

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bivalves and other molluscs and aquatic invertebrates</td>
<td>70%</td>
<td>65%</td>
<td>68%</td>
<td>62%</td>
<td>63%</td>
<td>60%</td>
<td>60%</td>
<td>64%</td>
<td>62%</td>
<td>61%</td>
</tr>
<tr>
<td>Cephalopods</td>
<td>16%</td>
<td>16%</td>
<td>18%</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
<td>18%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>23%</td>
<td>23%</td>
<td>24%</td>
<td>23%</td>
<td>23%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Flat fish</td>
<td>89%</td>
<td>83%</td>
<td>87%</td>
<td>93%</td>
<td>93%</td>
<td>95%</td>
<td>98%</td>
<td>77%</td>
<td>79%</td>
<td>75%</td>
</tr>
<tr>
<td>Freshwater fish</td>
<td>27%</td>
<td>20%</td>
<td>18%</td>
<td>26%</td>
<td>25%</td>
<td>22%</td>
<td>17%</td>
<td>17%</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>Groundfish</td>
<td>30%</td>
<td>29%</td>
<td>27%</td>
<td>24%</td>
<td>22%</td>
<td>22%</td>
<td>18%</td>
<td>21%</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td>Other marine fish</td>
<td>52%</td>
<td>49%</td>
<td>51%</td>
<td>51%</td>
<td>57%</td>
<td>61%</td>
<td>60%</td>
<td>70%</td>
<td>69%</td>
<td>66%</td>
</tr>
<tr>
<td>Salmonids</td>
<td>37%</td>
<td>36%</td>
<td>34%</td>
<td>34%</td>
<td>35%</td>
<td>35%</td>
<td>33%</td>
<td>31%</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>Small pelagics</td>
<td>122%</td>
<td>110%</td>
<td>103%</td>
<td>103%</td>
<td>100%</td>
<td>106%</td>
<td>104%</td>
<td>109%</td>
<td>106%</td>
<td>124%</td>
</tr>
<tr>
<td>Tuna and tuna-like species</td>
<td>32%</td>
<td>26%</td>
<td>24%</td>
<td>35%</td>
<td>24%</td>
<td>21%</td>
<td>26%</td>
<td>26%</td>
<td>29%</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>50,2%</td>
<td>46,2%</td>
<td>46,8%</td>
<td>45,0%</td>
<td>44,6%</td>
<td>43,5%</td>
<td>43,1%</td>
<td>44,6%</td>
<td>44,5%</td>
<td>47,5%</td>
</tr>
</tbody>
</table>

Small pelagics

This category contributes the most to the overall EU self-sufficiency. In 2014, its production reached its 7-year peak at 23 million tonnes, increasing by 15% over 2013 and leading to a self-sufficiency peak. However, demand for these products recorded a decline, with their apparent consumption falling by more than 30,000 tonnes.

Groundfish

In 2011, the self-sufficiency of groundfish plummeted due to increasing imports. It remained low in 2012 and 2013, but recovered in 2014, reaching 25%. This was due to a 130,000-tonne rise in catches, mostly of blue whiting and hake.

Cod, on the other hand, has its internal demand predominantly met through imports: in 2014, only 10% of the total supply was produced in the EU. Cod, together with Alaska pollock, which is not produced in the EU at all, significantly reduces the overall self-sufficiency of this commodity group.
EU self-sufficiency for salmonids started to decrease in 2011, when imports grew by 34,500 tonnes and production fell by 25,400 tonnes, mainly related to a decrease of farmed trout. Imports grew 26% between 2011 and 2014, which reduced EU self-sufficiency to 30% in 2014, the lowest level of the last 11 years.

Salmon alone has a remarkable impact on the low self-sufficiency of the whole group of products. Trout, however, has an opposite impact, with a high self-sufficiency of 90% in both 2013 and 2014.

EU self-sufficiency for flat fish plummeted over 20% in 2012 due to a substantial growth in imports of frozen fillets of flatfish from China (CN-8 code 03033970). Although growth of catches generated a slight increase of self-sufficiency in 2013, it fell again during 2013-2014 reaching 75%, due to both a 14,000-tonne increase in imports and a 15,300-tonne decrease in catches.

However, the demand for plaice and sole, the most consumed species of this commodity group, is mostly satisfied through internal production. The self-sufficiency for plaice increased from 96% to 97% in 2014, due to both increasing catches and lowered demand. As for sole, growing imports meant the EU self-sufficiency fell from 95% to 92%.
In 2014, other marine fish registered a 69% to 66% decline in self-sufficiency, due to a 68,000-tonne catch decrease. Within this category, the self-sufficiency levels vary for the most consumed species.

For gilt-head seabream and European seabass, self-sufficiency was at 90% and 86% respectively in 2014, with both showing declines since 2013. The decline of the gilt-head seabream was a consequence of imports, mainly from Turkey, doubling from 7,700 to 13,400 tonnes, and aquaculture production dropping from 92,600 to 86,400 tonnes. The European seabass drop was almost entirely due to imports increasing from 11,500 to 13,800 tonnes. Monk’s self-sufficiency increased from 53% to 56%, thanks to imports reduced by 7% and production increasing 2%.

In 2014, despite recovering from the 2013 production shrinkage that concerned mussels, EU self-sufficiency for this commodity fell to 61%. Even though mussel demand is entirely covered by EU production, the commodity group fell due to a 50,000-tonne growth in imports of other molluscs.
2.2 Supply balance and apparent consumption

Data in this table may not align with data found currently on the EUMOFA website, which is constantly updated.

In order to have a harmonized Supply balance sheet, import/export net volumes are converted to live weight equivalent by using conversion factors.

During 2013-2014, apparent consumption of fishery and aquaculture products in the EU totalled almost 13 million tonnes, registering a boost of 409,000 tonnes. Per capita fish consumption increased to 25.53 kg, 3.5% higher than in 2013. The rise was more significant for farmed products, which registered a 6% rise in consumption, while consumption of wild fish increased 2.7%. Nevertheless, consumption in the EU market is dominated by products originating from fishing activities, which represents three-fourths of the total. In 2014, they accounted for 19.05 kg of the per capita consumption, while 6.48 kg were from aquaculture. The aquaculture origin prevails in three commodity groups: salmonids, bivalves and freshwater fish.
In 2015, the EU household expenditure for fishery and aquaculture products totalled around EUR 54 billion. This represented a 3.2% increase from 2014, due to a generally positive trend recorded in all Member States with the exception of Greece. The UK recorded the highest increase from 2014 to 2015, with Italy, Spain and France also registering the highest expenditures for fishery and aquaculture products.

Portugal maintained the highest per capita household expenditure, recording EUR 311 in 2015, which was three times the EU average, and represented an increase of 49% since 2000. Central and Eastern European Member States registered minor expenditures.
Among the EU Member States, Portugal registers the highest per capita consumption of fish and seafood products, although it contracted slightly – from 57.5 kg in 2001 to 55.3 kg in 2014. Nonetheless, in 2014 the Portuguese consumed 30 kg per capita more than the EU average.

The Member States with per capita consumption above the EU average, with the exception of Portugal and Latvia, registered an overall positive trend in 2014.
Albeit at a lower rate than meat and other food, the household expenditure for fishery and aquaculture products in the EU increased from 2010, moving from EUR 51.9 billion in 2010 to EUR 53.9 billion in 2015, with a 3% increase from 2014 to 2015. In 2015, the EU expenditure for meat was EUR 220 billion. Italy, Spain and France have maintained their traditional expenditure habits for fishery and aquaculture products. In 2015, Italy recorded the highest amount in the EU with EUR 10.3 billion, marking a 5% increase from 2010. If we look at the ratio between meat and fish, Spain’s expenditure for meat was twice as high as its expenditure for fish and seafood. In France the expenditure for fish and seafood was more than one-fifth that of meat. In Italy, expenditure for fish products was around one-third that of meat.

Between 2010 and 2013, fish, meat and food consumer prices increased at the same rate. However, since 2013, food and meat prices have slightly decreased, while fish prices have continued their upward trend.
Consumer prices for fish and seafood products have been rising during the last six years, with the most significant growth registered between 2010 and 2011. Although the increase has continued, since 2011, the rate of increase has decreased every year.

The price increase slowed significantly for meat and, to a lesser extent, for fish in 2014, but 2015 registered a stagnation for food prices in general.

![Table 6](image)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>+1,0%</td>
<td>+3,2%</td>
<td>+2,9%</td>
<td>+2,8%</td>
<td>-0,2%</td>
<td>0,0%</td>
<td>+9%</td>
</tr>
<tr>
<td>Meat</td>
<td>-0,1%</td>
<td>+2,8%</td>
<td>+3,9%</td>
<td>+2,8%</td>
<td>+0,2%</td>
<td>-1,0%</td>
<td>+9%</td>
</tr>
<tr>
<td>Fish and seafood</td>
<td>+1,8%</td>
<td>+4,3%</td>
<td>+3,2%</td>
<td>+1,9%</td>
<td>+1,6%</td>
<td>+1,1%</td>
<td>+13%</td>
</tr>
</tbody>
</table>

Consumer prices for fish and seafood products have been rising during the last six years, with the most significant growth registered between 2010 and 2011. Although the increase has continued, since 2011, the rate of increase has decreased every year.

3.3 Apparent consumption

![Table 7](image)

<table>
<thead>
<tr>
<th>Products</th>
<th>Per capita (kg)</th>
<th>% wild</th>
<th>% farmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuna</td>
<td>2,58</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Cod</td>
<td>2,40</td>
<td>99%</td>
<td>1%</td>
</tr>
<tr>
<td>Salmon</td>
<td>2,09</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Alaska pollock</td>
<td>1,58</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Mussels</td>
<td>1,27</td>
<td>8%</td>
<td>92%</td>
</tr>
<tr>
<td>Herring</td>
<td>1,20</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Mackerel</td>
<td>1,12</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Hake</td>
<td>1,00</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Squid</td>
<td>0,74</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Tropical shrimp</td>
<td>0,69</td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td>Sardine</td>
<td>0,65</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Freshwater catfish</td>
<td>0,60</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Surimi</td>
<td>0,56</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Trout</td>
<td>0,42</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Clam</td>
<td>0,33</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Other (82 species)</td>
<td>8,30</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25,53</strong></td>
<td><strong>75%</strong></td>
<td><strong>25%</strong></td>
</tr>
</tbody>
</table>

Tuna is the species mostly consumed in the EU

The 15 species listed in Table 7 were responsible for 69% of total apparent consumption of captured and farmed products.

Of them, ten were consumed more in 2014 than in 2013, and the total EU apparent consumption increased by 3%.

Compared with 2013, mackerel, cod and mussel registered the highest increases in 2014 with 40%, 9% and 16%, respectively. On the other hand, herring, with a drop of 22%, registered the strongest decrease in 2014 with respect to 2013.
In 2014, the most consumed small pelagics were herring, mackerel and sardine. Herring dropped by 22%, mackerel registered a significant 40% increase, while sardine showed a slight decrease of 3%.

The apparent consumption of herring diminished from 2013, mainly due to decreased catches in Denmark, the Netherlands and Germany, the three Member States that represented 38% of the total volume of herring caught in the EU waters in 2014. The apparent consumption of mackerel grew significantly, mainly due to increased catches in the United Kingdom, Ireland and the Netherlands of 76%, 45% and 54%, respectively. Sardine consumption decreased, due to diminished catches in Portugal and France of 47% and 7%, respectively, while imports augmented as a consequence of Portugal’s need to complement its own supply, which has been in sharp decline due to the conservation measures implemented.
The most consumed groundfish species in 2014 were cod, Alaska pollock and hake.

After a drop in cod consumption in 2005-2008 – with 2008 registering the lowest amount at 1.69 kg per capita – the consumption of cod followed an upward trend, increasing to 2.40 kg per capita in 2014 for an 18% increase from 2005. Cod remained the most consumed species in the EU since 2013.

Since 2005, consumption of Alaska pollock and hake has not followed the same trend as cod: hake consumption has slightly decreased and Alaska pollock has remained almost stable.

In 2014, the apparent consumption of mussels increased by 13% from 2013, mainly due to fostered production increasing 36% in Spain, which is the most important EU farmer of mussels. The EU consumption of mussels registered a slightly fluctuating trend from 2005 to 2014, with the apparent consumption moving from 1.36 kg per capita in 2005 to 1.27 kg per capita in 2014.

The consumption of scallop registered in 2014 was almost at the same level as in 2005. Its peak of 0.63 kg per capita was registered in 2010, and a 4% decrease was registered between 2013 and 2014, due to reduced catches in the United Kingdom and France of 11% and 29%, respectively. Since 2005, consumption of clam has remained stable at 0.35 kg per capita on average.
With 2.58 kg per capita, tuna (canned) remained quite stable from 2013 but reported a 16% increase from 2012, when it had the lowest amount recorded. Canned tuna continued to represent the most important product in terms of consumption in 2014.

Apparent consumption of salmon accounted for 2.09 kg per capita, a 9% and 38% increase from 2013 and 2005, respectively. Salmon is mainly consumed fresh or smoked.

Between 2010 and 2014, the apparent consumption of freshwater catfish (mainly pangasius) showed a significant decline. The EU showed a 38% decrease in imports, from 486,000 tonnes in 2010 to almost 300,000 tonnes in 2014, due to falling demand, in particular in the main consuming Member States: Spain, the Netherlands and Germany which had decreased by 35%, 42% and 58%, respectively.

The household consumption of fresh fish products is analysed among 12 EU Member States, which represent 87% of total fishery and aquaculture products expenditure in the EU. After the stagnation of fresh consumption between 2013 and 2014, an overall clearly positive trend was observed between 2014 and 2015, with significant increases in most countries.
In 2015, the main commercial species with the highest consumption value in the EU were salmon, cod, hake and mackerel, which combined covered 33% of the total EU fresh fish consumption.

**SALMON** – The UK is the largest consumer of salmon products in absolute terms. The UK, together with Spain and France are responsible for 71% of the total fresh consumption value, with EUR 1,05 billion, EUR 502 million and EUR 376 million, respectively. Since 2014, the consumption of salmon has increased in value and volume by 19% and 17%, respectively.
COD – Total household purchases of cod amounted to EUR 1.4 billion. The UK ranked first, with EUR 608 million, followed by France with EUR 322 million, Spain with EUR 218 million and Italy with EUR 137 million. From 2014, Spain and France decreased the consumption of cod in value, by -5% and -3% respectively, and volume, by -8% and -8% respectively, while the UK significantly increased by 12% and 22%, respectively.

HAKE – Hake is the most important species consumed in Spain with EUR 779 million. France and Portugal follow at distance, with EUR 43 million and EUR 30 million, respectively. From 2014, the total consumption of hake products registered slight decreases of 2% value and 4% volume.

Mackerel – The UK, Spain and Poland, with mackerel consumption of EUR 91 million, EUR 75 million and EUR 51 million, respectively - accounted for around 75% of the EU’s total consumption of EUR 290 million. From 2014, mackerel consumption registered slight decreases in both value and volume.
Among the 12 Member States surveyed, Spain, Italy, the UK and France were the most important, covering 85.7% of the total EU fresh fish consumption in volume and 85.2% in value.

Among the EU Member States, Spain ranked first in both volume and value. In value, in 2015, the most important species consumed were hake, salmon, sardine, cod and flounder, accounting together for 38% of the total fresh fish consumed. In terms of volume, these species accounted together for 43%.

In Spain, total consumption slightly increased in value while decreasing 3% in volume between 2014 and 2015. Since 2013, hake consumption has decreased in both volume and value, but remains by far the main species consumed in Spain.
During the same period, the consumption of salmon registered the most significant increments, increasing 39% in value and 24% in volume. In 2015, salmon consumption registered EUR 502 million for 58,000 tonnes, increases of 17% and 20%, respectively, from 2014.

Sardine, flounder and cod have registered negative trends from 2014.

In 2015, Italy ranked second in volume of fresh fish with 331,000 tonnes, but third in value with EUR 2.8 billion, after the United Kingdom. The most important species consumed in value were gilt-head seabream, octopus, squid, European seabass and cod, which covered a combined 30% of total fish consumed. In volume terms, mussel is the main species consumed.

Between 2014 and 2015, the Italian consumption of the main species registered a positive trend of 4% in value and 3% in volume. However, since 2012, Italian fish consumption has decreased by 10% in value but increased by 5% in volume.

In 2015, the most important species consumed in the United Kingdom were salmon, cod, haddock, pollack and mackerel, covering together around 62% of value and 63% of volume of the total fresh species consumed by household in the UK.
Between 2014 and 2015, the UK increased its fish consumption by 19% in value and 5% in volume. Since 2012, salmon and cod consumption registered the most significant growth in value and in volume. In 2015, pollack consumption decreased in value and in volume while haddock increased and mackerel stood flat.

Among the EU Member States, France ranked fourth with value of EUR 2,34 billion and volume of 226,000 tonnes. In 2015, the most important species consumed fresh in value were salmon, cod, saithe, monk and trout.

In 2015, the consumption of fish species remained stable in value and in volume.

Among the main species consumed fresh, salmon and cod are clearly predominant, in value and in volume. Salmon consumption increased in value and in volume from 2014 but decreased by 8% in value and 24% in volume from 2012.

The analysis confirms the propensity to consume a larger variety of fish species in the major southern countries (Spain, Italy and France), while the range of species is more limited in the UK, where salmon
accounted for 92% of the total fish consumed.

**Denmark** – In 2015, a slight decrease in total consumption was due, in part, to a slight decrease in salmon, the main species.

**Germany** – the consumption of fresh products is usually not high in Germany where consumers prefer processed fish (frozen, smoked, marinated, canned). However, in 2015, total fish consumed amounted to EUR 880 million in value. The main fresh products consumed are salmon and cod. From 2014, Germany significantly augmented its fish consumption, with a 15% increase in value and 18% increase in volume.

**Hungary** – the household consumption of fresh fish products has decreased in volume but increased in value since 2013.

**Ireland** – from 2014, the consumption of fresh products has increased by 21% in terms of value. The most consumed species, salmon and cod, together account for 60% of the total consumption of fresh fish products.

**Poland** – the consumption of fresh fish increased 7% from 2014 and remains on an upward trend. Salmon is the most consumed fresh species, but freshwater species, trout and carp, have also registered significant increases since 2012.

**Portugal** – the household consumption of fresh products registered a 10% increase in value from 2014, mainly due to salmon, miscellaneous shrimps and European seabass, which represented together 27% of the total fresh fish consumed.

**Sweden** – the total consumption of fresh products, mainly salmon and cod, increased 11% over 2014.

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**3.5 Out-of-home consumption**

The fisheries and aquaculture industry supplies fish and seafood through different distribution channels: retail, which includes fishmongers and large-scale retail (LSR); foodservice, which includes catering and commercial restaurants; and institutional, which includes schools, canteens, hospitals and prisons.

France, Germany, Italy, Spain and the UK account for 72% of the total out-of-home EU expenditure for fish and seafood products in the EU.
In 2015, retail represented the main distribution channel for fish and seafood products in France, Germany, Italy, Spain and the UK.

In absolute terms and through the retail segment, Spain registered the highest consumption with 929,000 tonnes. Looking at the categories of products (finfish, crustaceans, molluscs and cephalopods), finfish products are obviously the mostly consumed among the 5 Member States and, in fact, account for 88% of fishery products sold through retail in Germany and the UK. Spain has highest consumption of crustaceans with 126,000 tonnes, followed by the UK with 43,000 tonnes, while France consumed 95,000 tonnes of molluscs and cephalopods, registering the highest consumption of this category.

Since 2010, the supply of fish products through retail decreased in all the top 5 EU Member States, except in the UK, which increased its supply of fish products through retail by 16% in the period 2010-2015.

Among the 5 EU Member States, the UK registered the highest amount of fish consumption through its foodservice segment, due to the specific importance of its “fish & chips” shops.

The institutional segment remained the lowest outlet for supplying fish and seafood products.
3.6 Consumption and production of organic fish and seafood

Since 2012, the consumption of organic fish and seafood products has been constantly increasing, registering almost 40,000 tonnes in 2015. In absolute terms, the UK leads the main consumer countries of organic fish, with more than 16,000 tonnes of products consumed with organic production methods.

Production and consumption of organic fish and seafood still represent a niche and new market in the EU despite growing demand for organic aquaculture products in the last years.

The most important organic species consumed include salmon, trout and carp, as well as seabass, seabream and mussels.

The EU demand for organic fish is higher than its production, which focuses mainly on salmon and to a lesser extent on trout, seabass/seabream, carp and mussel.

Imports are a significant part of the EU supply, particularly of shrimps imported from Ecuador, Madagascar, Bangladesh, Thailand, Indonesia and Vietnam; tilapia from Central America; and pangasius from Viet Nam.

There are 46 denominations registered as geographical indications (GIs) and traditional specialities guaranteed (TSG) in the seafood sector. The most relevant Member States are the United Kingdom (10 products), Germany (7 products), France, Italy and Spain (5 products each). Three GIs are produced in extra-EU countries, namely China, Norway and Viet Nam.

Five products have been registered since October 2015:

- TSG Hollandse Maatjesharing, Hollandse Nieuwe and Holländischer Matjes (October 2015): processed herring from the Netherlands;
- PGI Oberlausitzer Biokarpfen (November 2015): organic carp

On average, in the main EU consumer countries, 1% of fish and seafood consumption originates from organic production

3.7 Geographical indications and traditional specialities guaranteed

There are 46 denominations registered as geographical indications (GIs) and traditional specialities guaranteed (TSG) in the seafood sector. The most relevant Member States are the United Kingdom (10 products), Germany (7 products), France, Italy and Spain (5 products each). Three GIs are produced in extra-EU countries, namely China, Norway and Viet Nam.

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- PGI Oberlausitzer Biokarpfen (November 2015): organic carp

**Note:**
- “CBI product factsheet: frozen organic seafood in Europe” - CBI
- “CBI product factsheet: frozen organic seafood in Europe” - CBI
produced in Saxony, Germany, and sold live, slaughtered or processed;

- PDO Conwy mussels (June 2016): wild mussel caught in an estuary in the northern Wales;

- PGI Mojama de Barbate (November 2015) and PGI Mojama de Isla Cristina (February 2016): cured tuna loin from Andalusia.

Almost two-thirds of the products are protected designations of origin (30), 28% are protected geographical indications (13) and 7% are traditional specialities guaranteed (3).

Among the 46 products registered, 54% are fishery products and 46% are aquaculture products. Fishery products are mainly sold processed, with 68% of the denominations for fishery products concerning totally or partially processed products. As for farmed products, 71% are sold unprocessed. Processed products cover a wide range of processing methods: smoked, cured, dried, cooked and canned, including fish roes and fish sauce.

Main species covered by GIs and TSGs include carp (8 products, notably in Germany, Czech Republic and Poland), mussels (5 products in France, Italy, Spain and the UK), anchovy, cod, oyster, salmon, tuna and vendace (3 products each). Twelve other species are covered by GIs or TSGs. Among the 46 denominations, 76% cover finfish (35), 22% molluscs (10) and 2% crustaceans (1).
EU trade, comprising extra-EU imports and exports, and intra-EU exchanges, increased steadily from 2009 to 2015. In 2015, the trade flow amounted to EUR 49.3 billion and 13.8 million tonnes. While volumes remained stable compared with 2014, values rose by almost EUR 3 billion, an increase of 6%.

In 2015, exchanges between EU Member States (intra-EU) and EU imports from third countries (extra-EU) both contributed to the overall growth in trade value. Intra-EU exchanges increased by EUR 1.48 billion and extra-EU import values increased by EUR 1.31 billion in 2015, as compared with 2014.

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7 2013, 2014 and 2015 data are at EU-28 level, as they include Croatia among reporting countries.
Chart 32
Most relevant extra-EU trade flows (2015, in value)
Source: EUMOFA based on elaboration of EUROSTAT data
Chart 33

Most relevant extra-EU trade flows by Member States (2015, in value)

Source: EUMOFA based on elaboration of EUROSTAT data
The EU trade balance deficit (exports minus imports) of 2015 was the largest ever, confirming the EU as a net importer of fisheries and aquaculture products.

The EU deficit, which had been rising since 2009, finally reached EUR 17.8 billion in 2015. This represented a EUR 1.17 billion, or 7%, increase compared with 2014.

The deficit increase was mainly due to the growing imports of frozen and fresh products between 2014 and 2015, with frozen peaking at EUR 10.73 billion and fresh peaking at EUR 5.49 billion. The growth of frozen products in 2014 came after two years of declines. As for fresh products, the growing trend has been continuing since 2012.

The overall extra-EU imports growth reflected significant increases in the top six EU destinations: Spain (+EUR 341 million), Sweden (+EUR 371 million), the United Kingdom (+EUR 167 million), Denmark (+EUR 117 million), the Netherlands (+EUR 147 million) and Italy (+EUR 80 million).

Exchanges between Member States are mostly of fresh fish which accounted for 39% of total value in both 2014 and 2015. However, almost half of the products imported from extra-EU countries are frozen.
4.2 Comparison between imports of fish and meat

Fish represents almost 20% of the overall EUR 120 billion worth of food products imported by the EU. Chart 35 compares the values of imported fish and meat in the EU, from 2006 to 2015. The grey line represents the evolution of the ratio between imported fish value and meat.

During this decade, the EU imports of fish had an average annual growth rate of 3.5%, while meat imports rose by 2% on average. In 2015, the ratio between imported fish value and meat was 4.21, meaning the EU imported over 4 times more fish than meat.

4.3 Extra-EU imports

Extra-EU imports of fisheries and aquaculture products touched their decade value peak in 2015, reaching EUR 22.3 billion. This amount was more than double the EUR 9.8 billion value of the EU’s wine exports. Wine is one of the products for which the EU holds most of its trade competitiveness.

In 2015, the value of imported fish grew more than EUR 1 billion, a 6% increase from 2014. However, in the same period, volumes fell by 138,000 tonnes, reaching 5.8 million tonnes.
The value growth in 2015 was mainly determined by imports of cod, shrimps and salmon, which together showed an increase of almost EUR 650 million. For cod and shrimps, this rise took place despite significant price increases of 22% and 12%, respectively. Both were mostly imported frozen. On the other hand, salmon was almost entirely sold fresh, and its price was stable between 2014 and 2015.

Chart 37 illustrates the trend in of average prices for the 5 top-valued import categories during 2010-2015.
Norway is the main source of EU fish-product imports. In 2015, EU imports from Norway reached 1.5 million tonnes worth EUR 5.3 billion, their highest ever import amount. This represented an increase of 84,600 tonnes and EUR 448 million over 2014. Fresh salmon, which represented 70% of 2015 values of imports from Norway, had a value of EUR 3.7 billion.

Imports from China decreased by 6% between 2014 and 2015, from 513,000 to 480,700 tonnes. However, their values registered growth, reaching over EUR 1.5 billion.

Values of EU imports from Iceland grew by a strong 19% in 2015, with a parallel 19% increase in volume, which reached 935,500 tonnes worth EUR 1.1 billion. This, accompanied by a decline of imports from Ecuador, boosted Iceland to rank third among extra-EU countries of origin. Iceland's increase was based on its sale of fishmeal to Germany, Denmark and the UK. In the case of Germany, Iceland's increase balanced the 90,000-tonne decrease in fishmeal Germany purchased from Peru. Peruvian fishmeal production and exports had dropped with the cancellation of Peru’s second anchovy fishing season in 2014. In addition, China imported the biggest share of Peruvian fishmeal exports.
In 2015, most importing Member States reached their 10-year peaks in value terms. Germany was the only exception.

Spain absorbed the major part of extra-EU imports, importing more than 1 million tonnes with a value of EUR 3.8 billion. While this marked a 10% value increase over 2014, volumes remained stable. Sweden followed with imports of 733,000 tonnes and EUR 3.5 billion, due to large quantities of Norwegian salmon entering the EU being registered by customs as Swedish imports, even if most of it was dispatched and consumed elsewhere in the EU.

Germany had a EUR 89 million decrease in imports from extra-EU countries, due to the decline in imports of fishmeal and salmon from Peru and Norway, respectively. This was not compensated by the EUR 22 million increase in non-food use products imported from Iceland.
All commodities increased their imported value in 2015, except the non-food use products, which had decreasing volumes as well as value. Among the top 3 valued groups of species – crustaceans, salmonids and groundfish – the latter reported a significant EUR 527 million growth. This was mainly due to the EUR 309 million increase in value of cod imports, especially from Norway and Iceland. This increase was directly linked to the 22% increase in prices that mainly affected value of frozen cod, which had an increase of EUR 165 million.

It is also worth mentioning that cephalopods reported a significant value increase of 17% between 2014 and 2015, mostly attributable to the EUR 126 million or 29% increase registered for octopus.

As shown in the table below, the increase in value of fish imported in the EU in 2015 is even more remarkable when compared with 2010, for most of groups of species. However, on the other side, freshwater fish registered a significant drop of EUR 157 million, a 20% decrease, due to a EUR 118 million or 32% decline in imports of freshwater catfish (including pangasius).

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</thead>
<tbody>
<tr>
<td>Crustaceans</td>
<td>3.585</td>
<td>3.851</td>
<td>3.667</td>
<td>3.763</td>
<td>4.488</td>
<td>4.641</td>
<td>+3%</td>
<td>+29%</td>
</tr>
<tr>
<td>Salmonids</td>
<td>3.128</td>
<td>3.118</td>
<td>3.228</td>
<td>4.146</td>
<td>4.430</td>
<td>4.578</td>
<td>+3%</td>
<td>+46%</td>
</tr>
<tr>
<td>Groundfish</td>
<td>3.239</td>
<td>3.517</td>
<td>3.577</td>
<td>3.418</td>
<td>3.616</td>
<td>4.143</td>
<td>+15%</td>
<td>+28%</td>
</tr>
<tr>
<td>Tuna and tuna-like species</td>
<td>1.845</td>
<td>2.127</td>
<td>2.561</td>
<td>2.860</td>
<td>2.562</td>
<td>2.577</td>
<td>+1%</td>
<td>+40%</td>
</tr>
<tr>
<td>Cephalopods</td>
<td>1.248</td>
<td>1.491</td>
<td>1.371</td>
<td>1.110</td>
<td>1.235</td>
<td>1.446</td>
<td>+17%</td>
<td>+16%</td>
</tr>
<tr>
<td>Other marine fish</td>
<td>1.193</td>
<td>1.245</td>
<td>1.016</td>
<td>981</td>
<td>987</td>
<td>1.088</td>
<td>+10%</td>
<td>-9%</td>
</tr>
<tr>
<td>Non food use</td>
<td>793</td>
<td>757</td>
<td>995</td>
<td>874</td>
<td>914</td>
<td>879</td>
<td>-4%</td>
<td>+11%</td>
</tr>
<tr>
<td>Bivalves</td>
<td>638</td>
<td>810</td>
<td>651</td>
<td>629</td>
<td>763</td>
<td>845</td>
<td>+11%</td>
<td>+32%</td>
</tr>
<tr>
<td>Small pelagics</td>
<td>622</td>
<td>739</td>
<td>796</td>
<td>717</td>
<td>689</td>
<td>737</td>
<td>+7%</td>
<td>+18%</td>
</tr>
<tr>
<td>Freshwater fish</td>
<td>794</td>
<td>779</td>
<td>685</td>
<td>645</td>
<td>617</td>
<td>637</td>
<td>+3%</td>
<td>-20%</td>
</tr>
<tr>
<td>Misc. aquatic products</td>
<td>454</td>
<td>466</td>
<td>464</td>
<td>433</td>
<td>424</td>
<td>448</td>
<td>+6%</td>
<td>-1%</td>
</tr>
<tr>
<td>Flat fish</td>
<td>149</td>
<td>153</td>
<td>264</td>
<td>253</td>
<td>276</td>
<td>287</td>
<td>+4%</td>
<td>+93%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.688</strong></td>
<td><strong>19.052</strong></td>
<td><strong>19.276</strong></td>
<td><strong>19.830</strong></td>
<td><strong>21.001</strong></td>
<td><strong>22.307</strong></td>
<td><strong>+6%</strong></td>
<td><strong>+26%</strong></td>
</tr>
</tbody>
</table>
Looking at volume variations, most commodities experienced losses between 2014 and 2015. Groundfish volume, for example, decreased 26,000 tonnes, and the group “miscellaneous aquatic products”, which is mainly seaweed, decreased 7,400 tonnes.

However, most imported groups reported increasing trends for 2010-2015, especially salmonids.

Table 12
Volume of extra-EU imports by group of species (1,000 tonnes)
Source: EUMOFA based on elaboration of EUROSTAT data

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</thead>
<tbody>
<tr>
<td>Groundfish</td>
<td>1.091</td>
<td>1.095</td>
<td>1.103</td>
<td>1.153</td>
<td>1.188</td>
<td>1.162</td>
<td>-2%</td>
<td>+7%</td>
</tr>
<tr>
<td>Salmonids</td>
<td>631</td>
<td>663</td>
<td>763</td>
<td>776</td>
<td>837</td>
<td>877</td>
<td>+5%</td>
<td>+39%</td>
</tr>
<tr>
<td>Non-food use</td>
<td>815</td>
<td>736</td>
<td>884</td>
<td>766</td>
<td>937</td>
<td>841</td>
<td>-10%</td>
<td>+3%</td>
</tr>
<tr>
<td>Tuna and tuna-like species</td>
<td>673</td>
<td>698</td>
<td>666</td>
<td>701</td>
<td>718</td>
<td>722</td>
<td>+1%</td>
<td>+7%</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>662</td>
<td>660</td>
<td>604</td>
<td>596</td>
<td>622</td>
<td>602</td>
<td>-3%</td>
<td>-9%</td>
</tr>
<tr>
<td>Cephalopods</td>
<td>431</td>
<td>392</td>
<td>379</td>
<td>370</td>
<td>363</td>
<td>375</td>
<td>+3%</td>
<td>-13%</td>
</tr>
<tr>
<td>Small pelagics</td>
<td>427</td>
<td>404</td>
<td>379</td>
<td>354</td>
<td>358</td>
<td>357</td>
<td>=</td>
<td>-16%</td>
</tr>
<tr>
<td>Bivalves</td>
<td>195</td>
<td>235</td>
<td>189</td>
<td>206</td>
<td>252</td>
<td>252</td>
<td>=</td>
<td>+29%</td>
</tr>
<tr>
<td>Other marine fish</td>
<td>318</td>
<td>316</td>
<td>236</td>
<td>235</td>
<td>235</td>
<td>229</td>
<td>-3%</td>
<td>-28%</td>
</tr>
<tr>
<td>Freshwater fish</td>
<td>331</td>
<td>305</td>
<td>256</td>
<td>256</td>
<td>230</td>
<td>209</td>
<td>-9%</td>
<td>-37%</td>
</tr>
<tr>
<td>Misc. aquatic products</td>
<td>167</td>
<td>207</td>
<td>183</td>
<td>169</td>
<td>150</td>
<td>129</td>
<td>-14%</td>
<td>-23%</td>
</tr>
<tr>
<td>Flat fish</td>
<td>48</td>
<td>44</td>
<td>70</td>
<td>72</td>
<td>79</td>
<td>75</td>
<td>-5%</td>
<td>+56%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5.788</strong></td>
<td><strong>5.754</strong></td>
<td><strong>5.713</strong></td>
<td><strong>5.654</strong></td>
<td><strong>5.968</strong></td>
<td><strong>5.830</strong></td>
<td><strong>-2%</strong></td>
<td><strong>+1%</strong></td>
</tr>
</tbody>
</table>

Chart 43
EU imports by group of species by value (2015)
Source: EUMOFA based on elaboration of EUROSTAT data
Since 2013, crustaceans have been the most valued group of species imported in the EU, representing 21% of the total. Its 2015 imports reached a value peak of EUR 4,6 billion for 602,000 tonnes. This was due to an increase in import prices that affected almost all imported species of this group. The only exception was tropical shrimp, which was imported at a slightly declined price of 7,55 EUR/kg, which was only 0,4% less than 2014.

Several of the important species within the crustaceans category had both decline in import volume and higher prices in 2015. For example, crab’s volume declined 5,5% and its price increased by 15%, and lobster volume decreased 3% in volume, while its price rose 23%. For miscellaneous shrimp, which is primarily coldwater shrimp from the North Atlantic, and red shrimp from Argentina, import volumes were relatively stable, while import price still increased by 12%.

Spain absorbed 22% of EU crustaceans imports. Total import value of EUR 1 billion marked an 11% increase from 2014.

The main countries from which the EU imports crustaceans are India and Ecuador. Despite decreasing values reported in 2015, their combined coverage was 25% of the total at EUR 582 million and EUR 579 million, respectively. Imports from Viet Nam were also noteworthy, growing by a significant 18% from 2014 to 2015 to EUR 456 million, mostly destined for the UK and the Netherlands.

Frozen shrimps rank second to salmon among products imported into the EU in value. In 2015, they amounted to EUR 3 billion which was EUR 58 million more than in 2014.
Despite steadiness in prices of frozen tropical shrimps, their imports fell by 5% between 2014 and 2015, totalling 268,000 tonnes worth EUR 2 billion at 7.55 EUR/kg. Spain and France are the major markets, covering 45% of the EU total. Spain imported 70,000 tonnes of tropical shrimps with a value of EUR 461 million, unchanged from 2014. Volumes remained stable in France as well, at 66,000 tonnes, but a 5% fall was registered in value terms, dropping to EUR 456 million. Both Spain and France imported most of these products from Ecuador, at 5.91 EUR/kg and 5.86 EUR/kg, respectively.

Imported miscellaneous shrimps (mostly frozen) reached their decade peak in 2015. This represented a significant 12% increase from 2014, reaching almost EUR 1.9 billion, while volumes grew slightly and totalled 244,000 tonnes.

Argentina supplied 23% of EU imports of miscellaneous shrimps in 2015, amounting to 71,000 tonnes with a value of EUR 433 million. This represented increases of 10% volume and 14% value. Argentina sold the largest part to Spain, at 5.86 EUR/kg.

Salmonids imported in the EU reached all-time peaks in 2015, with volume reaching 877,000 tonnes for a value of EUR 4.6 billion. These amounts represented increases of 5% in volume and 3% in value, compared with 2014.

Salmon accounts for 95% of the EU’s salmonid imports. In 2015, the EU imported an overall amount of 833,000 tonnes, with a value of EUR 4.3 billion. Import prices decreased by 1.5% compared with 2014, and by 2.5% compared with the peak reached in 2013. This is a result of growth in imported volumes driven by the Russian import ban, by Norwegian exports going to the EU, and by the 15% depreciation of the Norwegian currency against the EUR from 2013 to 2015.

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10 “Tropical shrimps” main commercial species comprehend two CN-8 codes, namely 03061791 (Deepwater rose shrimps (Parapenaeus longirostris), frozen) and 03061792 (Shrimps of the genus Penaeus, frozen).

11 “Miscellaneous shrimps” main commercial species is the result of the aggregation of seven CN-8 codes, namely 03061799, 03062710, 03061710, 03062799 (unspecified shrimps and prawns, frozen, not frozen and smoked), 16052110, 16052190 and 16052900 (unspecified shrimps, prepared or preserved, in different packaging).
Of all salmon imported, 85% was fresh and originated from Norway, corresponding to 700.00 tonnes and EUR 3.5 billion. According to Eurostat, it was mostly sold to neighbouring Sweden and Denmark, but they re-exported it to other EU countries. In other words, the real salmon importing countries were the main consumer markets in the EU, with France in the lead.

Chart 46 shows that Norway more than doubled its exports of fresh salmon to the EU during the last decade. Between 2014 and 2015, growth rates of 10% volume and 7% value were observed, while the average price slightly declined from 5.12 EUR/kg to 4.99 EUR/kg.

In 2015, groundfish accounted for 19% of EU imports from third countries in terms of value and 20% in terms of volume.

This amounted to 1.2 million tonnes, a 2% decrease from 2014, at a value of EUR 4.1 billion, which was a remarkable 15%, or EUR 528 million, increase from 2014 and a 10-year peak in value. This peak was primarily linked to a large, 17% import price increase, which was positively affected by cod, Alaska pollock and hake. For the Alaska pollock, the USD’s strengthening against the EUR was a pivotal reason for an increased import price from the US, China and Russia.

In 2015, groundfish accounted for 19% of EU imports from third countries in terms of value and 20% in terms of volume.

More than half of groundfish imported is cod. In 2015, it totalled 486.000 tonnes and EUR 2.2 billion. Cod was also responsible for the value growth of the whole commodity group, as its imported value rose by 17% or EUR 309 million, due to a 22% price rise in the face of a 5% contraction in volumes. The price increase was generated because the TAC\(^\text{12}\), and thereby catches of cod in the North Atlantic, decreased by nearly 10% in 2014-2015.

Norway and Iceland were the main countries of origin. Norway totalled 174.000 tonnes and EUR 789 million, with a 30% price increase (from 3.50 to 4.54 EUR/kg), while Iceland reached 90.000 tonnes and EUR 558 million, with a 15% price increase. Both reported values increases, of 16% and 13%, respectively.

The Netherlands was the major importer of cod deriving from extra-EU countries, mostly from Iceland at 5.20 EUR/kg, and from Russia at 3.75 EUR/kg. However, these products were then re-exported to other Member States.

\(^{12}\) Total Allowable Catches
Hake

Imports of hake covered 15% of total groundfish originating from extra-EU countries. An 8% price growth, observed between 2014 and 2015, caused values to increase 7%, from EUR 532 million to EUR 572 million. Volumes, however, stood flat at almost 178.700 tonnes.

Hake is mostly sold by Namibia, which had exports to the EU amounting to 57.000 tonnes worth EUR 206 million in 2015. Spain absorbed 70% of it, mostly as frozen fillets, at 3,59 EUR/kg.

Tuna and tuna-like species

Extra-EU imports of tuna and tuna-like species\(^1\) totalled 978.000 tonnes in 2015, worth over EUR 3 billion. Among these, swordfish imports reached 21.600 tonnes, with a value of EUR 125 million.

The major part of this commodity consists of “processed tuna”. In 2015, its value of more than EUR 2 billion represented almost 70% of total imported tuna. Volumes were at 536.000 tonnes. This category comprises canned tuna (80%) and tuna loins for the canning industry (20%). In looking at the composition by specific species, skipjack tuna covered more than half of the total, with 304.000 tonnes valued at over EUR 1 billion imported in 2015. Yellowfin tuna followed, with 131.000 tonnes accounting to EUR 637 million.

The most relevant suppliers sold these products at a lower price in 2015, compared with 2014. As regards Ecuador, the price went from 3,87 EUR/kg to 3,72 EUR/kg. Mauritius and Thailand registered very slight 1% price decreases, with Mauritius selling it at 3,90 EUR/kg and Thailand at 3,49 EUR/kg.

Extra-EU imports of processed tuna are mostly absorbed by Spain, Italy and the UK. In 2015, Italy imported the lowest amount of these products of the last decade, mainly due to declining imports from Ecuador that destined most processed tuna to Spain, offset by an increase of intra-EU imports.

\(^1\) The commodity group “Tuna and tuna-like species” includes the following main commercial species: albacore tuna, bigeye tuna, bluefin tuna, skipjack tuna, swordfish, yellowfin tuna, and the aggregation “miscellaneous tunas”.

![Chart 47: Processed tuna imported from extra-EU countries (by value, 2015)](source: EUMOFA based on elaboration of EUROSTAT data)
Non-food use products represented 14% of the volume of fish imported by the EU, ranking third among all commodity groups. In 2015, they totalled 841,400 tonnes worth EUR 879 million. Half of these values specifically refer to fishmeal.

Fishmeal imported in the EU amounted to 279,000 tonnes worth EUR 374 million in 2015, the lowest volume of the last decade and a 25% decrease from 2014. Values also decreased, but to a lesser extent of 11%. The volume fall was due to declining imports from Peru, the most important supplier. In 2015, Peru sold 45,400 tonnes of fishmeal valued at EUR 60 million to the EU, which was 105,500 tonnes and EUR 121 million less than in 2014.

At Member State level, Germany and Denmark are fishmeal’s main markets. Denmark mostly imports animal feed from Norway, and Germany imports almost entirely flours, meals and pellets from Peru, mainly for use as poultry feed and for pig farming. While Denmark reported growing imports of fishmeal between 2014 and 2015 – from 67,000 tonnes and EUR 56 million to 76,400 tonnes and EUR 89 million – Germany reported a decrease. Its import of 122,000 tonnes of fishmeal was 74,000 tonnes less than 2014, and its value of EUR 165 million was EUR 61 million less than 2014. Germany also observed a substantial price growth, with fishmeal imported at 1,351 EUR/tonne, which was 200 EUR/tonne or 17% higher than 2014. Denmark imported fishmeal at an average price of 1,168 EUR/tonne, which was 335 EUR/tonne or 40% higher than in 2014.

Volumes of imported fish oil fell 11% during 2014-2015, from 196,000 to 175,000 tonnes. In value terms, a 3% decrease was observed, from EUR 281 million to EUR 274 million. Almost 65% of fish oil comes from Peru and Norway.

Denmark accounted for 48% of EU imports, totalling 84,000 tonnes worth EUR 146 million. As a consequence of a substantial 25% price increase – from 1,394 to 1,742 EUR/tonne – volumes plummeted by
4.4 Extra-EU exports

29,500 tonnes or 26% between 2014 and 2015.

After the peak reached in 2014, 2015 extra-EU exports decreased in volume by 11%, dropping to 1.92 million tonnes. However, this was 20,000 tonnes higher than the 10-year average. Value rose by 3%, from EUR 4.4 billion to EUR 4.5 billion, the highest amount ever registered.

Four of the top 5 exporting Member States registered a value growth between 2014 and 2015. The UK was the only exception. Indeed, UK extra-EU exports that totalled EUR 622 million for 144,000 tonnes represented decreases of 49,000 tonnes and EUR 85 million. This was due to declining exports of salmon to the United States and China.

Spain exported 417,000 tonnes worth EUR 830 million outside the EU. While this represented a EUR 29 million increase, volumes fell by 45,000 tonnes with respect to the peak it reached in 2014.

Denmark reached its highest export value of the last decade which, at EUR 728 million, was almost EUR 100 million more than in 2014. In terms of volume, a 6% growth was observed, totalling 292,000 tonnes.

The Netherlands confirmed itself as the most relevant exporting Member State in volume terms, accounting for 417,000 tonnes, despite a significant 97,000-tonne or 19% decrease. Value of its exports rose slightly, and totalled EUR 600 million.
EU exports to the United States were the most valued, at EUR 521 million for 81,000 tonnes, quite stable amounts if compared with the previous year.

Exports to Norway followed and totalled EUR 443 million with a volume of 224,000 tonnes, marking a 26% fall in volume terms. This was the lowest level since 2008, due to declining exports of fishmeal from Denmark. Denmark increased its sale of fishmeal to Japan, China and Russia in 2015, which is why the share destined to Norway decreased.

Exports to Nigeria, a major extra-EU market for small pelagics from the Netherlands, fell by 12% or 35,000 tonnes, reaching 266,000 tonnes with a value of EUR 275 million.
Chart 52

Top extra-EU countries of destination by value (2015)

Source: EUMOFA based on elaboration of EUROSTAT data

Chart 53

Top extra-EU countries of destination by volume (2015)

Source: EUMOFA based on elaboration of EUROSTAT data
### Table 13

**EU exports (million euro)**

Source: EUMOFA based on elaboration of EUROSTAT data

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</tr>
</thead>
<tbody>
<tr>
<td>Small pelagics</td>
<td>608</td>
<td>651</td>
<td>812</td>
<td>747</td>
<td>867</td>
<td>782</td>
<td>-10%</td>
<td>+29%</td>
</tr>
<tr>
<td>Salmonids</td>
<td>339</td>
<td>480</td>
<td>513</td>
<td>627</td>
<td>704</td>
<td>674</td>
<td>-4%</td>
<td>+99%</td>
</tr>
<tr>
<td>Tuna and tuna-like species</td>
<td>384</td>
<td>475</td>
<td>639</td>
<td>673</td>
<td>529</td>
<td>565</td>
<td>+7%</td>
<td>+47%</td>
</tr>
<tr>
<td>Non food use</td>
<td>341</td>
<td>413</td>
<td>453</td>
<td>505</td>
<td>518</td>
<td>563</td>
<td>+9%</td>
<td>+65%</td>
</tr>
<tr>
<td>Other marine fish</td>
<td>402</td>
<td>460</td>
<td>407</td>
<td>379</td>
<td>346</td>
<td>367</td>
<td>+6%</td>
<td>-9%</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>251</td>
<td>285</td>
<td>307</td>
<td>291</td>
<td>316</td>
<td>346</td>
<td>+9%</td>
<td>+38%</td>
</tr>
<tr>
<td>Misc. aquatic products</td>
<td>228</td>
<td>236</td>
<td>265</td>
<td>287</td>
<td>299</td>
<td>321</td>
<td>+8%</td>
<td>+41%</td>
</tr>
<tr>
<td>Groundfish</td>
<td>247</td>
<td>263</td>
<td>341</td>
<td>313</td>
<td>292</td>
<td>308</td>
<td>+5%</td>
<td>+25%</td>
</tr>
<tr>
<td>Flat fish</td>
<td>133</td>
<td>161</td>
<td>194</td>
<td>204</td>
<td>216</td>
<td>250</td>
<td>+15%</td>
<td>+88%</td>
</tr>
<tr>
<td>Bivalves</td>
<td>84</td>
<td>100</td>
<td>99</td>
<td>110</td>
<td>126</td>
<td>156</td>
<td>+24%</td>
<td>+86%</td>
</tr>
<tr>
<td>Cephalopods</td>
<td>66</td>
<td>81</td>
<td>116</td>
<td>75</td>
<td>101</td>
<td>117</td>
<td>+17%</td>
<td>+77%</td>
</tr>
<tr>
<td>Freshwater fish</td>
<td>41</td>
<td>33</td>
<td>52</td>
<td>49</td>
<td>50</td>
<td>51</td>
<td>+3%</td>
<td>+24%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.123</strong></td>
<td><strong>3.639</strong></td>
<td><strong>4.197</strong></td>
<td><strong>4.258</strong></td>
<td><strong>4.362</strong></td>
<td><strong>4.499</strong></td>
<td><strong>+3%</strong></td>
<td><strong>+44%</strong></td>
</tr>
</tbody>
</table>

### Table 14

**EU exports (1.000 tonnes)**

Source: EUMOFA based on elaboration of EUROSTAT data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Small pelagics</td>
<td>786</td>
<td>666</td>
<td>718</td>
<td>644</td>
<td>846</td>
<td>696</td>
<td>-18%</td>
<td>-11%</td>
</tr>
<tr>
<td>Non food use</td>
<td>308</td>
<td>333</td>
<td>343</td>
<td>354</td>
<td>390</td>
<td>354</td>
<td>-9%</td>
<td>+15%</td>
</tr>
<tr>
<td>Tuna and tuna-like species</td>
<td>250</td>
<td>263</td>
<td>291</td>
<td>278</td>
<td>279</td>
<td>256</td>
<td>-8%</td>
<td>+2%</td>
</tr>
<tr>
<td>Groundfish</td>
<td>155</td>
<td>84</td>
<td>195</td>
<td>171</td>
<td>162</td>
<td>155</td>
<td>-5%</td>
<td>=</td>
</tr>
<tr>
<td>Salmonids</td>
<td>63</td>
<td>81</td>
<td>98</td>
<td>114</td>
<td>118</td>
<td>105</td>
<td>-11%</td>
<td>+67%</td>
</tr>
<tr>
<td>Misc. aquatic products</td>
<td>80</td>
<td>81</td>
<td>66</td>
<td>76</td>
<td>86</td>
<td>93</td>
<td>+8%</td>
<td>+16%</td>
</tr>
<tr>
<td>Other marine fish</td>
<td>116</td>
<td>121</td>
<td>117</td>
<td>102</td>
<td>101</td>
<td>91</td>
<td>-10%</td>
<td>-22%</td>
</tr>
<tr>
<td>Crustaceans</td>
<td>74</td>
<td>74</td>
<td>72</td>
<td>67</td>
<td>67</td>
<td>67</td>
<td>-1%</td>
<td>-9%</td>
</tr>
<tr>
<td>Flat fish</td>
<td>37</td>
<td>38</td>
<td>44</td>
<td>47</td>
<td>48</td>
<td>46</td>
<td>-4%</td>
<td>+24%</td>
</tr>
<tr>
<td>Cephalopods</td>
<td>22</td>
<td>21</td>
<td>28</td>
<td>22</td>
<td>28</td>
<td>25</td>
<td>-11%</td>
<td>+14%</td>
</tr>
<tr>
<td>Bivalves</td>
<td>18</td>
<td>20</td>
<td>16</td>
<td>17</td>
<td>19</td>
<td>20</td>
<td>+9%</td>
<td>+11%</td>
</tr>
<tr>
<td>Freshwater fish</td>
<td>7</td>
<td>7</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>-2%</td>
<td>+71%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.917</strong></td>
<td><strong>1.789</strong></td>
<td><strong>1.998</strong></td>
<td><strong>1.903</strong></td>
<td><strong>2.157</strong></td>
<td><strong>1.919</strong></td>
<td><strong>-11%</strong></td>
<td>=</td>
</tr>
</tbody>
</table>
Despite a decline, small pelagics was the group of species most exported outside of the EU in 2015. However, its share fell from 20% to 17% in value and from 39% to 36% in volume.

After reaching a peak in 2014, extra-EU exports of mackerel declined 16% in value and 9% in volume in 2015, totalling 223,000 tonnes with a value of EUR 264 million. Almost all mackerel was sold frozen, mainly by the Netherlands and Ireland, which sold 46% and 24% of the total, respectively. Nigeria was the main country of destination for both EU suppliers. In 2015, it imported frozen mackerel from the Netherlands at 1.23 EUR/kg and from Ireland at 1.27 EUR/kg, both of which represented a 3% decrease compared with 2014.

Herring exports dropped as well, amounting to 215,000 tonnes and EUR 178 million, which were decreases of 21% and 7%, respectively. The Netherlands, home of the largest EU freezer trawler company involved in pelagic fishing, accounted for 60% of total extra-EU exports, with 129,000 tonnes valued at EUR 108 million. However, this represented a plummet of almost 70,000 tonnes and EUR 17 million. Dutch exports of herring were mostly directed to Nigeria and Egypt.

Horse mackerel was the only small pelagics species to register a value growth between 2014 and 2015. Its extra-EU exports totalled EUR 167 million, which was a 5% increase over 2014. Volumes fell at the same rate, reaching 147,500 tonnes. The Netherlands, Spain and Ireland, the main exporting Member States, respectively covered
37%, 29% and 24% of the total. Of them, Dutch exports reported a minor decrease while Spain and Ireland remained almost flat. Egypt, the main market, represented over 41% of the total, followed by West African countries of Nigeria, Cameroon and Ghana.

Compared to imported non-food use products, those exported by EU Member States included a wider share of fish oil that represented 37% in terms of value. Fishmeal accounts for almost 60% of the total.

In 2015, values of extra-EU exports of non-food use products peaked at EUR 563 million, which was 9% more than in 2014. Volumes fell by 9% and totalled 353,500 tonnes.

The EU exported 205,000 tonnes of fishmeal with a value of EUR 315 million in 2015. The main exporter, Denmark, accounted for 60% of the total in 2015. Its exports were mostly destined to Norway, where fishmeal was sold at 1.420 EUR/tonne, 6% more than the 2014 price.

The value of fish oil exported by the EU reached its peak in 2015, at EUR 211 million, which represented a 9% growth over 2014. However, in volume terms, fish oil had a 12% fall, dropping to 107,000 tonnes. Denmark exported almost all of it (90%), mainly to Norway at a significantly higher price, moving from 1.387 EUR/tonne to 1.749 EUR/tonne, which was 26% more than in 2014. Volumes decreases by over 20,000 tonnes.

EU exports of tuna mostly consist of catches by the French and Spanish fleets, landed in African countries (Atlantic and Indian Oceans) and Ecuador. At a later stage, France and Spain process the tuna and sell it as loins or canned tuna, particularly to EU Member States.

Almost all EU exports of fresh and frozen tuna come from Spain and France. Spain’s main destination countries in 2015, Mauritius,
Ecuador and Seychelles, maintained the same relevance as in 2014. On the other hand, French exports to Ghana skyrocketed, increasing almost 5-fold during 2014-2015, while its exports to Thailand decreased.

In 2015, exports of skipjack tuna totalled 134,000 tonnes worth EUR 178 million, reporting a remarkable 30% rise in value terms and slight 3% decline in volume. It was sold almost entirely frozen. Spain exported almost 100,000 tonnes of skipjack tuna at an average price of 1.09 EUR/kg, which was 11% higher than the 2014 price. France sold 28,000 tonnes at 1.04 EUR/kg, which was the same price as the previous year.

In 2015, exports of frozen yellowfin tuna stood flat with respect to 2014, at 84,000 tonnes worth EUR 133 million. Spain and France accounted for 55,000 and 26,000 tonnes, respectively, with values of EUR 79 million and EUR 44 million.

After a decade of growth, extra-EU exports of salmonids started to decline in 2015, due to falling exports of salmon by the UK. The export volume of 105,000 tonnes with a value of EUR 674 million represented a drop of 13,000 tonnes and EUR 30 million from 2014 totals.

EU exports of salmon amounted to 86,000 tonnes with a value of EUR 567 million, marking a significant EUR 33 million fall from 2014. The UK share, which was early three-fourths of the total in 2014, dropped to 63% in 2015. Its exports mostly consisted of fresh salmon. The major extra-EU market, the United States, imported 32,000 tonnes at 7.42 EUR/kg in 2015, a price drop of 14% from 2014.

Smoked salmon accounts for 8% of the salmon exported by the EU, but represents only 19% of the total value. The major exporters,
Germany and the Netherlands, totalled 1,700 and 1,400 tonnes each in 2015. While the Netherlands exported smoked salmon at 20,05 EUR/kg, Germany exported it at 15,77 EUR/kg. It is worth mentioning the significant increase reported by France, which doubled volumes from less than 400 tonnes to more than 700 tonnes, and almost tripled the value, thanks to a strong increase in sales to Switzerland.

Almost half of fish products trade within and outside the EU consists of exchanges between EU Member States. In 2015, they reached their highest amount of the last 10 years, at 6 million tonnes for EUR 22.5 billion, which represented 4% and 7% increases, respectively, compared to 2014.

In terms of value, the largest 15 flows, shown in chart 59, accounted for 17% of the 2015 total and, combined, amounted to almost EUR 4 billion.

With respect to the previous year, a change was observed regarding Spain’s exports to Italy, with squid surpassing tuna as the most sold product in 2015. This could have been due to Italy’s decreasing imports of squid from Thailand, its major supplier.
All species are exchanged within the EU.

At EUR 6.4 billion and over 1 million tonnes, salmonids reached their 10-year peak in 2015. Other relevant groups of species also reported their highest amounts of intra-EU exchanges. For example, groundfish accounted for almost 800.000 tonnes with a value of EUR 3 billion, and small pelagics reached EUR 1.5 billion and 1 million tonnes.
Intra-EU exchanges of salmonids increased significantly between 2005 and 2015, with an average annual growth rate of 12%. They almost entirely originate from Norway.

Salmon alone represents 25% of total intra-EU trade in value terms and 15% in volume. In 2015, it accounted for 927,000 tonnes worth EUR 5,7 billion, an increase of 72,000 tonnes and EUR 280 million. Although volume was significantly higher than 2014, the resulting price of 6,16 EUR/kg represented only a 3% decrease.

Of salmon traded within the EU, 80%, or 750,000 tonnes, was fresh. In value terms, it totalled EUR 4 billion, but the share dropped to 70%, because of the market for smoked products, which totalled EUR 1,2 billion for 100,000 tonnes. Frozen salmon represented 8% of total in both volume and value, at 76,000 tonnes and EUR 483 million.

Sweden, the main player, exported the majority of its salmon, 118,000 tonnes, to Poland at 4,89 EUR/kg. France, Sweden’s second most important country of destination, received 92,000 tonnes of salmon at 5,43 EUR/kg. France sends around one-third and Poland sends almost half of their imported salmon to smoking industries.

Groundfish traded in the EU in 2015 reached peaks of 800,000 tonnes and EUR 3 billion. While this was a 5% increase in volume, the value rose 15% over 2014, due to remarkable growth reported by the Netherlands’ exports of cod.

The value of cod traded within the EU increased notably, registering EUR 276 million more in 2015 than in 2014, with a decade peak of EUR 1,8 billion. Of total value, 36% was traded frozen, 32% dried/salted, 29% fresh and 3% prepared/preserved. All of the most relevant players reported significant increases. For the Netherlands...
and Sweden, it rose by EUR 100 million and EUR 80 million, respectively, and, to a lesser extent, Denmark and Germany reported increases of EUR 34 million and EUR 13 million each.

In terms of volume, an overall 21,000 tonnes growth led to a total of almost 400,000 tonnes in 2015, despite average price increased 12%, from 4.12 EUR/kg to 4.60 EUR/kg.

### Tuna and tuna-like species

In 2015, tuna and tuna-like species traded in the EU reached 321,000 tonnes worth EUR 1.4 billion, representing increases of 8% and 6%, respectively. Of this group, 63% was canned tuna, which accounted for 203,000 tonnes and EUR 887 million in 2015. Canned tuna also saw a price drop of 8%, from 4.74 EUR/kg to 4.37 EUR/kg, compared with 2014, which contributed to a 10% volume growth. Spain is the major Member State trading canned tuna. However, its share of the EU total fell during 2014-2015, from 51% to 48%, due to the Netherlands' report of a boost from 27,000 to 41,000 tonnes.

Exports from Spain, totalling 97,600 tonnes and EUR 437 million, were mainly destined to Italy and sold at 5.01 EUR/kg. On the other hand, the Netherlands mostly sold canned tuna to the German market, at 2.76 EUR/kg.

### Small pelagics

In terms of volume, small pelagics are the most relevant species traded within the EU. In 2015, they were mostly traded frozen (48%) and fresh (33%), with prepared/preserved products accounting for 17% of the total, and dried/salted/smoked products comprising another 2%. In total, they amounted to more than 1 million tonnes and EUR 1.5 billion. This was a 10,000-tonne growth with a significant EUR 42 million increase that was driven by the Netherlands. Indeed, Netherlands' export of small pelagics to other Member States went from 90,000 to over 120,000 tonnes, and from EUR 118 million to EUR 164 million. Other important players were Denmark, Germany, Sweden and the United Kingdom.

Herring ranks second among fish species traded in the EU, in terms of volume. In 2015, it accounted for 486,000 tonnes with a value of EUR 568 million, which represented an increase of almost EUR 30 million. However, herring's price grew marginally, from 1.13 EUR/kg to 1.17 EUR/kg between 2014 and 2015.

Denmark, the main player, accounted for 129,000 tonnes worth EUR 145 million in 2015. This amounted to a remarkable 14% or EUR 18 million growth from 2014, and almost brought Denmark to the level of Poland, the main player in value terms. Both Denmark and Poland destined most of their herring to Germany, selling it at very different prices of 0.87 EUR/kg and 2.58 EUR/kg, respectively.

### Non-food use products

In 2015, non-food use products covered 11% of total in terms of volume and were among the top 3 fish products traded in the EU. They accounted for 645,000 tonnes worth EUR 760 million, and
reported small increases of 2% in volume and 6% in value from 2014.

Denmark and Germany are the main dealers of fishmeal.

In 2015, they together covered 42% of the total. Table 15 shows a breakdown of their most relevant exports of fishmeal to other Member States.
Exchanges of crustaceans between EU Member States reached their 10-year value peak in 2015, totalling EUR 2.8 billion. This was a 6% increase compared with 2014. Volume, which reached 319,000 tonnes, represented a 3% decrease.

**Crustaceans**

Crustaceans traded within the EU are mostly represented by miscellaneous shrimps, mostly comprising prepared/preserved and frozen products. Total exchanges amounted to 113,000 tonnes in 2015, unchanged from 2014, but a 14% value increase brought the total to EUR 1 billion. Denmark, the main player, traded 23,000 tonnes with a value of EUR 251 million, selling mainly to the United Kingdom, Sweden, Germany and Italy.

**Miscellaneous shrimps**

Intra-EU trade of tropical shrimps remained almost flat during 2014-2015, at 78,600 tonnes worth EUR 690 million. They were mostly sold by the Netherlands (20,300 tonnes and EUR 181 million), Belgium (17,600 tonnes and EUR 153 million) and Spain (16,700 tonnes and EUR 129 million). France, Germany and Portugal were their main markets of destination, respectively.

**Tropical shrimps**
An increase in both volumes and values of EU landings was observed in 2014 compared to 2013, respectively by 6% and 7%. This corresponds to a 244,800-tonne and a EUR-467-million boost in comparison with 2013. In value terms, the countries that contributed the most to such an increase were Spain and the United Kingdom, as they reported a growth of EUR 556 million and EUR 113 million each. Spain registered a remarkable increase in volume as well (+210,740 tonnes) and, together with Denmark (+ 144,350 tonnes), was the main contributor to the overall volume rise.

In 2014, EU landings of groundfish and tuna, two of the most significant groups of fish products, skyrocketed, reaching a 10-year value peak. The peak was due to an increase in value of three species in particular: hake, which grew by EUR 128 million (+28%), yellowfin tuna, by EUR 99 million (+46%) and skipjack tuna, by EUR 79 million (+40%). The volume of groundfish landed accounted for 19% of total value of EU landings, which has been the highest share covered by this commodity group during the last decade.

Declines by EUR 63 million and EUR 59 million were observed respectively for “other marine fish” and small pelagics.

---

14 This group includes monk, seabream, red mullet, seabass, ray, John dory, scabbardfish, gurnard, picarel, smelt, dogfish and weever.
When it comes to volume, the group of small pelagics alone totalled 42% of landings; a slight increase from 41% in 2013. However, its 10-year trend is downward, due to the growth of groundfish and tuna landed, as well as to a decrease of small pelagics landings by almost a quarter.
**Chart 68**

*Most important commercial species landed in the EU – value, % of total and % variation 2014/2013*

Source: EUMOA based on elaboration of EUROSTAT and National sources data

<table>
<thead>
<tr>
<th>Species</th>
<th>Million euro</th>
<th>% on total</th>
<th>% variation 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hake</td>
<td>583</td>
<td>8%</td>
<td>28%</td>
</tr>
<tr>
<td>Shrimps</td>
<td>503</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td>Mackerel</td>
<td>391</td>
<td>5%</td>
<td>31%</td>
</tr>
<tr>
<td>Squid</td>
<td>336</td>
<td>5%</td>
<td>58%</td>
</tr>
<tr>
<td>Yellowfin tuna</td>
<td>314</td>
<td>4%</td>
<td>46%</td>
</tr>
<tr>
<td>Sole</td>
<td>298</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Norway lobster</td>
<td>296</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Skipjack tuna</td>
<td>279</td>
<td>4%</td>
<td>40%</td>
</tr>
<tr>
<td>Cod</td>
<td>233</td>
<td>3%</td>
<td>10%</td>
</tr>
<tr>
<td>Monk</td>
<td>221</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Other main commercial species</td>
<td>3,869</td>
<td>53%</td>
<td>-4%</td>
</tr>
</tbody>
</table>

**Total: EUR 7,32 billion**

**Chart 69**

*Most important commercial species landed in the EU – volume, % of total and % variation 2014/2013*

Source: EUMOA based on elaboration of EUROSTAT and National sources data

<table>
<thead>
<tr>
<th>Species</th>
<th>Tonnes</th>
<th>% on total</th>
<th>% variation 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herring</td>
<td>617,523</td>
<td>14%</td>
<td>-2%</td>
</tr>
<tr>
<td>Mackerel</td>
<td>424,856</td>
<td>9%</td>
<td>37%</td>
</tr>
<tr>
<td>Sprat (=Brisling)</td>
<td>401,309</td>
<td>9%</td>
<td>17%</td>
</tr>
<tr>
<td>Blue whiting</td>
<td>292,345</td>
<td>6%</td>
<td>68%</td>
</tr>
<tr>
<td>Skipjack tuna</td>
<td>243,049</td>
<td>5%</td>
<td>40%</td>
</tr>
<tr>
<td>Sardine</td>
<td>175,236</td>
<td>4%</td>
<td>-11%</td>
</tr>
<tr>
<td>Hake</td>
<td>169,681</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>Yellowfin tuna</td>
<td>143,874</td>
<td>3%</td>
<td>51%</td>
</tr>
<tr>
<td>Anchovy</td>
<td>101,452</td>
<td>2%</td>
<td>13%</td>
</tr>
<tr>
<td>Cod</td>
<td>98,733</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>Other main commercial species</td>
<td>1,831,585</td>
<td>41%</td>
<td>-9%</td>
</tr>
</tbody>
</table>

**Total: 4,50 million tonnes**
The average price of the most commercially relevant products landed in the EU rose in 2014, compared to 2013 as well as to 10 years before.

### Table 17

**Prices at landing stage of most important commercial species for the EU market (EUR/kg)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchovy</td>
<td>1.98</td>
<td>1.90</td>
<td>1.74</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Blue whiting</td>
<td>0.14</td>
<td>0.42</td>
<td>0.32</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Cod</td>
<td>2.15</td>
<td>2.25</td>
<td>2.36</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>European seabass</td>
<td>8.37</td>
<td>10.03</td>
<td>11.13</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Gilt-head seabream</td>
<td>6.29</td>
<td>8.54</td>
<td>9.16</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Hake</td>
<td>4.57</td>
<td>3.20</td>
<td>3.43</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Herring</td>
<td>0.17</td>
<td>0.46</td>
<td>0.34</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Mackerel</td>
<td>0.62</td>
<td>0.96</td>
<td>0.92</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Monk</td>
<td>4.72</td>
<td>5.13</td>
<td>4.98</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Mussel</td>
<td>n/a</td>
<td>0.45</td>
<td>0.60</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Red mullet</td>
<td>7.6</td>
<td>6.93</td>
<td>6.5</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Sardine</td>
<td>0.66</td>
<td>0.92</td>
<td>0.92</td>
<td>=</td>
<td>↑</td>
</tr>
<tr>
<td>Skipjack tuna</td>
<td>0.75</td>
<td>1.15</td>
<td>1.15</td>
<td>=</td>
<td>↑</td>
</tr>
<tr>
<td>Sole</td>
<td>8.98</td>
<td>8.25</td>
<td>8.47</td>
<td>↑</td>
<td>↓</td>
</tr>
<tr>
<td>Sprat (=Brisling)</td>
<td>0.12</td>
<td>0.28</td>
<td>0.24</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Squid</td>
<td>4.85</td>
<td>4.03</td>
<td>5.42</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Yellowfin tuna</td>
<td>0.77</td>
<td>2.26</td>
<td>2.19</td>
<td>↓</td>
<td>↑</td>
</tr>
</tbody>
</table>
Four species of small pelagics – namely herring, mackerel, sprat and sardine – accounted for 1.62 million tonnes or 36% of the total EU landings.

Herring is the most landed species in the EU. In 2014, its volume amounted to 617,500 tonnes (14% of total), for a value of EUR 209 millions. While volume marginally declined compared to the previous year (-2%) in spite of a quota increase (+4%), in terms of value, a remarkable EUR 82 million loss (-28%) was observed; the lowest amount since 2011. This was mostly due to the Irish market, where, after the high amounts of 2012 and 2013, herring’s value went down from EUR 35 million to EUR 7 million during 2013-2014. However, this was slightly lower than the average value recorded during 2005-2011. Significant drops were reported in other relevant Member States: the Netherlands (from EUR 44 million to EUR 26 million), Sweden (from EUR 33 million to EUR 21 million) Germany (from EUR 31 million to EUR 20 million) and Denmark (from EUR 71 million to EUR 63 million). With the only exception of Denmark, they all saw declining volumes as well.

While declining prices were reported in all main Member States during 2013-2014, a price increase can be observed on a longer period (EU average price doubling over 2005).

<table>
<thead>
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<td>0,30</td>
<td>0,50</td>
<td>0,42</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Finland</td>
<td>0,12</td>
<td>0,24</td>
<td>0,22</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Germany</td>
<td>0,30</td>
<td>0,56</td>
<td>0,38</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Ireland</td>
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<td>0,30</td>
<td>↓</td>
<td>↑</td>
</tr>
<tr>
<td>Latvia</td>
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<td>0,27</td>
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<td>=</td>
<td>↑</td>
</tr>
<tr>
<td>Poland</td>
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<td>0,37</td>
<td>0,37</td>
<td>=</td>
<td>↑</td>
</tr>
<tr>
<td>Sweden</td>
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<td>0,46</td>
<td>0,33</td>
<td>↓</td>
<td>↑</td>
</tr>
</tbody>
</table>

In 2014, EU landings of mackerel reached their 10-year volume peak at 424.860 tonnes, worth EUR 391 million, in line with a sharp increase of the TAC, which rose from 338.000 tonnes in 2013 to 613.000 tonnes in 2014. Landings in the UK, which held 47% of the EU TAC in 2014, rose by 58% to 157.500 tonnes, which is the decade volume peak, with prices falling at 1,00 EUR/kg (-10% in local currency, compared to 2013). Spain, which benfitted from a 82% quota increase in 2014, also saw a 59% (74.600 tonnes) boost in volume terms, and experienced a 25% price decrease.

401.300 tonnes of sprats were landed in the EU in 2014, with a 17% increase in comparison with 2013, which witnessed the lowest level of the last decade (342.600 tonnes). Values remained almost stable at EUR 94 million (-1%).

Denmark, the most important Member State for sprat landings (61% of EU total), was the main responsible for the volume increase. It totalled nearly 245.000 tonnes, that is 76.600 tonnes more than in 2013. Nevertheless, this amount was 10% lower than its 10-year average. In terms of price, a 19% decline resulted in 0,22 EUR/kg. However, total value reached EUR 53 million, increasing by 17%.
EU landings of sardine dropped by 11% in 2014 compared with the previous year, due to a remarkable decline in Portugal, where volumes and values registered decreases by 89% and 86%, respectively.

After the growth registered in 2013, which was significantly impacted by Croatia’s accession to the EU, volumes fell to 175,000 tonnes and values to EUR 161 million. Nonetheless, the average price remained stable at 0.92 EUR/kg.

Croatia is by far the main Member State landing sardine. In 2014, it reported increases by 6% in volume and 25% in value, totalling 57,000 tonnes worth EUR 29 million. The resulting price was 0.51 EUR/kg (+18%). As to the other Member States, the majority of the sardines landed in the EU are provided by Spain, representing more than 40% in value in 2014. The price went up from 1.21 EUR/kg in 2013 to 1.35 EUR/kg in 2014 (+11%), causing an equal increase in value, as volumes were unchanged at 48,600 tonnes.

The most landed groundfish species in the EU are blue whiting, hake and, to a lesser extent, cod. In 2014, they represented 12% of total landings, with 560,760 tonnes, increasing their share by 2% compared to the previous year.

Of all finfish landed, hake has the highest value. In 2014, a 10-year peak was reached at EUR 583 million, thanks to the increases observed in Spain (+ EUR 81 million), Ireland (+ EUR 26 million), France (+ EUR 20 million) and the UK (+ EUR 13 million).

Volumes of hake landed in the EU were at their highest amount as well, totalling 169,700 tonnes, driven by increases reported in the same four countries. As far as Italy is concerned, which is among the Member States where hake has the highest value, the lowest amount of the last decade was registered: it totalled EUR 64 million (-5%) for 8,700 tonnes (-11%).

In 2014, the EU-average price recovered after the fall of the previous year and reached 3.43 EUR/kg. Of the top 3 markets, Italy and Spain reported increases by 6% and 13%, respectively, the latter reaching the highest price since 2005. The price in France has been stable over the last two years, after a decline in 2012.

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**Chart 71**

Price trend at landing stage of hake in France, Italy and Spain

Source: EUMOFA based on elaboration of EUROSTAT data
In 2014, landings of cod fell by 4% in volume and rose by 10% in value, amounting to 98,700 tonnes and EUR 233 million. The EU-average price reached its 6-year peak with 2.36 EUR/kg in 2014.

Denmark and Spain covered together 40% of total EU volumes. They both registered an increase, by 13% and 6% respectively, totalling 20,600 (Spain) and 18,700 tonnes (Denmark). In value terms, their share on total was even larger (46%). In Denmark, cod was sold at 2.46 EUR/kg, a slightly lower price than in 2013. However, cod landings were worth EUR 50 million, which was 12% more than the previous year. As to Spain, both price and value rose substantially: the average price was at 2.98 EUR/kg (+19%), for a total value of EUR 56 million (+27%).

EU landings of blue whiting benefitted from a sharp TAC increase (+77%) and grew significantly in 2014, reaching their 6-year peak at 292,000 tonnes and EUR 93 million. Compared with 2013, the increase was 68% in volume and 26% in value. Price remained on the downward trend started in 2012 and reached 0.32 EUR/kg, representing a 25% drop over the previous year and a 72% drop over 2011, when the peak of 1.14 EUR/kg was observed.

Almost 60% of blue whiting was landed in Denmark, which totalled 173,840 tonnes in 2014, for a value of EUR 32 million. This represented a continuation of the upward trend started in 2013, after the low levels during the period 2009-2012, where volumes averaged 2,360 tonnes and values EUR 465 thousand. While the other Member States use blue whiting for human consumption, Denmark uses it almost entirely for fishmeal production.

In 2014, landings of this commodity group reached the lowest amount in eight years, at 547,300 tonnes and EUR 1,15 billion. This represented a drop of 14% in volume and of 5% in value in comparison with 2013.

On the other hand, 3 of the top-5 species registered an increase in 2014. Nevertheless, if we look at price variations, a decline can be observed for all, with the only exception of European seabass.
Landings of monk increased by 4% in volume and by 1% in value, totalling 44,403 tonnes and EUR 221 million.

France is the Member State where most of monk is landed, representing 44% of the EU total. In 2014, French landings amounted to 19,600 tonnes worth EUR 95 million, with volume and value slightly declining in comparison with the previous year.

The growth at EU level was caused by the rise registered in Ireland, where, after the 2013-drop, landings of monk totalled 5,500 tonnes, for a value of EUR 22 million, both increasing by 66%. The increase was due to a higher number of landings from French and Spanish vessels.

In 2014, landings of ray were at their lowest level of the last decade. They totalled almost 20,000 tonnes worth EUR 42 million, which resulted drops by 7% and 10%, respectively in volume and value. The responsible for this drop was the 57% decline that occurred in Portugal between 2013 and 2014, with volumes plunging from 2,372 to 1,000 tonnes and values decreasing from EUR 4 million to EUR 2.5 million.

The most significant Member States were France and Spain, landing 6,570 and 6,400 tonnes of rays respectively, in 2015. While in France ray was sold at 2.19 EUR/kg, the price in Spain was 1.93 EUR/kg, both declining compared to 2013. The EU-average price was at 2.10 EUR/kg, 4% lower than in 2013. However, still slightly above its 10-year average.

The main Member State landing European seabass is France, covering 64% of total volumes and 67% of total values in 2014. The drop observed in this country in 2014 triggered the one registered at EU level. European seabass landed in the EU amounted to around 7,000 tonnes (-16%) and EUR 79 million (-6%).

Nevertheless, a 11% increase was registered in the EU-average price, from 10,03 to 11,13 EUR/kg. This reflected the trend in France, where the price rose from 10,35 to 11,64 EUR/kg (+12%).

In 2014, the tuna landed in the EU reached its 10-year peak at 513,000 tonnes, and over EUR 1 billion, continuing the upward trend started in 2011.

Skipjack and yellowfin tuna are the most landed species of this group, representing 75% of the 2014 total. However, in value terms, their share on total was lower (56%). By including swordfish, the percentage grows to 76%, as this tuna-like species is one of the highest valued.

EU landings of skipjack tuna totalled 243,000 tonnes and were worth EUR 279 million in 2014. This was a 40% boost in both volume and value, consisting of 69,350 tonnes and EUR 79 million more than in 2013. These represented also the peaks of the 2005-2014 decade.
Almost all (99%) skipjack tuna landed in EU ports was landed in Spain, at 1.15 EUR/kg. Lower amounts were landed in Portugal, i.e. 2,000 tonnes sold at 1.24 EUR/kg, and France, where 25 tonnes were sold at 0.41 EUR/kg.

Spain also happened to be the EU Member State where almost all yellowfin tuna is landed (99.7% of 2014 total). With 143,470 tonnes worth EUR 313 million, the 10-year peaks were reached in 2014, marking a remarkable growth by 49,000 tonnes and EUR 99 million in comparison with 2013. The average price fell, albeit slightly (-3%), going down from 2.26 to 2.18 EUR/kg. In this case too, France and Portugal followed suit, the first reporting 341 tonnes sold at 3.93 EUR/kg, the latter 60 tonnes sold at 3.74 EUR/kg.

EU landings of swordfish amounted to 34,000 tonnes and EUR 211 million. These represented 10-year peaks in both volume and value. Compared with 2013, while volumes increased marginally (+1%), the growth in value was 7%. Spain is the Member State where swordfish is landed the most. It accounted to 27,000 tonnes and EUR 151 million, the highest amounts of the last decade. It was sold at 5.57 EUR/kg, 6% increasing in comparison with 2013.
Aquaculture production in the EU\(^6\) totalled 1.28 million tonnes in 2014, a 96,000 tonnes or 8% increase over 2013. This marked a reversal of the decreasing trend that had been noted since 2009.

The value of the EU’s aquaculture production also increased, reaching a 10-year peak of EUR 3.96 billion, which was EUR 75 million or 2% more than in 2013.

The value growth of salmon led the overall 5% or EUR 79 million increase of salmonids between 2013 and 2014. With respect to two years before, the growth was of 21% or EUR 271 million. Value of other marine fish grew by 5% during 2013-2014, thanks to a EUR 25 million increase registered for gilt-head seabream. Bivalves and freshwater fish reported minor declines between 2013 and 2014.

During 2013-2014, the production of bivalves rose by 75,400 tonnes. This increase was mainly due to an increase in mussels farmed in Spain (+58,400 tonnes), which marked recovery from a 2013 production shrinkage caused by “red tide” or algae blooms. Salmonid production also increased from 2013 to 2014, reporting a 24,000-tonne growth, mainly attributable to increased farming of salmon (+16,500 tonnes) and trout (+7,700 tonnes).

\(^{15}\) Details on the sources used can be found in the Methodological Background, page III

\(^{16}\) 2013 and 2014 data are for EU-28
As shown in chart 76, the top-10 species represented 94% of total values of farmed products in 2014. This share has been the same since 2005, although the two most valuable species, salmon and trout, have switched their ranking over the last years. This switch reflects the significant increase of salmon production in the UK and substantial production drops in some of the major rainbow trout-producing countries, e.g. Spain and Germany. It is worth highlighting the increasing market relevance of turbot, especially in 2013 and 2014.
Between 2013 and 2014, four of the main farmed species registered increasing values. This included salmon (+EUR 65 million), trout (+EUR 16 million), gilt-head seabream (+EUR 25 million) and mussels\textsuperscript{17} (+ EUR 23 million).

Clam and bluefin tuna reported significant falls of EUR 32 million and EUR 16 million, respectively. Clam’s value decreased from EUR 174 million to EUR 142 million, while Bluefin tuna declined from EUR 183 million to EUR 167 million.

Spain and the UK, the main EU producers of farmed products in volume, saw an overall upward trend in 2014, with both reaching 10-year value peaks for farmed production. Spain’s 2014 volume of 285,000 tonnes with a value of EUR 472 million represented an increase of 58,700 tonnes and EUR 42 million over 2013, due to the major increase in the value of its mussel production. The UK’s aquaculture products totalled 214,000 tonnes and EUR 953 million, an increase of 11,300 tonnes and EUR 56 million over 2013, mostly driven by farmed salmon.

\textsuperscript{17} Including mussel mytilus spp. and other mussels
France’s farmed products reached EUR 730 million, an increase of EUR 17 million over 2013. This was due to rising values of trout and mussels, which reached EUR 115 million and EUR 139 million, respectively, in 2014. Total volumes of France’s farmed products of 204,000 tonnes represented a 3,000-tonne increase.

The other major producers, Italy and Greece, reported 148,700 and 104,400 tonnes each, with values of EUR 366 million and EUR 444 million, respectively. For Italy, this represented a 7,800-tonne increase but a EUR 27 million loss, mostly due to falling values of clam, which dropped EUR 21 million, reaching EUR 106 million, in spite of a 12,000 tonnes volume increase, and of trout which dropped EUR 15 million, reaching EUR 93 million. Greece reported opposed variations, as volumes decreased by 9,700 tonnes but values grew by EUR 5 million. This was mainly due to gilthead seabream’s trend, falling 5,000 tonnes in volume, to reach 50,700 tonnes, but growing EUR 10 million in value to reach EUR 240 million.

Sharp value variations were observed in some other relevant producing countries. Drops for eel and mussel in the Netherlands, of EUR 8 million and EUR 7 million, respectively, and for trout in Germany, of EUR 7 million, led to Netherlands and Germany having 11% and 13% value decreases, respectively, of farmed production.

On the other hand, trout value grew by EUR 8 million in Poland, generating an overall 18% increase in value of Polish aquaculture production.

Also in volume terms, 75% of total EU aquaculture production is represented by the top 5 countries. With the exception of Greece, they all reported production increases between 2013 and 2014. However, the decade trend shows that France and Italy both experienced...
remarkable drops of 41,000 tonnes and 32,000 tonnes, respectively, mainly due to production shrinkage of oyster and clam.

Table 19


Source: EUMOFA based on elaboration of EUROSTAT, National sources and FEAP data

<table>
<thead>
<tr>
<th>Member State</th>
<th>2005</th>
<th>2013</th>
<th>2014</th>
<th>% variation 2014/2013</th>
<th>% variation 2014/2005</th>
</tr>
</thead>
<tbody>
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<td>221</td>
<td>226</td>
<td>285</td>
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<td>+29%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>173</td>
<td>203</td>
<td>215</td>
<td>+6%</td>
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<tr>
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<td>245</td>
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<td>204</td>
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<td>-17%</td>
</tr>
<tr>
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<td>149</td>
<td>+6%</td>
<td>-18%</td>
</tr>
<tr>
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<td>114</td>
<td>104</td>
<td>-8%</td>
<td>-2%</td>
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</table>

In 2014, EU production of bivalves increased 14%, reaching 609,600 tonnes. However, its value of EUR 1 billion was slightly lower than in 2013.

The value of farmed mussels reached a 10-year peak of EUR 438 million, an increase of EUR 23 million compared with 2013. Mussel volume reached 475,000 tonnes, totalling 68,000 tonnes more than 2013.

EU growth was driven by Spain, the major producer, which had its highest ever production in 2014, reaching 220,450 tonnes with a value of EUR 110 million. This was a significant 38% rise over 2013, when “red tide” or algae blooms caused production to drop. However, price remained basically the same, moving from 0,49 in 2013 to 0,50 EUR/kg in 2014. Dutch mussel price fell a dramatic 38%, from 1,96 to 1,22 EUR/kg. The price drop was in response to its great increase in volume – from 37,100 to 54,100 tonnes – which brought it back to 2010 price levels, when production also far exceeded the 50,000-tonne mark. Prices grew in other relevant countries, namely France and Italy, with France seeing a slight 4% increase, from 1,78 to 1,85 EUR/kg, and Italy observing a 13% growth, from 0,69 to 0,78 EUR/kg, while production volumes remained almost stable in both countries.

Oyster value reached EUR 445 million for 91,500 tonnes in 2014, representing over 40% of total bivalve value. In volume terms, it was the lowest amount registered in the last decade. The price of 4,86 EUR/kg was 33% above the 10-year average but stable compared with the previous year (+0,8%).

The production shrinkage at EU level was due to the decrease observed in France, the main producer, which had a fall of almost 3,000 tonnes in 2013. In fact, after a decrease of more than 40,000 tonnes due to a virus which caused mass mortality in juveniles at the end of the years 2000, the French production was then hit by a bacteria which caused mortality in several basins during the summer of 2013. The 2013-2014 volumes presented a slight decrease, but this did not have much impact on the price, which moved from 5,02 to
Aquaculture production

5.07 EUR/kg. However, this price is triple the price paid 15 years ago (1.65 EUR/kg in 2000), when the production volume was 136,000 tonnes (against less than 77,000 tonnes in 2014).

Oyster prices skyrocketed in the Netherlands, generating a EUR 4 million increase, mainly based on the value of Dutch cupped oysters.

<table>
<thead>
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<th>Member State</th>
<th>2013</th>
<th>2014</th>
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<td>5.02</td>
<td>5.07</td>
<td>+1%</td>
</tr>
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<td>Ireland</td>
<td>4.62</td>
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<tr>
<td>Spain</td>
<td>4.05</td>
<td>4.01</td>
<td>-1%</td>
</tr>
</tbody>
</table>

Table 20
Prices of oyster in main producer countries (EUR/kg)
Source: EUMOFA based on elaboration of EUROSTAT, National sources and FEAP data

Clam

In 2014, clam volumes increased by 11,000 tonnes, to reach 41,000 tonnes and EUR 142 million.

Clam’s EU average price reached its lowest level of the last ten years in 2014, at 3.46 EUR/kg. This was a 41% drop from the 2013 price of 5.82 EUR/kg.

Italy, the main producer representing 89% of total, drove this phenomenon. In 2014, the price fell by 44% to 2.91 EUR/kg and values declined by over EUR 21 million. In volume terms, Italy experienced a 12,000-tonne recovery from the 2013 22% fall that had been generated by changes in the environmental conditions, especially when excessive entry of fresh water led to a decline in the salinity of the clam development and growing area.

Salmonids

Salmonids were responsible for EU aquaculture production reaching its value peak in 2014 when their volume reached 387,000 tonnes with a value of EUR 1.56 billion. This represented 39% of the value of all products farmed.

More specifically, the value of salmon farmed in the UK led the overall increase observed for salmonids and, in turn, led the value of EU aquaculture production. As shown in chart 80, its values have been rising an average of 14% a year since 2009. In 2014, volumes were at 179,400 tonnes for a value of EUR 861 million. The 5.6 kg mean weight at harvest was the highest ever, and its price of 4.80 EUR/kg was only slightly less than the 4.89 EUR/kg reached in 2013, which was the highest price of the last decade. Production of organic salmon fell by 31% to 3,600 tonnes. Ireland’s salmon production marginally improved after a 20% fall in 2013, reaching 9,400 tonnes of mostly organic salmon with a value of EUR 58 million in 2014.
Trout production rose during 2013-2014 in both volume and value terms. Totals of 191,000 tonnes and EUR 604 million, represented increases of 7,700 tonnes and EUR 16 million. Denmark, France and Italy, the main producers, were represented for 19%, 18% and 17% of trout total value, respectively. While Italy reported an 11% decline to 33,000 tonnes and EUR 93 million in 2014, production rose in Denmark and France. This was notable in Denmark where a 21% increase to reach 36,000 tonnes and EUR 107 million surpassed Italy, which had been the main producer since 2006.

Denmark leads the EU production of organic trout, with a volume of 1,080 tonnes in 2014.

Two species of this group, namely gilt-head seabream and European seabass, rank fourth and sixth in values of farmed products in the EU. Both are mainly produced in Greece and Spain.

In 2014, value of gilt-head seabream reached a ten-year peak at EUR 434 million, which was a 6% increase from 2013. Volumes, however, reached only 86,400 tonnes, representing a 7% decrease.

In Greece and Spain, 2013-2014 volumes fell by 9% and 10%, respectively. However, values increased 5% in Greece and 7% in Spain, as prices grew from 4.11 to 4.73 EUR/kg in Greece and from 4.07 to 4.87 EUR/kg in Spain.
EU production of European seabass declined slightly during 2013-2014. However, seabass value reached a 10-year peak, with 63,000 tonnes having a value of EUR 371 million.

In Greece and Spain, the two main countries, seabass production had a dissimilar trend. In Greece, volumes dropped 8% to 32,000 tonnes while values fell by only 3%, from EUR 179 million to EUR 173 million, thanks to a 5% price increase, from 5,14 to 5,39 EUR/kg. On the other hand, Spain reported a 12% increase in volume, reaching 17,000 tonnes. Values grew to a 10-year peak of EUR 100 million, 8% more than in 2013, in spite of prices dropping 4%, from 6,19 to 5,96 EUR/kg.

This group of species remained unchanged in terms of production during 2005-2014. Focusing on the last two years, a variation was registered in values, as they decreased by EUR 12 million reaching EUR 263 million. Volumes were at 104,000 tonnes, only 150 tonnes more than in 2013.

Carp, which accounted for almost 80% of freshwater fish farmed, drove the overall stable path of freshwater fish production during the decade. Indeed, carp volumes stood almost flat, totalling 80,000 tonnes in 2014 and 79,500 tonnes in 2013. Its value accounted for EUR 150 million, which was EUR 2 million less than in 2013. Price fell a slight 2%, from 1,91 to 1,87 EUR/kg.

The main EU carp producers in 2014, Poland and the Czech Republic, accounted for 19,000 tonnes worth EUR 38 million and 18,600 tonnes worth EUR 37 million, respectively. Hungary followed, with a total of 12,000 tonnes and EUR 22 million.

As for other species, 2014 eel values dropped 21% to EUR 42 million, the lowest amount of the last ten years, while volume also dropped 5% to 5,200 tonnes. The Netherlands, the main producer, was the driver of this phenomenon.
6.1 Most relevant market trends

**Salmon**

Harvest of salmon by EU Member States remained mostly stable from 2014 to 2015. Volumes from the UK were slightly down from 2014 but, to a large extent, compensated by higher volume from Ireland. Despite a moderate 2% increase in European harvest of farmed salmon in 2015, the Russian import ban, combined with the weak Norwegian krone, made the competition hard on the EU market and on the main markets outside the EU. The strong GBP worsened the situation for the UK salmon farming industry, contributing to drops of 17% and 22% in export volumes and values (measured in local currency), respectively. Prices for Irish fresh farmed salmon rose by 9% from 2014 to 2015. On average, prices for fresh salmon fell 2% on the EU market from 2014 to 2015. European salmon production is not expected to show growth in 2016, primarily due to a decline in Norwegian harvests. The EU producers are expected to increase their harvests, but marginally.

**Trout**

Depressed market prices in 2013 and 2014 led the main trout producing Member States, led by Spain and Denmark, to file a dumping/subsidy complaint, accusing Turkey of unfair competition. In the first quarter of 2015, the European Commission imposed a 9.5% anti-subsidy duty. Wholesale prices for farmed trout in the EU showed an upward trend from 2014 to 2015.

In Denmark, one of the largest producers of organic rainbow trout in the EU, production reached 1.080 tonnes in 2014. The industry expects to double production in a few years, driven by strong demand and fair profit margins.

**European seabass and gilt-head seabream**

Even though seabass and seabream farmed in the Mediterranean are distinctly different species, they are normally produced together, which is why they are discussed under the same heading here. Their consumption in the EU increased, as is evident in the 10% increase in total traded volumes to main markets from 2010 to 2015. Yet, at the same time, the EU-based production is trending downwards or remaining flat, due to a drop in production and a downward trend in Greece, the largest EU-based bass and bream producer. And, even though there is an upward production trend in Spain, the next large producer, it is not enough to compensate for the Greek drop.

From its peak in 2010, exports from Greece to main EU markets have dropped about 20%, while Turkish exports have increased 200% during the same period. Indeed, in 2010, Turkey exports to main EU markets were 13% of those of Greece, while in 2015 they represented 50% and are trending strongly upwards.

In particular, Greek exports to Italy dropped 22% from 2010 to 2014 in volume, but trended relatively flat, registering a decrease of 1% from 2014 to 2015, and remained the markedly strongest supplier. At the same time, Turkish volumes increased 128% from 2010 to 2015, and by 38% from 2014 to 2015.
Greek exports to Northern European markets, such as the UK and Germany, dropped 49% and 6%, respectively, from 2010 to 2015. On the other hand, Turkish exports increased 496% to the UK (from 652 to 3,887 tonnes) and 1,860% to Germany (from 41 to 2,582 tonnes), over the same period. Netherlands is another developing market where Turkey has expanded, with exports increasing 236% (from 2,964 tonnes in 2010 to 9,965 tonnes in 2015). During the same period, Greek exports increased 17% (from 1,871 to 2,183 tonnes). Hence, one can conclude that the growth in Northern European markets is mainly supplied by Turkey.

Globally, retail prices for oysters reached a historic peak in 2015, and oyster producers worry about potential negative reaction from consumers. However, in the first nine months of 2015, several of the largest oyster markets saw an increase in imports, including the U.S., which increased imports by 1,000 tonnes. For the U.S., this was mainly because of lower domestic landings (wild oyster). Import prices from the EU saw a 28% growth in 2015 over 2014, at 9,15 EUR/kg. For the two largest markets, the UK and France, the price...
Aquaculture production

increased by 14% to 7.26 EUR/kg, and by 34% to 8.64 EUR/kg, respectively.

In 2015, oyster production in Ireland saw a 25% boost over the previous year, reaching 40,140 tonnes. More than 90% of the Irish production is exported, mainly to France (88%), but also to Hong Kong and China. Irish oyster was highly welcomed in the two eastern markets, where it received the highest price for oyster sold in this region.
In 2014, the EU fish processing industry continued to confirm sales growth in value from 2009 (+2% from 2013 and +28% from 2009). It registered a -2% decrease from 2013 in terms of volume.

The EU mainly processes salmonids, tuna and a category “miscellaneous aquatic products”, around 60% of which is whitefish. In terms of value, these products accounted for 83% of the total EU fish processing in 2014.

Value of the whitefish products processed in 2014 reached EUR 11.6 billion for a 4% increase from 2013. UK, France, Spain and Germany were together responsible for 66% of the total EU whitefish processed. Cod, the most important source of whitefish for the EU processing industry, is widely used in UK, France and Spain. Around 50% of the raw material available for the industry is whole fish, in product forms fresh, frozen or wet-salted/dry-salted.

Alaska pollock and hake are the next most important whitefish species for the processing industry. Germany dominates the imports of Alaska pollock raw material (fillet block and mince block). Spain and to some degree, France, dominate the processing stage for hake, relying on both EU catches in the form of fresh whole and on imports of frozen whole and frozen fillets. Of the major processing Member States, only France has been increasing its whitefish processing since 2010. Salmonids were mainly processed in France, Poland and the UK covering 73% of the EU total. Between 2013 and 2014, processed salmonids increased 7% in value, mainly generated by 32% of the UK improvement. Salmon was mainly processed smoked (94%). In 2013, the value of salmonids processed products in the EU exceeded that of tuna.

Tuna products were mainly processed in Spain and Italy were responsible for 89% of the total tuna processed in value. Since 2013, tuna production has decreased in Spain and Italy by 6% and 2% respectively.

Non-food use registered a significant drop from 2013.

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18 This chapter is elaborated on data from the Eurostat PRODCOM database. According to PRODCOM data, processed seafood includes all products that have been “altered” in some way, such as filleted, frozen, salted or smoked.
In 2014, the EU fish processing industry amounted to EUR 19,85 billion, increasing 2% from 2013.
Chart 88
Most important processing countries in value and % variation (2014/2013)
Source: EUMOFA based on elaboration of EUROSTAT - PRODCOM data

Chart 89
Composition of processed fish products sold in the EU (value, 2014)
Source: EUMOFA based on elaboration of EUROSTAT - PRODCOM data

Chart 90
Composition of processed fish products sold in the EU (volume, 2014)
Source: EUMOFA based on elaboration of EUROSTAT - PRODCOM data

Pelagics (large and small) represent 18% of the processed fish sold in the EU
The EU processing sector relies heavily on imported raw materials. It is particularly dependent on external sourcing for whitefish, salmonids, tuna and shrimps, while it almost fully covers its needs for flatfish and small pelagics.

The main whitefish species supplied by the EU fishing fleets (cod, hake, saithe, haddock, redfish) meet only a small percentage of the market needs, providing between 10% for cod and 30% for haddock.

For some major species used by the EU processing industry and not exploited by the EU fishing fleet (Alaska pollock, hoki), imports are the only way to supply the industry market.

The group “miscellaneous aquatic products” comprises different products which are not ascribable to specific species, but only to macro groups of products. Whitefish, which accounts for 60%, plays a pivotal role in this grouping. According to the definition of the European Fish Processors Association (AIPCE-CEP), EU whitefish includes seven key species: cod, haddock, redfish, saithe, hake, Alaska pollock, hoki (grenadiers) and pangasius. In terms of volume, miscellaneous aquatic products remained stable at 2.6 million tonnes in 2014, while in value, they increased by 4%, from EUR 11.1 billion in 2013 to EUR 11.6 billion in 2014. The most important product categories in terms of volume sold were frozen whole fish, representing 25% of the total processed products, followed by fish fingers in batter or breadcrumbs which represented 14%. In terms of value, the main categories were fresh or chilled fish fillets and other fish meat without bones, prepared meals and dishes based on fish, crustaceans and molluscs, and prepared or preserved crustaceans, molluscs and other aquatic invertebrates. These three categories covered 45% of the entire miscellaneous aquatic processed products.

Fresh/chilled fish fillets, which account for 22% of the total processed products, are mainly supplied by the UK and France, with values of EUR 603 million and EUR 569 million, respectively, amounting to 54% of the total. Since 2010, the UK processed production increased 10% in volume and 27% in value. In 2014, UK prices increased from...
10.22 EUR/kg to 11.26 EUR/kg. On the contrary, France peaked in volume and in value in 2012 but, in 2014, decreased by 2% in value and 3% in volume while prices increased slightly from 6.10 EUR/kg to 6.18 EUR/kg.

Prepared fish meals were mainly processed in France and the UK, which accounted for 75% of the total volume in the category. France led in processing of miscellaneous aquatic products, with EUR 656 million of prepared fish meals, a 19% increase over 2010. Since 2011, these two countries have been increasing their production of prepared fish meals both in volume and value. In 2014, prices increased from 5.83 EUR/kg to 6.03 EUR/kg in France, and from 9.45 EUR/kg to 10.10 EUR/kg in the UK.

Germany and the UK, leaders in processing fish fillets and fish fingers in batter or breadcrumbs, covered 70% of the total value sales. In 2014, the UK was the largest producing country for fish fingers, followed by Germany. After decreases in 2013, both the UK and Germany continued to increase their production of fish fingers in 2014. During the same period, prices remained stable in the UK and decreased in Germany, from 2.97 EUR/kg to 2.85 EUR/kg.

Portugal accounted for 234,000 tonnes of processed fish products with a value of EUR 930 million in 2014. Its most important product category, frozen whole fish, reached around EUR 273 million, a 14% increase from 2013, with a volume of 83,000 tonnes. This was followed by the dried fish category (i.e. dried salted cod), which increased to EUR 248 million and 49,000 tonnes. The other major segment of the Portuguese processing industry is canned fish which decreased 3% in value and increased 4% in volume from 2013. All species have shown a fall in value, with tuna decreasing by 3%, sardine by 13% and mackerel by 8%.
Non-food use production is essentially the manufacture of fishmeal, which is used as an ingredient in feed for pigs, poultry and aquaculture species, and of fish oil, which is used mainly in the cosmetics sector. Denmark, the major producer of these products, is responsible for 76% of total sales. At EU level, the production of non-food use products registered a fluctuant trend from 2010, registering its value peak in 2013 with around EUR 777,000.

During 2010–2014, tuna and tuna-like species (prepared and preserved tuna, skipjack, and Atlantic bonito) had an upward trend in both volume and value with increases of 10% and 15%, respectively. Despite this increase, in 2014 tuna has become the 3rd species sold, exceeded by salmon: while volume continued to increase, value diminished moving from EUR 2,36 billion to EUR 2,24 billion. In 2013, tuna and tuna-like species was the second-largest commodity group after salmonids in the ranking of processed products sold in the EU.

Spain, the leader in terms of processed canned tuna, covered 67% of the total. In 2014, Spain production decreased by 6% in value while increasing by 5% in volume, due to a significant price fall, from 6,17 EUR/kg in 2013 to 5,51 EUR/kg in 2014.

Italy was the second largest canned tuna producer, although its EUR 506 million value was a slight 2% decrease from 2013.

Small pelagics

Since 2010, processed small pelagics sold in the EU have increased by 24%. However, this group registered a 3% decrease in value and in volume between 2013 and 2014. Herring, the most important species sold, accounted for 41% of the total small pelagics processed, followed by sardines and sprats, which together represented 28% of the total small pelagics processed.

Germany and Poland account together for 89% of the total herring products. Germany registered the highest value in 2014, with EUR 283 million for 69,000 tonnes. Poland continued to record the highest volume since 2010, reached around 102,000 tonnes worth EUR 253 million in 2014. Prices slightly increased in Germany, rising from 3,97 EUR/kg in 2013 to 4,09 EUR/kg in 2014, but they decreased in Poland, dropping from 2,62 EUR/kg in 2013 to 2,49 EUR/kg in 2014.

France led the EU in production of canned mackerel. Its output valued at EUR 115 million accounted for 48% of EU’s total production.

Spain, the main producer of preserved anchovies, was responsible for 72% of total prepared anchovy production in 2014. Its EUR 112 million value represented a 9% increase from 2013, while prices decreased from 11,80 EUR/kg in 2013 to 11,19 EUR/kg in 2014.

As for canned preserved sardines and sprats, Spain, France, Latvia and Portugal covered 77% of total values. Their 3% decrease in value was mainly due to a 10% decrease in sales in Latvia (essentially sprats), which was strongly impacted by the Russian ban on EU exports.
In 2014, sales of processed salmonids in the EU exceeded those of prepared tuna, becoming the second group after miscellaneous aquatic products. An upward trend has been registered since 2010 for salmonids products.

France and Poland have led the salmon smoking industry since 2011, accounting for values of EUR 829 million and EUR 705 million respectively in 2014. After peaking in 2013, France registered a 5% decrease in value and 10% reduction in volume in 2014, with prices rising from 20.64 EUR/kg to 21.78 EUR/kg. In the same period, Poland registered a 6% reduction in volume but a 5% improvement in value, with prices moving from 12.20 EUR/kg to 13.59 EUR/kg. The price differential between Poland and France narrowed in 2014.

The UK and Spain both reported increases in their smoked salmon production. UK production increased 32% in value and 20% in volume, registering of EUR 347 million. In the same period, Spain increased 11% in volume and decreased 15% in value.

The molluscs commodity group includes bivalves and cephalopods. In 2014, it registered EUR 667 million, a 5% value increase from 2013, while volume sold increased 4%, generating a slight increase of prices from 3.99 to 4.04 EUR/kg.

Spain contributes 60% of total EU production of processed molluscs (frozen cephalopods and canned bivalves), which has significant impact on the overall positive trend at EU level. In 2014, Greek production exceeded that of Italy, making it the EU’s second most important producing country, responsible for 9% of scallops, mussels, cuttlefish, squid and octopus, (frozen, dried, smoked, salted or in brine).

Italy registered a significant 38% drop in value and 57% drop in volume, its lowest level since 2010. The drop was possibly due to the decrease of raw material supplies from Vietnam and to the effects of the 22% decrease of internal production in 2013 that was generated by reduced salinity in clam-growing areas.

In terms of value, frozen crustaceans (mainly tropical shrimp and Norway lobster) registered EUR 618 million in 2014, the peak of a trend from 2010. Spain and the UK represented 68% of total processed crustaceans, with values of EUR 287 million and EUR 177 million, respectively. In 2014, prices grew from 6.21 to 6.78 EUR/kg Spain, but declined from 9.96 to 9.21 EUR/kg in the UK.

After France reported a decrease in 2013 in terms of value, its production of frozen crustaceans increased by EUR 9 million to reach EUR 75 million in 2014, while volume decreased by 4%. Prices boosted from 9.59 EUR/kg to 11.33 EUR/kg, partly in relation to a higher share of Norway lobsters in overall crustaceans production.