



E U M O F A

European Market Observatory for
Fisheries and Aquaculture Products

No. 11/2017

MONTHLY HIGHLIGHTS

CONTENTS

First sales in Europe

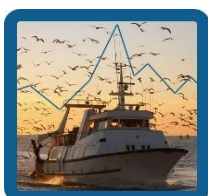
Focus on albacore tuna (Italy, Spain)
and ling (Denmark, Norway, the UK)

Global Supply

Case study: The Swiss Market for Fisheries
and Aquaculture Products; Crab in the EU

Consumption: Plaice in Denmark, the
Netherlands, and the UK

Macroeconomic context



Find data, information,
and more at:
www.eumofa.eu

Follow us on twitter:
[@EU_MARE](https://twitter.com/EU_MARE) [#EUMOFA](https://twitter.com/EUMOFA)

In this issue

In January–October 2017, first-sales value of cod increased in Latvia, Norway, and Italy, whereas it decreased in rest of the countries compared to the previous year. France and Denmark experienced a higher first-sales price for hake and lower prices for plaice and herring. The first-sales price of sardine increased in France and Italy, but decreased in Spain and Portugal.

In the past three years, first-sales prices of ling ranged from 1,69 to 3,02 EUR/kg in Denmark, from 0,66 to 1,87 EUR/kg in Norway, and from 1,18 EUR/kg to 2,83 EUR/kg in the UK. On average, the highest prices (2,14 EUR/kg) were registered in Denmark, 14% higher than in the UK. In a three-year period, the annual average first-sales price of albacore tuna in Italy was 3,46 EUR/kg, approximately 7% higher than in Spain (3,22 EUR/kg).

The EU Member States reached an agreement on fishing opportunities for 2018 in the Atlantic, North Sea and Black Sea after negotiations at the Agriculture and Fisheries Council on 11–12 December.

Switzerland is an important trade partner for EU fish and seafood products. Because domestic production remains limited (ca. 3.600 tonnes in 2015), the Swiss fish market depends greatly on imports, mostly from EU Member States. In 2016, EU exports of fish and seafood to Switzerland reached EUR 437 million for 50.000 tonnes.

The total volume of crab landed and imported to the EU was 67.500 tonnes in 2016. The intra-EU trade consists mainly of fresh and frozen whole crab, while the extra-EU imports consists mainly of prepared and preserved crab products as well as frozen whole crab.

In January–September 2017, the average retail prices of fresh plaice for household consumption in Germany and the Netherlands were 14,69 EUR/kg and 12,05 EUR/kg, respectively. In the UK, the average price was 10,39 EUR/kg.

1. First sales in Europe

In **January–October 2017**, nine EU Member States and Norway reported first-sales data for 11 commodity groups¹. First-sales value increased over the previous year (January–October 2016) for France, Italy, and Latvia. An opposite trend was experienced in Denmark, Estonia, Norway, Portugal, Spain, Sweden, and the UK. First-sales value remained stable for Belgium.

In **Belgium** in **January–October 2017**, first sales remained stable in value, whereas they decreased in volume (–3%) from the same period in the previous year. Compared with January–October 2016, the significant decrease in value recorded for the main species, sole (–11%) and shrimp *Crangon* spp (–9%), was more than offset by positive trends observed for some of the other major species: plaice (+4%), monk (+21%), and turbot (+39%). In **October 2017**, first sales increased in value (+25%) and in volume (+18%). For the top species, value and volume increases for cuttlefish (+71% and 55%, respectively), sole (+33% and +29%), plaice (+25% and +4%), turbot (+54% and +76%) and ray (+26% and +31%). The average price increased substantially for plaice (+20%) and cuttlefish (+10%), whereas it decreased for shrimp *Crangon* spp. (–30%) and turbot (–13%).

In **Denmark** in **January–October 2017**, first-sales value was EUR 282 million, a 7% decrease from January–October 2016, whereas volume increased slightly (+1%) to 211.960 tonnes. Lower prices of herring (–21%), cod (–5%), plaice (–9%), Norway lobster (–17%), and saithe (–11%) contributed to the decrease in value, whereas larger catches of herring (+5%) and saithe (+2%) contributed to the positive overall volume. In **October 2017**, the decrease from October 2016 in first-sales value was caused mainly by mackerel (–1%), herring (–56%), and cod (–22%). Greater first-sales volume of mackerel (+24%) and mussel *Mytilus* spp. (+11%) did not offset the overall decrease in volume caused mainly by herring (–23%), plaice (–29%), and cod (–34%).

In **January–October 2017**, **Estonia** saw decreases in both first-sales value and volume (–4% and –1%, respectively) from the same period a year before. Pike-perch (–54% in both value and volume) and sprat (–7% in value and –3% in volume), were the cause of the decrease. In **October 2017**, the decrease in value (–3%) from October 2016 was tied to herring (–19%) and European perch (–9%), whereas the increase in volume (+3%) was mainly the result of sprat (+16%).

In **France** in **January–October 2017**, first sales experienced a small increase (+1%) in value but remained stable in volume compared with January–October 2016. In **October 2017**, first sales increased slightly in both value (+4%) and volume (+3%) owing to sole (+8% and +20%, respectively), cuttlefish (+32% and +21%), and hake (+29% and +24%). The other top species of the month, monk and scallop, recorded variations of low amplitude or remained stable in value, compared with October 2016. The greatest decrease in average price was recorded for sole at 10,86 EUR/kg (–10%), whereas squid experienced the opposite trend, reaching 6,37 EUR/kg in October 2017 over 5,71 EUR/kg (+12%) registered a year before in relation with a strong decrease of volumes (–23%).

In **Italy** in **January–October 2017**, first sales increased in both value and volume (both +3%) over the same period in 2016. The increase was mainly the result of deep-water rose shrimp (EUR 1 million, +3%), clam (EUR 3,6 million, +15%), and swordfish (EUR 2,9 million, +23%). Other species contributing to the increase in value were cuttlefish (EUR 0,2 million, +2%) and octopus (EUR 1,5 million, +14%). In **October 2017**, a negative trend was recorded in value and volume (–3% and –6% from October 2016, respectively). This was mainly the result of deep-water rose shrimp (EUR 0,74 million, –21%), anchovy (EUR 0,17 million, –6%), as well as clam (EUR 1 million, –46%) and squid (EUR 0,32 million, –27%). The increase in the average price of octopus (+10%), hake (+7%), and sole (+19%) did not prevent the overall decrease in value. Volume fell because of anchovy (–2%), sardine (–5%), and clam (–58%).

Latvia experienced increases in both first-sales value (+6%) and volume (+12%) in **January–October 2017**, over January–October 2016. This was caused mainly by sprat (+12% in value and +24% in volume), which accounted for approximately half of the landings. In **October 2017**, significantly lower first-sales value of cod (–2%), herring (–36%), and European flounder (–57%) contributed to the decrease in first-sales value (–14%) from October 2016. The same species experienced a decrease in catches that contributed to an overall decrease in volume (–11%). The highest average decrease in price was recorded for smelt (0,12 EUR/kg, –42%).

In **Norway** in **January–October 2017**, first-sales value decreased (–6%) to EUR 1,78 billion, while the volume increased 5% to 2,28 million tonnes. The decrease in value, despite an increase in volume, was caused mainly by lower first-sales prices for herring (–17% in value, +16% in volume), mackerel (–10% in value, +6% in volume), and blue whiting (–41% in value, +17% in volume). In **October 2017**, first-sales value decreased 18%, whereas volume increased 3%. This was mainly caused by a lower first-sales price for mackerel (–17%) and cod (–24%). Among the top species, herring experienced the greatest decrease in average price: from 0,80 EUR/kg in October 2016 to 0,39 EUR/kg in October 2017 (–52%).

In **Portugal**, first sales decreased in **January–October 2017** in value (–1%) and in volume (–6%), from the same period in 2016. That was caused mainly by sardine, octopus, and horse mackerel. In **October 2017**, first sales increased in value (+4%) but decreased in volume (–7%) compared with October 2016. The top species in value, sardine (17% of total first-sales value in October 2016), recorded a significant increase in value, from EUR 2,2 million in October 2016 to EUR 2,8 million in October 2017. Among the main species in volume, mackerel (15% of total first-sales volume in October 2017), experienced a 66% decrease in first-sales volume from October 2016. The average price increase for octopus (+58%) contributed to the overall increase in the prices (+12%).

In **Sweden**, in **January–October 2017**, first-sales value and volume decreased from January–October 2016, ending at EUR 54,92 million (–26%) and 70.74 tonnes

(-23%). The strong decrease was mainly the result of a decrease in value and volume of herring (-15% and -16%, respectively) and sprat (-43% and -36%). In **October 2017**, the first-sales value decreased 44%, while volume increased 3%, ending at EUR 4,48 million and 7.500 tonnes. This was caused by the decreased value of herring (-45%), whereas volume increased because of sprat (+72%).

In the **UK in January–October 2017**, first-sales in both value and volume decreased 31% to EUR 457,73 million corresponding to 253.545 tonnes, compared with January–October 2016.

The decreases were mainly the result of the lower prices and catches of cod, crab, haddock, monk, mackerel,

scallop, and Norway lobster, among other species. In **October 2017**, first-sales value and volume were EUR 42 million and 25.510 tonnes. This was a decrease in both value and volume from October 2016 of 50% and 49%, respectively, caused mainly by the lower value of mackerel (-46%), scallop (-50%), Norway lobster (-51%), haddock (-30%), and cod (-32%). In October 2017, total average prices decreased mostly because of the average prices of mackerel (-14%) and Norway lobster (-8%).

The most recent first-sales data for **November 2017** available on EUMOFA can be accessed [here](#).

Table 1. **JANUARY–OCTOBER FIRST-SALES OVERVIEW OF THE REPORTING COUNTRIES** (volume in tonnes and value in million EUR)

Country	January–October 2015		January–October 2016		January–October 2017		Change from January–October 2016	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	14.544	54,71	13.392	52,52	12.995	52,53	-3%	0%
Denmark	228.930	270,86	209.692	302,64	211.962	282,33	1%	-7%
Estonia	43.310	9,92	37.226	8,97	36.671	8,66	-1%	-4%
France	166.289	544,66	161.435	541,88	160.634	545,82	0%	1%
Italy	74.183	265,61	71.416	263,98	73.570	271,39	3%	3%
Latvia	44.758	11,05	41.848	8,92	46.684	9,41	12%	6%
Norway	2.376.509	1.803,81	2.166.385	1.889,71	2.284.331	1.784,92	5%	-6%
Portugal	99.019	159,59	89.274	166,56	84.024	165,23	-6%	-1%
Sweden	137.964	81,80	91.990	73,83	70.743	54,92	-23%	-26%
United Kingdom	344.021	602,25	367.653	665,28	253.545	457,73	-31%	-31%

Source: EUMOFA (updated 12.12.2017); volume data is reported in net weight.

*Partial data. First-sales data for Italy covers 229 ports (approximately 50% of the total landings).

Table 2. **OCTOBER FIRST-SALES OVERVIEW OF THE REPORTING COUNTRIES** (volume in tonnes and value in million EUR)

Country	October 2015		October 2016		October 2017		Change from October 2016	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	1.872	6,21	1.200	4,97	1.419	6,20	18%	25%
Denmark	35.521	41,22	30.521	39,00	28.019	32,73	-8%	-16%
Estonia	5.268	1,31	3.268	0,85	3.379	0,82	3%	-3%
France	19.217	58,54	17.338	59,31	17.849	61,45	3%	4%
Italy	8.563	24,91	7.936	25,11	7.458	24,44	-6%	-3%
Latvia	7.734	1,88	5.568	1,09	4.979	0,94	-11%	-14%
Norway	248.999	243,17	230.540	266,74	236.929	217,74	3%	-18%
Portugal	12.427	14,05	10.684	15,48	9.954	16,11	-7%	4%
Sweden	6.598	7,19	7.298	7,97	7.491	4,48	3%	-44%
United Kingdom	52.614	78,37	49.545	85,62	25.514	42,50	-49%	-50%

Source: EUMOFA (updated 12.12.2017); volume data is reported in net weight.

*Partial data. First-sales data for Italy covers 229 ports (approximately 50% of the total landings).

1.1. FOCUS ON ALBACORE TUNA AND LING IN SELECTED COUNTRIES

1.1.1. ALBACORE TUNA



Albacore tuna (*Thunnus alalunga*) is a cosmopolitan species found in tropical and temperate waters of all oceans, including the Mediterranean Sea. Albacore is a smaller tuna species and economically important in commercial and recreational fisheries. There are three separate stocks in the Atlantic Ocean: the north and south stocks and a Mediterranean stock. It has a dark-blue back and a silver belly, and long pectoral fins. Its flesh is firm and dense. It is fast growing and matures at approximately 6 years, with a lifespan of 10–12 years. Albacore are top carnivores, and they prey opportunistically on schooling stocks of sardine, anchovy, mackerel, and squid. It has a common size of 60–80 cm. Albacore tuna is abundant in surface waters at 15–19 °C. The abundance of albacore tuna fluctuates during the year, and the fishing season takes place from July to October, when starts closure period which applies to longline vessels until 30th November each year².

Greece, Italy and Spain are the countries mainly involved in the Mediterranean albacore fisheries. The Spanish fleets catch albacore in the western Mediterranean in autumn, after the season in the Bay of Biscay ends. In the North Atlantic, the stocks of albacore are exploited by Spanish (Gulf of Gascony, the Canary Islands), French and Irish pair trawlers (Bay of Biscay). To a smaller extent, albacore is also fished by Portuguese (the Azores) longliners and pole-and-line vessels³.

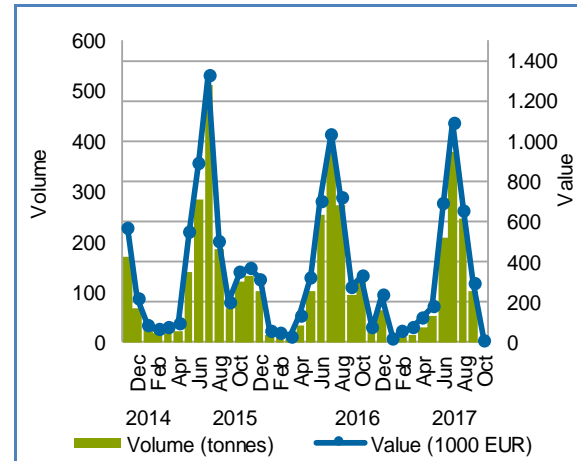
North Atlantic albacore tuna is regulated by the International Commission for the Conservation of Atlantic Tunas (ICCAT), to which the EU is a Contracting Party. The species is subject to total allowable catches (TACs). The EU's share of the annual quota for northern albacore tuna is set out in ICCAT recommendations, which are then transposed into European law at the annual Fishing Opportunities Regulations⁴. TACs for North Atlantic albacore for 2017 and 2018 are 21.551 tonnes for the EU's fleet⁵. There are also technical measures where the EU Member States have to set up a limit for a maximum number of vessels fishing for northern albacore as a target species at the EU level⁶.

Albacore, pale flesh tuna can be mainly found in cans, but also as fresh or frozen. Albacore tuna is the second, most imported tuna-like species in terms of extra-EU imports⁷.

In **Italy** in January–September 2017, first sales of albacore tuna decreased in both value and volume (–5% and –11%, respectively) from January–September 2016, and totalled EUR 3,1 million, corresponding to 1.040 tonnes. Compared with January–September 2015, the trend was maintained in both value (–16%) and volume (–18%). Low catch in November–January period was due to fisheries restrictions.

Riposto, Acitrezza, and Siracusa are the main ports on the Mediterranean where 76% of value and 80% of volume of albacore landings were registered in 2017.

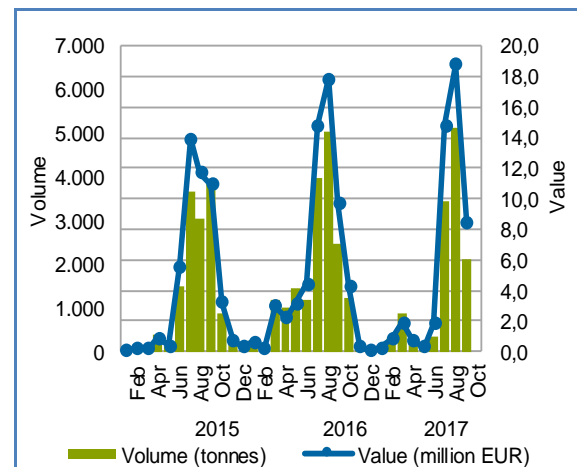
Figure 1. ALBACORE TUNA: FIRST SALES IN ITALY



Source: EUMOFA (updated 12.12.2017).

In **Spain** in January–September 2017, first sales of albacore tuna decreased in both value and volume (–14% and –24%, respectively) from January–September 2016, and totalled EUR 48 million and 12.620 tonnes. Compared with January–September 2015, the same trend was the opposite for value (+9%), and it maintained a negative trend in volume (–1%). In 2017, Spanish landings occurred on the coasts of the Bay of Biscay and the Iberian Coast (88% in value, 82% in volume), Mediterranean (1% in both value and volume), and the Outermost Regions (11% in value, 17% in volume). The main ports on those coasts are Getaria in the Bay of Biscay (22% in value), Carboneras in the Mediterranean Sea (26% in value), and Santa Cruz de Tenerife (58% in value).

Figure 2. ALBACORE TUNA: FIRST SALES IN SPAIN



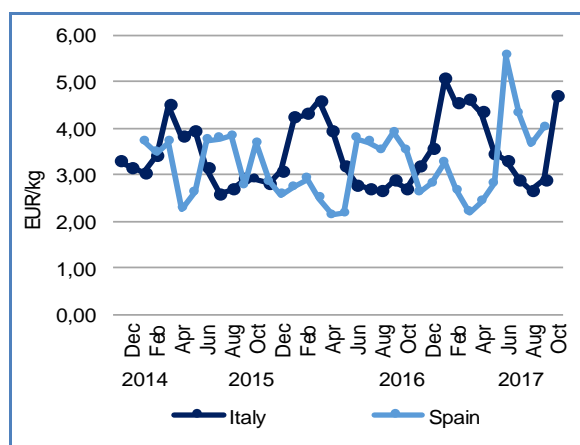
Source: EUMOFA (updated 12.12.2017).

In the past three years, the annual average first sales price of albacore tuna in Italy was 3,46 EUR/kg and approximately 7% higher than in Spain (3,22 EUR/kg). Average prices increased in both countries surveyed.

In Italy in January–September 2017, the average unit price of albacore tuna was 3,03 EUR/kg, a slight increase over January–September 2016 (+7%), whereas it was 3% higher than in January–September 2015. Usually, prices were higher in January–March with the highest off-season prices registered in June 2017 (5,06 EUR/kg) and March 2017 (4,62 EUR/kg) when catches were small (3 and 15 tonnes, respectively).

In Spain in January–September, average albacore tuna prices were approximately 3,20 EUR/kg and, in the period observed, they peaked at 5,55 EUR/kg (326 tonnes) in June 2017, whereas the lowest prices were 2,14 EUR/kg in April 2014, corresponding to 1.022 tonnes. In January–September 2017, the average unit price was 3,79 EUR/kg, a 13% increase over January–September 2016 and an 11% increase over the same period in 2015.

Figure 3. **ALBACORE TUNA: FIRST-SALES PRICE IN SELECTED COUNTRIES**



Source: EUMOFA (updated 12.12.2017).

We have covered **albacore tuna** in previous *Monthly Highlights*:

First sales: France (1/2016)

Trade: 9/2015

1.1.2. LING



Ling is commonly found in the Barents Sea and in waters from Iceland

to Morocco, but also in the Mediterranean Sea and in waters surrounding Greenland. Ling is the largest fish of the cod family, reaching 200 cm in length and 30 kg in weight. Ling has a lifespan of 20 years or more and is a fast-growing fish with a life history similar to other large neritic gadids⁸.

Ling is a demersal species located on rocky bottoms from 10 to 600 m. In the first couple of years of its life, ling is found mainly in shallow, coastal waters and pelagic waters before migrating to deeper waters. The species feeds mainly on fish such as cod, herring, and flatfish, and on crustaceans, cephalopods, and echinoderms (starfish).

The spawning period for ling occurs from March to August, and the eggs are pelagic. Spawning takes place commonly in deep water (200 m) from outside the Bay of Biscay to the coast of Norway, including Lofoten in the north, and in waters south of Iceland and in the Mediterranean Sea.

In general, bottom trawls, longlines, gillnets, and handlines are used to catch ling. EU vessels catch ling mainly with longlines or nets in open sea, in mixed fisheries, with other groundfish species, or as bycatch, typically when the main target is Atlantic cod.

The ling stocks are managed by the EU alone and/or in cooperation with third countries, such as Norway. Management includes yearly precautionary fishing quotas based on independent scientific advice received from the International Council for the Exploration of the Sea.

Ling TACs for the EU fleet in 2017:

- 36 tonnes in zone Union and international waters of I and II (Includes/1/2);
- 87 tonnes in zone IIIa; Union waters of IIIbcd (Includes/3A/BCD);
- 3.494 tonnes in zone Union waters of IV (Includes/04-C);
- 33 tonnes in zone Union and international waters of V (Includes/05EI);
- 13.696 tonnes in zone Union and international waters of VI, VII, VIII, IX, X, XII, and XIV (Includes/6X14).

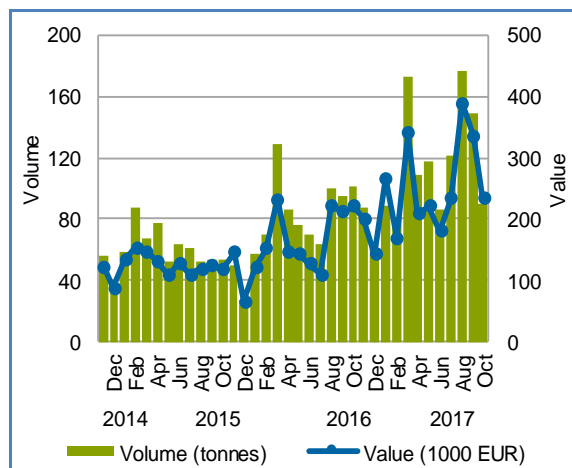
The fishing opportunities for ling in 2017, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters are regulated by Council Regulation (EU) 2017/127⁹.

Ling is marketed and sold frozen, as fresh fillets, and dried and salted¹⁰.

In **Denmark** in January–October 2017, first sales of ling were EUR 2,57 million and 1.193 tonnes. They were greater in both value (+53%) and volume (+41%) than in January–October 2016. Compared with January–October 2015, the trend was maintained: first-sales value and volume increased significantly, 103% and 90%, respectively.

Most of the ling was caught during March–May and September–October, and it is mostly landed on the coast of the North Sea (in 2017, ports of Hanstholm and Thyborøn accounted for 96% of landings in value, corresponding to 1.100 tonnes), whereas a small volume of 2,7 tonnes was landed on the coast of the Baltic Sea (port of Haderslev).

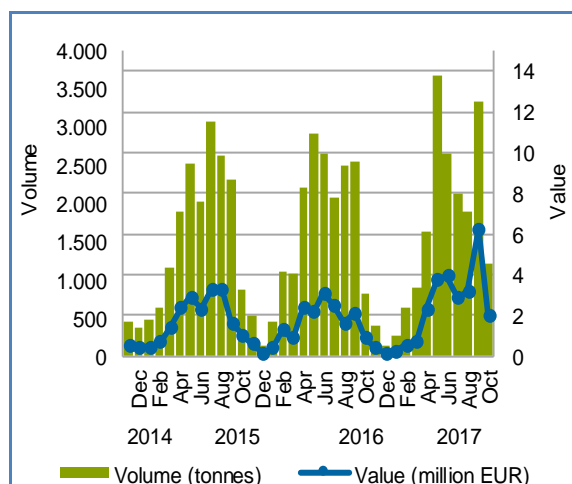
Figure 4. LING: FIRST SALES IN DENMARK



Source: EUMOFA (updated 12.12.2017).

In **Norway** in January–October 2017, first sales reached EUR 25,94 million and 18.382 tonnes. They increased in value (+50%), whereas they remained stable in volume compared with January–October 2016. They increased in both value (+34%) and volume (+4%) over January–October 2015. In October 2017, value and volume increased (+116% and +50%, respectively) over the same month in 2016. On average, landings peaked between May–September.

Figure 5. LING: FIRST SALES IN NORWAY

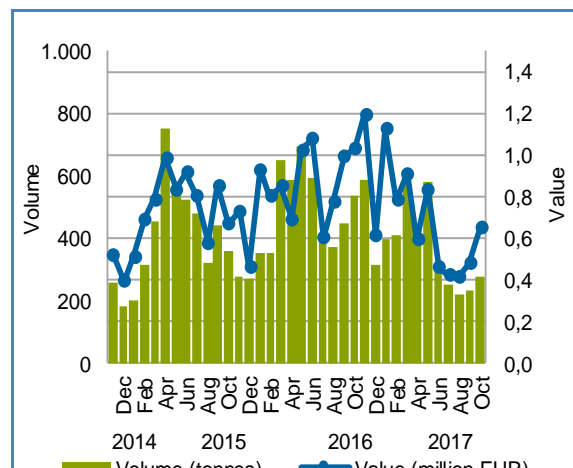


Source: EUMOFA (updated 12.12.2017).

In **the UK** in January–October 2017, first sales reached EUR 6,68 million and 3.692 tonnes. They decreased in both value (–24%) and volume (–26%) from January–October 2016. Compared with January–October 2015, they decreased in both value (–12%) and volume (–14%). On average, landings peaked between March–June.

Landings occurred on the coasts of the Celtic Sea (45% in value) and North Sea (55% in value). Kinlochbervie, Lochinver, and Ullapool are the main ports along the Celtic Sea where 91% in value and 89% in volume of ling were landed in 2017. In the North Sea, the main landing ports were Peterhead, Lerwick, and Scrabster (76% in both value and volume).

Figure 6. LING: FIRST SALES IN THE UK



Source: EUMOFA (updated 12.12.2017).

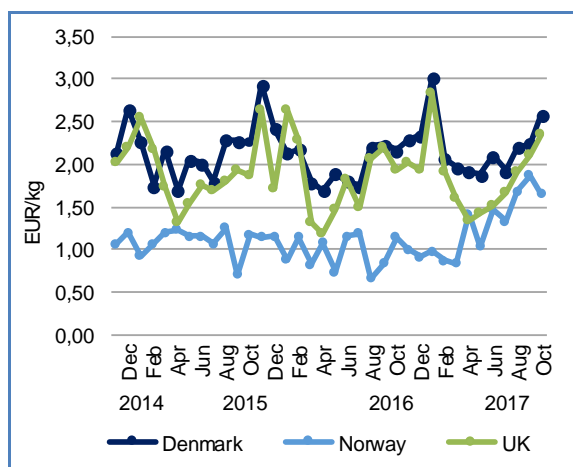
In the past three years, first-sales prices of ling ranged from 1,69 EUR/kg to 3,02 EUR/kg in Denmark, from 0,66 EUR/kg to 1,87 EUR/kg in Norway, and from 1,18 EUR/kg to 2,83 EUR/kg in the UK. On average, the highest prices (2,14 EUR/kg) were registered in Denmark, 92% higher than Norway, and 14% higher than the UK. In all countries surveyed, prices experienced an increasing trend in the three-year period observed.

In Denmark in January–October 2017, the average unit price of ling was 2,16 EUR/kg, a 9% increase over January–October 2016 and a 7% increase over January–October 2015. Prices followed a seasonal pattern. The highest price was 3,02 EUR/kg (January 2017), corresponding to 88 tonnes.

Average prices in Norway are the lowest of the countries surveyed. They reached the highest values in August–October 2017. The highest average price was registered in September 2017, i.e. 1,87 EUR/kg, when 3.340 tonnes were landed. In January–October 2017, the average price was 1,41 EUR/kg, 50% higher than January–October 2016, and 29% higher than the same period in 2015.

In the UK, average ling prices were approximately 1,90 EUR/kg and, in the period observed, they reached 2,83 EUR/kg (397 tonnes) in January 2017 and fell to 1,18 EUR/kg (586 tonnes) in April 2016. In January–October 2017, the average unit price was 1,81 EUR/kg, displaying a slight increase of 3% over January–October 2016 and 4% over January–October 2015.

Figure 7. **LING: FIRST-SALES PRICE IN SELECTED COUNTRIES**



Source: EUMOFA (updated 12.12.2017).

We have covered **ling** in previous *Monthly Highlights*:

First sales: Norway (10/2016).

2. Global Supply

Fishing opportunities / EU / Atlantic / North Sea: EU ministers reached an agreement on fishing opportunities for 2018 in the Atlantic, North Sea and Black Sea after negotiations at the Agriculture and Fisheries Council on 11–12 December. The negotiations were based on the Commission's proposal for Total Allowable Catches (TAC). The agreement will bring 53 species to Maximum Sustainable Yield (MSY) levels in 2018, nine more than in 2017. Agreement on fishing opportunities is worth over €5 billion, benefiting more than 50,000 fishermen¹¹.

Sustainable fisheries / High Seas / UN: The UN General Assembly adopted a draft resolution titled "Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks." The resolution sets modalities to negotiate a legally binding instrument for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, better known as the high seas. The UN General Assembly also adopted two other important resolutions concerning the oceans, one on oceans and the law of the sea, and one on sustainable fisheries¹².

Sustainable fisheries / Seafood: The High Level Group of the Commission's Scientific Advice Mechanism has published a new scientific opinion on "Food from the Oceans." They investigated how more food and biomass can be obtained from the oceans so as not to deprive future generations of their benefits. The aim of this Opinion is to answer the question in terms of where the potential increase lies, how feasible is its exploitation, over what timescale and what factors could influence potential use. Furthermore, the Opinion presents the number of policy recommendations, bringing on the best available scientific and technical evidence, knowledge and expertise in the area¹³.

Fishing opportunities / EU / Arctic High Seas: The EU, together with partners engaged in Arctic matters (Canada, the People's Republic of China, the Kingdom of Denmark in its relationship with Greenland and the Faroe Islands, Iceland, Japan, the Republic of Korea, Norway, the Russian Federation, and the USA), reached an international agreement to prevent unregulated commercial fishing on the Arctic high seas. The parties committed to conducting joint scientific research and monitoring to better understand Arctic Ocean ecosystems and to determine if the region can support commercial fisheries in future¹⁴.

Global production / Fisheries: Global production of fish and fishery products is expected to expand by 2,3% in 2017, a slightly faster growth rate than last year, reports Globefish in its report "Analysis and information on world fish trade." This acceleration is primarily attributable to a recovery in catches of anchoveta in South America following the end of El Niño, while world aquaculture production continues to rise 4–5% a year. With increasing supply and high price levels worldwide, the total value of world seafood exports is expected to rise 8% in 2017, building on a similar increase in 2016¹⁵.

Supply / USA: National Oceanic and Atmospheric Administration's (NOAA) annual Fisheries of the United States 2016 report released in December reveals stable national fisheries in both volume and value, with several ports in the region ranked highly. Overall, the USA landed fish for a total value of EUR 4.5 billion. The port of Dutch Harbor ranked second in landing value, at EUR 168 million. Alaskan ports took five out of the Top-10 rankings in landings. For the 17th year, the port of New Bedford ranked highest in value of catch landed, at EUR 277 million in landings, up EUR 4,2 million over 2015, owing largely to the high-value sea scallop fishery. Total New Bedford landings in 2016 were 48.500 tonnes¹⁶.

Supply / Serbia: In 2016, Serbia had 8.290 hectares of ponds for freshwater fish production, (mainly common carp), although the potential is 25-fold greater, at approximately 200.000 hectares. Of total production, Serbia produced 6.878 tonnes of freshwater fish for human consumption. The total volume of fisheries and aquaculture products was 8.947 tonnes (including 581 tonnes from industrial fisheries and 1.488 tonnes of registered catch by recreational fishermen). In 2016, Serbia experienced a deficit in trade of fisheries and aquaculture requiring the import of 34.918 tonnes in volume, and EUR 75 million in value. On the other hand, exports accounted for 2.853 tonnes in volume, and EUR 13 million in value. Imports come from Norway, Thailand, Croatia, Spain, and Vietnam. The main export destinations are Italy, Bosnia and Herzegovina, Denmark, Montenegro, and France¹⁷.

Supply / Denmark: In January–November 2017, Danish fishery production decreased 8% in value (EUR 460 million) and increased 37% in volume (1.128 million tonnes) compared with the same period in 2016. Of that, 67% of the catch was for human consumption; the rest was for industrial (non-food) use¹⁸.

3. Case studies

3.1. THE SWISS MARKET FOR FISHERIES AND AQUACULTURE PRODUCTS



Source: Geographic Division of the Archives Directorate of the Ministry of Foreign Affairs

Switzerland is an important trade partner for EU fish and seafood products. Because domestic production remains limited (ca. 3.600 tonnes in 2015), the Swiss fish market depends greatly on imports, mostly from EU Member States; the trade deficit reached EUR 711 million in 2016. At the consumption level, more than half of the fish is consumed in the foodservice sector. The main products purchased at the retail stage are salmon, fish fingers, and shrimp.

3.1.1. SWISS PRODUCTION

CATCH

Switzerland is a landlocked country, geographically divided among the Alps, the Swiss Plateau, and the Jura. The hydrographic network includes several of the largest bodies of freshwater in central and western Europe, including Lake Geneva, Lake Neuchâtel, Lake Constance, and Lake Zurich, which are the main lakes for commercial fisheries¹⁹.

Switzerland's large lakes, mountain tarns, and many rivers provide habitat for cold-water fish, especially coregonids and salmonids, and for both commercial and recreational fishing. Because of the country's subdivision into autonomous cantons, the management of fisheries differs according to region, but coordination by the Federal authority serves to promote their development. Fisheries are mostly active in the lakes. Most are carried out using small vessels and several types of gear, such as nets and fish traps.

According to FAO, total capture fishery production reached more than 2.000 tonnes in 2015, exclusively from inland resources. The volume of Swiss catches has stayed relatively stable since 2010, slightly above 2.000 tonnes. Moreover, according to the Federal Statistical Office, catches from recreational fisheries in Swiss lakes amounted to 279 tonnes in 2014.

In 2015, whitefishes (*Coregonus* spp) accounted for 56% of total catches with 1.092 tonnes caught. Other important species were European perch (18%), northern pike (7%), roach (6%), and sea trout (6%).

Table 3. TOP SPECIES CAUGHT IN THE SWISS INLAND FISHERIES (tonnes)

Species groups	2010	2011	2012	2013	2014	2015
Whitefishes	1.130	1.068	1.032	1.064	1.087	1.092
European perch	371	453	399	377	350	359
Northern pike	134	119	131	135	129	141
Roach	160	147	154	118	121	122
Sea trout	131	129	119	118	115	119
Other	175	182	168	195	181	190
Total	2.101	2.098	2.003	2.007	1.983	2.023

Source: FAO-Fishstat.

AQUACULTURE

According to the FAO, total Swiss aquaculture production in 2015 was 1.593 tonnes. Rainbow trout was by far the main species grown, with 1.300 tonnes produced in 2015, accounting for 82% of total aquaculture production. Other farmed species included European perch (10%), tilapia

(4%), sea trout (3%), sturgeon, and char. However, in the context of increasing domestic demand for high-range and sustainable species, several projects are aiming to develop new farmed species (tropical shrimp, salmon) in Switzerland.

Table 4. **SWISS AQUACULTURE PRODUCTION: BREAKDOWN BY SPECIES** (tonnes)

Species	2010	2011	2012	2013	2014	2015
Rainbow trout	1.100	1.300	1.300	1.300	1.300	1.300
European perch	50	50	50	165	165	165
Nile tilapia	60	60	60	60	60	60
Sea trout	40	40	40	40	40	40
Sturgeons	5	10	15	22	22	22
Chars	6	6	6	6	6	6
Total	1.261	1.466	1.471	1.593	1.593	1.593

Source: FAO-Fishstat.

Fish processing in Switzerland is limited, although a few artisanal smokeries produce high-value products (salmon, fera whitefish²⁰, perch, etc.) for the domestic market and export.

3.1.2. TRADE

SWISS GLOBAL FISH TRADE

The Swiss fish and seafood market depends greatly on imports. The trade deficit reached 711 million EUR in 2016, increasing the market's dependence on imported products.

Table 5. **SWISS TRADE BALANCE FOR SEAFOOD** (million EUR)

Trade flow	2013	2014	2015	2016
Exports	20	17	18	17
Imports	620	644	689	728
Balance	-600	-627	-671	-711

Source: AFD (Administration Fédérale des Douanes).

Swiss exports are small. According to the Federal Customs Administration, in 2016, Swiss fish and seafood exports reached EUR 17 million of which 59% were fish oil, likely to be used as pharmaceutical fish oil capsules. The remaining export value included fresh and frozen fish, crustaceans and molluscs (29%), prepared and preserved fish (6%), prepared and preserved molluscs and crustaceans (6%).

The main destination countries were by far EU Member States (64%). Other important destinations were Indonesia (12%), Turkey (5%), and the Philippines (5%).

Table 6. **MAIN IMPORTING COUNTRIES FROM SWITZERLAND** (2016)

Countries	Volume (tonnes)	Value (1000 EUR)
EU	524	10.822
Indonesia	104	1.961
Turkey	23	841
Philippines	44	812
Others	157	2.481
Total	852	16.918

Source: AFD (Administration Fédérale des Douanes).

In 2016, Swiss fish and seafood imports reached EUR 728 million and 76.216 tonnes. The main products imported were fish fillets (30% of import value), prepared and preserved fish (18%), dried, smoked, and salted products (12%), fresh whole fish (11%), and crustaceans (10%). In 2016, the main origin of Swiss imports was EU Member States, with 45.120 tonnes of seafood and fish products imported, accounting for 62% of total Swiss imports. Other important exporters to the Swiss market were Vietnam (10%), Norway (5%), Thailand (5%), and the USA (2%).

Table 7. **SWISS IMPORTS BY MAIN ORIGIN** (2016)

Countries	Volume (tonnes)	Value (million euros)
EU	45.120	454
Vietnam	9.125	76
Norway	3.813	40
Thailand	7.009	34
USA	1.298	17
Others	9.851	107
Total	76.216	728

Source: AFD (Administration Fédérale des Douanes).

SWITZERLAND AND THE EU

In 2016, EU exports of fish and seafood to Switzerland reached EUR 437 million for 50.000 tonnes. The most important main commercial species²¹ exported were the other marine fish (27% of export value, mostly battered fillets and prepared and/or preserved marine fish products) and salmon (21%). Other important main commercial species were other freshwater fish (fish fillets including the European perch, much appreciated in the

food service sector) and other products (both 5%), trout and other groundfish (both 4%). EU seafood exports to Switzerland were mostly fresh (40%) and prepared or preserved (25%). Most of the rest was exported dried, salted, or smoked (17%), or frozen (17%). The main EU Member States exporting to Switzerland were Germany (24%), the Netherlands (21%), and France (21%). Other important exporters were Denmark (7%), Italy (7%), and Spain (4%).

Table 8. **TOP EU EXPORTERS FOR SEAFOOD TO SWITZERLAND** (million EUR and tonnes)

Country	2014		2015		2016	
	Value	Volume	Value	Volume	Value	Volume
Germany	84	12.800	91	13.008	107	13.489
Netherlands	56	7.905	64	7.282	92	9.166
France	66	7.275	84	8.037	90	8.264
Denmark	35	4.493	37	4.792	32	3.499
Italy	29	3.975	32	4.105	31	4.124
Spain	14	1.765	16	1.951	19	2.112
Other	68	8.934	67	8.978	66	9.095
Totals	352	47.147	392	48.153	437	49.749

Source: EUMOFA.

Table 9. **TOP MAIN COMMERCIAL SPECIES EXPORTED FROM EU TO SWITZERLAND** (million EUR and tonnes)

Species	2014		2015		2016	
	Value	Volume	Value	Volume	Value	Volume
Other marine fish	86	12.846	98	12.652	117	13.729
Salmon	60	4.666	76	5.590	90	5.900
Other freshwater fish	20	1.774	22	1.817	21	1.762
Other products	19	4.277	20	4.321	20	4.411
Trout	12	1.428	15	1.605	19	1.929
Other groundfish	17	2.764	13	2.212	17	2.849
Other	138	19.393	147	19.956	152	19.170
Totals	352	47.147	392	48.153	437	49.749

Source: EUMOFA.

In 2016, EU imports of seafood from Switzerland totalled EUR 53 million and 10.435 tonnes. The significant discrepancy between these EU import figures and Swiss exports to the EU may be explained by the fact that EUMOFA data include non-food use fish products. The

most important main commercial species²² imported from Switzerland to the EU in value were the other products (87%, including mostly unspecified prepared/preserved/cooked fish, molluscs or crustaceans), fish oil (5%), and salmon (5%).

In 2016, the main EU importer from Switzerland was Germany (41% of EU import value). Other important

importers were the UK (18%), Sweden (11%), and the Netherlands (8%).

Table 10. **TOP EU IMPORTERS FROM SWITZERLAND** (million EUR and tonnes)

Species	2014		2015		2016	
	Value	Volume	Value	Volume	Value	Volume
Germany	15	2.882	18	3.792	22	4.849
United Kingdom	9	1.645	10	1.698	10	1.667
Sweden	6	1.132	6	1.225	6	1.092
Netherlands	6	747	2	211	4	621
Other	11	2.338	11	2.304	11	2.206
Totals	48	8.742	48	9.230	53	10.435

Source: EUMOFA.

Table 11. **TOP MAIN COMMERCIAL SPECIES IMPORTED FROM SWITZERLAND TO EU** (1000 EUR and tonnes)

Species	2014		2015		2016	
	Value	Volume	Value	Volume	Value	Volume
Other products	39.195	7.543	42.968	8.558	46.327	9.692
Fish oil	4.921	500	423	40	2.684	304
Salmon	2.251	76	2.494	39	2.452	38
Other non-food use	462	554	594	511	820	354
Other salmonids	643	19	671	16	653	16
Other MCS*	600	51	654	66	545	31
Totals	48.071	8.742	47.805	9.230	53.481	10.435

Source: EUMOFA.

*Other Main Commercial Species (EUMOFA classification) than those mentioned above.

CONSUMPTION

Switzerland has a population of 8,1 million in 26 cantons, four official languages, and very different habits towards fish and seafood consumption. For instance, French-speaking Swiss account only for 20% of the national population but represent 60% of the national fish and seafood consumption. The Swiss fish consumption market is estimated at around 70.000 tonnes, the average annual consumption per capita is 9 kg, and it is estimated that 55% of fish and seafood products are consumed in the foodservice sector. Only 2% originated from domestic production.

The Swiss fish consumption has increased in recent years (+1% from 2015 to 2016) and especially concerning marine species to the detriment of freshwater species²³. Sustainable labels and organic products (EU organic label but also BioSuisse), from diverse origins, are much appreciated. For instance, the share of the organic fish market is estimated at 14% in the retail sector²⁴. In the retail sector, the main consumed products are salmon, fish fingers (white fish, mostly Alaska pollock, cod, etc.), and shrimp.

Table 12. **TOP SALES IN RETAIL SECTOR (2016)**

Products	Sales (in tonnes)
Salmon	3.333
Fish fingers	2.716
Shrimp	2.498
Frozen meals	1.598
Pangasius	1.384
Trout	1.354
Mussel	1.169
Salted Cod	856
Cod	619
Plaice	591

Source: Nielsen Switzerland, OFAG Retail sales / consumer panel.

3.2. CRAB IN THE EU

SUMMARY

The total volume of crab landed and imported to the EU was 67.500 tonnes in 2016. The intra-EU trade consists mainly of fresh and frozen whole crab, while extra-EU imports consist mainly of prepared and preserved crab products as well as frozen whole crab. France and Spain are the main importers. The export volumes of crab from the EU have increased from 260 tonnes in 2010 to 3.000 tonnes in 2016, and the total value reached EUR 76 million in 2016.

The main commercial species in the EU is the brown crab (also known as edible crab), which is only distributed in European waters. Crab is usually caught during summer and autumn, and of the total catch of brown, approximately 90% of the catch stems from EU Member States.

BIOLOGY

Crab is a crustacean covered with a thick external skeleton. Crabs grow through moulting, mostly in the warm season. Moulting is most frequent in the crabs' early life, and the growth decreases as the crab matures. Many species of crab are caught in European waters, with the brown crab (*Cancer pagurus*) as the main commercial species. Other species caught for commercial use are the spinous spider crab (*Maja squinado*), the velvet swimcrab (*Necora puber*), and the queen crab (*Chionoecetes opilio*). The brown crab, in the Cancridae family, is a European species distributed between North Africa and northern Norway. The main habitat is around the British Isles, including Ireland, but there are also significant populations along the French and Norwegian coasts.

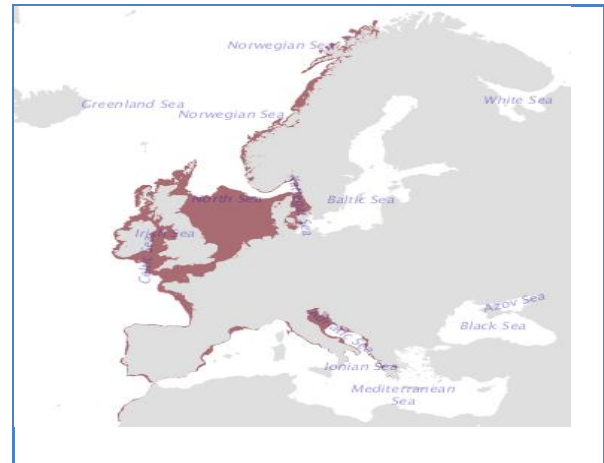
As a marine species, the brown crab is only found in waters with high and relatively stable salinity. The species is relatively stationary, and migration is primarily vertical, moving to the upper and warmer shore at night to feed before returning to deeper water at daytime. To avoid cold surface water during winter, the brown crab often migrates as deep as 30–50 metres. Occasionally, brown crab has been caught as deep as 400 m.

The brown crab lives for approximately 15 years and can reach a width of up to 30 cm (carapace) and weigh up to 2,5 kg. It takes 5–7 years to reach the age of maturity, and crabs mate when the female is moulting. The brown crab usually lives on hard and stony bottoms, but the female migrates to sandy bottoms, where they dig into

the sediment when spawning, usually in late autumn or early winter.

Brown crabs are omnivorous. They are particularly fond of shells and bristle worms. As scavengers, they are important as renovators of the seabed²⁵.

Figure 8. **BROWN CRAB DISTRIBUTION MAP**



Source: FAO.

MANAGEMENT

Crab is usually caught during summer and autumn; more specifically, larger volumes are landed from May to December with a peak from July to November. Most crab is captured using baited traps or creels. The traps can be fished individually or in strings.

Crab is managed primarily through fishing effort limitations and technical conservation measures and is not subject to catch limits such as TACs and quotas. Usually, the total number of traps allowed is limited, depending on the boat size, the number of crew, and the fishing ground²⁶.

According to EU regulation on brown crab, only whole individuals, excluding berried females and soft-shelled crabs, with a minimum shell width of 13 cm, shall be marketed²⁷.

3.2.1. Catch and landings

EU CATCH OF CRAB

In 2016, the EU crab catch amounted to 67.800 tonnes. The main species was brown crab, with 70% of the catch in terms of volume in 2015, followed by the spinous spider crab (9%) and the queen crab (8%).

Table 13. **EU CATCH OF CRAB – MAIN SPECIES** (1000 tonnes)

Species	2011	2012	2013	2014	2015	2016
Brown crab	40,4	40,9	41,7	46,6	42,2	47,2
Spinous spider crab	5,8	5,6	5,3	6,5	5,8	6,2
Queen crab	0	0	0	0,2	3,8	5,2
Marine crabs	1,7	1,2	3,4	6,7	3,7	5,2
Velvet swimcrab	3,1	2,7	2,4	2,5	2,4	2,1
Green crab	1,4	1,7	1,3	1,4	0,8	0,6
Other	1,2	0,5	0,5	1,5	2,5	1,2
Total	53,7	52,5	54,6	65,4	61,2	67,8

Source: Eurostat.

CATCH OF BROWN CRAB

Only European countries take commercial catches of brown crab. The UK is by far the largest player, with 72% of the total catch in 2016. The catch has been relatively stable, with an increase of only 3% from 2011

to 2015, but increased 11% from 2015 to 2016. Of the total catch in 2011 through 2016, between 88% and 91% of the catch stem from EU Member States.

Table 14. **MAIN NATIONS CATCHING BROWN CRAB** (1000 tonnes)

Country	2011	2012	2013	2014	2015	2016
United Kingdom	25,8	27,3	28,0	32,1	29,0	33,8
Ireland	6,7	6,3	6,4	7,1	7,2	7,3
Norway	5,3	5,0	5,2	4,6	4,7	4,9
France	7,0	6,1	5,9	6,1	4,6	4,5
Netherlands	0,4	0,5	0,6	0,6	0,5	0,6
Other	0,6	0,8	0,8	0,7	0,9	1,1
Total	45,8	45,9	46,9	51,2	47,0	52,1
EU total	40,4	40,9	41,7	46,6	42,2	47,2

Source: Eurostat.

LANDINGS IN THE EU

Landings represent the unloading of crab in a given country from all fishing vessels, regardless of the nationality of the vessel. Consequently, landings can differ from a nation's catches, which represents catches by all vessels of that nation, regardless of where it is landed.

The total landings of crab in the EU amounted to 55.500 tonnes in 2016, a 6% increase over the previous year. More than half of the volume was landed in the UK, followed by France, Ireland, and Greece with 17%, 14%, and 5%, respectively. In value, the UK had approximately the same share, followed by France, Ireland, and Spain with 21%, 10%, and 7% respectively.

Table 15. **LANDINGS OF CRAB IN THE EU** (million EUR and 1000 tonnes)

Country	2012		2013		2014		2015		2016	
	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume
United Kingdom	48,6	29,3	45,4	28,6	53,3	32,5	54,3	29,0	57,8	32,0
France	23,2	10,3	23,5	10,4	24,5	11,1	21,1	9,1	21,2	9,7
Ireland	8,9	6,2	9,1	6,1	8,2	6,1	7,6	7,0	10,2	7,8
Spain	6,0	0,9	6,6	1,3	14,1	3,1	12,5	1,7	7,2	1,4
Greece	0,6	0,5	0,5	0,5	1,1	0,8	1,5	1,3	3,3	2,8
Netherlands	0,9	1,0	1,0	0,8	0,7	0,5	1,9	2,7	0,5	0,5
Total	90,2	49,5	88,4	48,7	103,9	55,3	101,9	52,2	102,9	55,5

Source: EUMOFA/Eurostat.

Table 16. **LANDINGS IN THE EU BY SPECIES** (million EUR and 1000 tonnes)

Species	2012		2013		2014		2015		2016	
	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume
Brown crab	64,7	39,3	64,3	38,5	71,9	43,0	69,8	40,3	74,3	42,5
Spinous spider crab	11,5	4,9	10,7	4,8	11,6	5,5	12,9	5,6	13,5	6,0
Velvet swimcrab	8,6	2,5	7,4	2,1	8,0	2,2	8,2	2,4	8,6	2,1
Marine crabs	2,4	1,1	4,0	1,6	11,3	3,8	8,9	2,7	4,7	3,8
Red crab	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,0	0,5	0,0
Green crab	0,7	1,2	0,6	1,1	0,6	1,1	0,6	0,6	0,4	0,6
Total	90,2	49,5	88,4	48,7	103,9	55,3	101,9	52,2	102,9	55,5

Source: EUMOFA/Eurostat.

Table 17. **AVERAGE LANDING PRICE OF BROWN CRAB. SELECTED COUNTRIES AND EU TOTAL** (EUR)

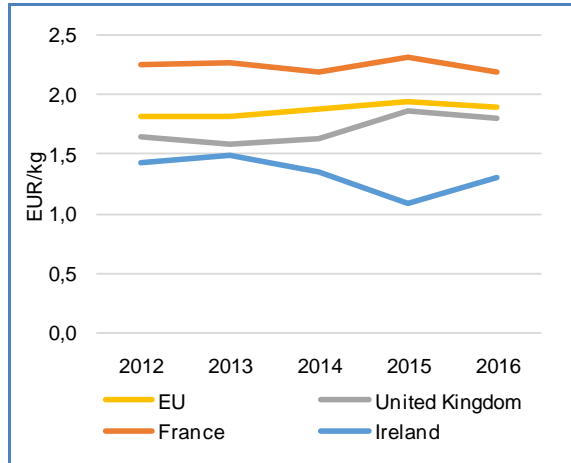
Country	2012	2013	2014	2015	2016
France	2,4	2,6	2,6	2,8	2,7
United Kingdom	1,5	1,5	1,6	1,8	1,7
Ireland	1,4	1,5	1,3	1,1	1,3
EU	1,6	1,7	1,7	1,7	1,7

Source: Eurostat.

The average landing price for crab in the EU increased 7%, from 1,82 EUR/kg in 2012 to 1,95 EUR/kg in 2015, but fell almost to 2012 levels in 2016 (1,85 EUR/kg). The three Member States taking the largest landings of crab have experienced relatively fluctuating prices since 2012. The average price from 2012 to 2016 was almost 70% higher in France than in Ireland.

In France, the landing prices of crab remained relatively stable in the period surveyed despite an increase in the price of brown crab, which rose from 2,45 EUR/kg in 2012 to 2,73 EUR/kg in 2016. This was made possible by the growing share of spinous spider crab in total crab landings and by the lower price of the species (1,78 EUR/kg in 2016, i.e. 35% less than the brown crab price).

Figure 9. **AVERAGE LANDING PRICES OF CRAB IN THE EU AND SELECTED MEMBER STATES (EUR/kg)**



Source: EUMOFA/Eurostat.

3.2.2. Trade

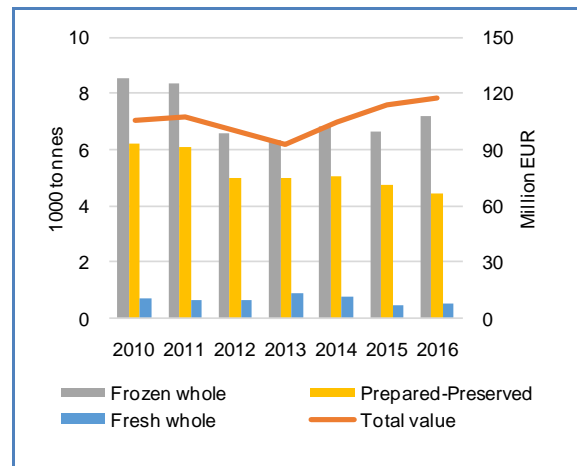
EU IMPORTS

In 2010 and 2011, the extra-EU imports of crab were 15.000 tonnes. From 2012 to 2016, the imported volume decreased to approximately 12.000 tonnes annually. Except from small volumes from Norway, the imported crab consists of crab species other than the brown crab, more than half of which are from Asian countries. Based on trade flows from Canada and the USA to the main exporting countries in Asia, most of the volume imported is assumed to be snow crab (queen crab) and king crab. It can also be crab from Asian aquaculture or fisheries, e.g. Chinese mitten crab or blue swimming crab.

Although the intra-EU trade consists mainly of fresh and frozen whole crab, the extra-EU imports consist mainly of prepared and preserved crab products as well as frozen whole crab.

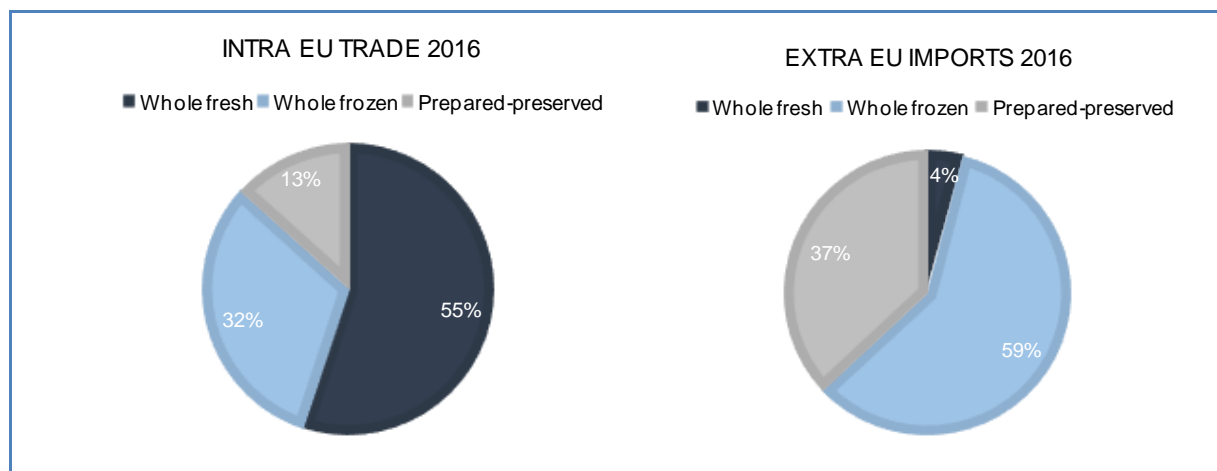
Main EU importers in 2016 were France (EUR 92,8 million), Spain (EUR 53,4 million), Germany (EUR 33,1 million), and Belgium (EUR 28,5 million), all preservation states and all origins (intra-EU and extra-EU) combined.

Figure 10. **EXTRA-EU IMPORTS OF CRAB (1000 tonnes and million EUR)**



Source: EUMOFA.

Figure 11. **INTRA-EU TRADE AND EXTRA-EU IMPORTS OF CRAB – BY PRESENTATION AND PRESERVATION (volume)**



Source: EUMOFA.

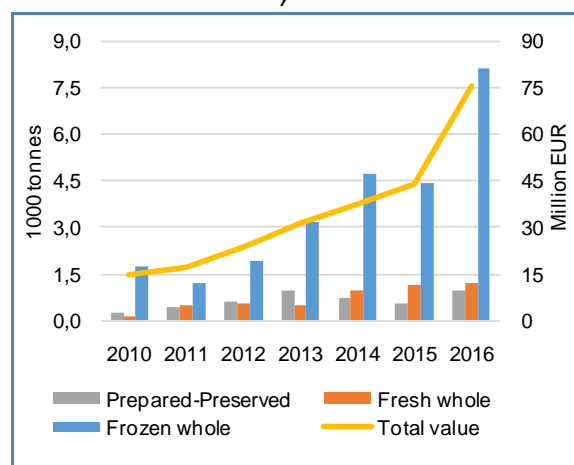
EU EXPORTS

The extra-EU export volumes have increased from approximately 2.000 tonnes in 2010 to more than 10.000 tonnes in 2016. This corresponds to an increase in export value from EUR 14 million in 2010,

to EUR 76 million in 2016. The growth in crab exports consists mainly of an increase in whole frozen crab from the Netherlands, the UK, and Spain. The combined export volume of whole frozen crab from these countries was 200 kg in 2010 and increased to 6.100 tonnes in 2016.

Over the same period, the extra-EU export volumes of brown crab have experienced an 11-fold increase from approximately 260 tonnes in 2010 to 3000 tonnes in 2016. This is mainly the result of an increase in exports to Asian countries, including China, Japan, Indonesia, Hong Kong, the Republic of Korea, and Vietnam. Practically no imports and 3000 tonnes of exports indicates that the self-sufficiency rate of brown crab in the EU is greater than 100%.

Figure 12. **EXTRA-EU EXPORT OF CRAB** (1000 tonnes and million EUR)



Source: EUMOFA.

3.3. Consumption

On the EU market, brown crab is available both live and processed. Typical processing operations include: primary processing, e.g. cooked whole, claws, or dressed crab; secondary processing, e.g. white, brown, and mixed crab meat (fresh, frozen, pasteurised, or canned); and tertiary processing, i.e. crab as an ingredient in another product including patés, pastes, and crab cakes²⁸.

Brown crab is not an everyday purchase, and there is a sharp contrast between how consumers on the British Isles and continental Europe view the brown crab. In the UK, brown crab is bought twice a year on average and at any time during the year. On the continent, consumption of brown crab is more often associated with social events in connection with special occasions²⁹.

4. Consumption

HOUSEHOLD CONSUMPTION IN THE EU

In September 2017, the consumption of fresh fisheries and aquaculture products increased over September 2016 in both volume and value in Germany (+5% and +3%, respectively), Italy (+2% and +4%), Spain (+2% and +6%), and Sweden (+3% and +5%). Decreases in consumption in both volume and value were observed in the rest of the Member States analysed.

The largest increase in volume in September 2017 was observed in Germany and the largest increase in value

in Spain, whereas the largest drop in both volume and value was registered in Ireland.

Compared with August 2017, among the Member States surveyed, the greatest increase in value was registered in the Netherlands (+61%), followed by Poland (+35%). Volume decreased 22% in Sweden, followed by Portugal (-17%), Hungary (-13%), and Denmark (-3%).

Table 18. **SEPTEMBER OVERVIEW OF THE REPORTING COUNTRIES** (volume in tonnes and value in million EUR)

Country	Per capita consumption 2015* (live weight equivalent) kg/capita/year	September 2015		September 2016		August 2017		September 2017		Change from September 2016 to September 2017	
		Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Denmark	22,9	610	8,34	597	8,92	572	8,44	557	8,22	7%	8%
Germany	13,4	5.420	66,67	5.200	72,90	5.240	77,47	5.450	75,38	5%	3%
France	33,9	19.070	184,46	20.119	201,11	17.189	178,48	19.048	195,46	5%	5%
Hungary	4,8	300	1,52	264	1,66	317	1,60	277	1,48	5%	11%
Ireland	22,1	1.216	16,27	1.300	18,35	1.004	14,41	1.074	15,48	17%	16%
Italy	28,4	30.107	237,57	29.879	244,27	27.148	226,69	30.396	252,96	2%	4%
Netherlands	22,2	4.114	44,76	3.810	46,35	2.141	26,35	3.380	42,35	11%	9%
Poland	13,6	4.702	25,05	4.063	21,80	2.632	15,63	3.737	21,16	8%	3%
Portugal	55,9	5.172	29,19	4.975	30,44	5.521	36,20	4.607	29,65	7%	3%
Spain	45,2	56.166	391,46	54.069	391,72	45.439	342,84	54.930	415,97	2%	6%
Sweden	26,9	944	12,04	735	10,61	968	15,91	756	11,16	3%	5%
UK	24,3	28.018	322,37	28.701	293,29	22.036	221,10	28.260	285,35	2%	3%

Source: EUMOFA, based on Europanel (updated 07.12.2017).

* Data on per capita consumption of all fish and seafood products for all EU Member States can be found at: <http://www.eumofa.eu/documents/20178/108446/The+EU+fish+market+2017.pdf>

Generally, the consumption of fisheries and aquaculture products in September followed an increasing trend in both volume and value in Germany and Italy. Six Member States saw a decreasing trend in both volume and value, particularly Denmark, Hungary, Ireland, the Netherlands, Poland, and Sweden. In France, Portugal, and Spain, volume fell and value increased. The opposite was observed in the UK, where volume increased and value decreased.

In September for the past three years, household consumption in volume of fresh fish products was below the annual average in Denmark (-21%), Hungary

(-42%), Poland (-25%), Portugal (-6%), Spain (-2%), and Sweden (-8%). In value, the household consumption was above the annual average in most of the Member States analysed, except for Denmark (-20%), Hungary (-26%), and Poland (-12%). In the rest of the Member States analysed, the household consumption was above average.

The most recent consumption data available on EUMOFA for **October 2017** can be accessed [here](#).

4.1. FRESH PLAICE



Catch area: Bay of Biscay in the south, through the English Channel, North Sea, and Irish Sea to the Baltic, and along the Norwegian coast to the Barents Sea³⁰.

Main producing countries in Europe: Denmark, Belgium, the UK, France, and Germany³¹.

Production method: Caught.

Main consumers in the EU: The UK, Denmark, the Netherlands, Germany.

Presentation: whole, filleted.

Preservation: Fresh, frozen.

Ways of preparation: Grilled, shallow fried, baked.

We have covered **plaice** in previous *Monthly Highlights*:

First sales: Belgium (2/2016, 6/2014, January 2013), Denmark (8/2015, June 2013), Sweden (6/2016).

Topic of the month: Plaice in the Netherlands (8/2016, 3/2015).

Consumption: Germany (2/2016), the Netherlands (2/2016, 5/2015), Sweden (2/2016, 5/2015), the UK (2/2016, 5/2015).

GENERAL OVERVIEW OF HOUSEHOLD CONSUMPTION IN GERMANY, THE NETHERLANDS, AND THE UK

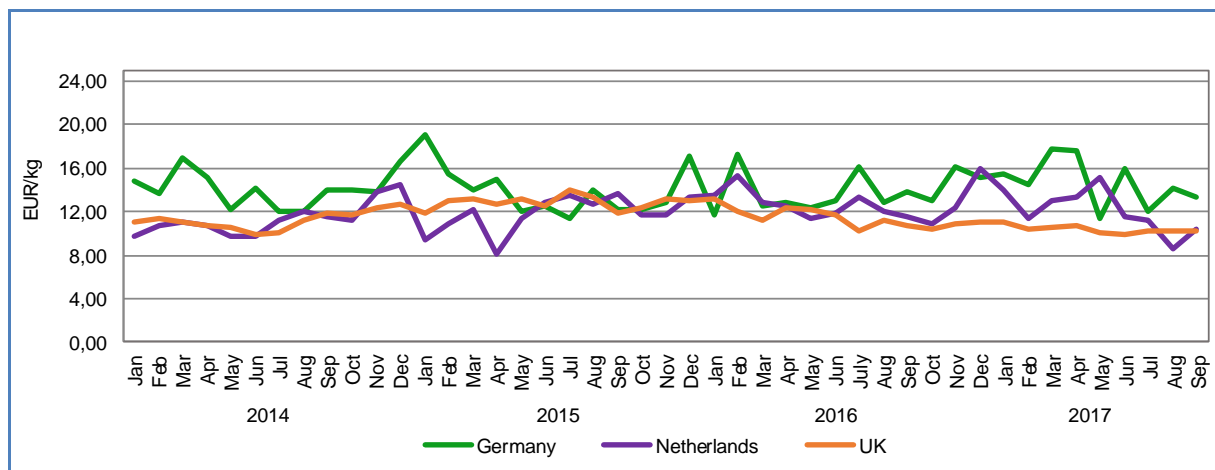
Among Germany, the Netherlands, and the UK, the per capita consumption of fish and seafood products was highest in the UK. However, all three Member States registered per capita consumption below the EU average.

The UK registered 24,3 kg per capita consumption in 2015, 3% lower than the EU average (25,1 kg). However, it was 10% higher than the Netherlands and 82% higher than Germany. In the Netherlands, the per capita consumption was 22,2 kg, 66% higher than in

Germany (13,4 kg). See more on EU per capita consumption in Table 18.

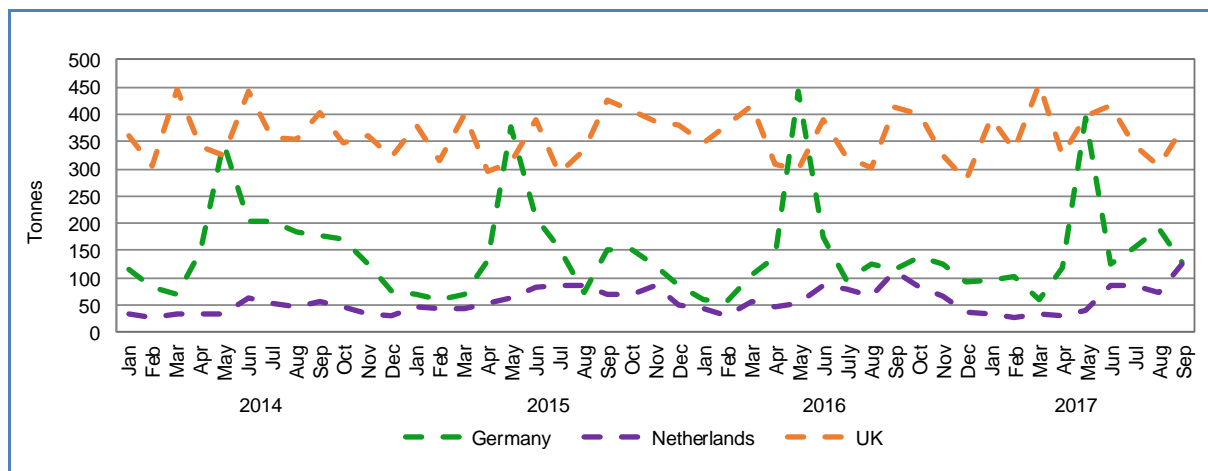
Retail prices of fresh plaice fluctuated the most during the period January 2014–September 2017 in Germany and the Netherlands. Volume also saw considerable monthly variation. Volumes of plaice sold were significantly higher in the UK than in Germany and the Netherlands.

Figure 13. RETAIL PRICES OF FRESH PLAICE



Source: EUMOFA, based on Europanel (updated 07.12.2017).

Figure 14. VOLUME SOLD OF FRESH PLAICE



Source: EUMOFA based on Europanel (updated 07.12.2017).

CONSUMPTION TREND IN GERMANY

Long-term trend, January 2014–September 2017: increasing slightly in price and decreasing slightly in volume.

Average price: 14,08 EUR/kg (2014), 13,95 EUR/kg (2015), 13,89 EUR/kg (2016).

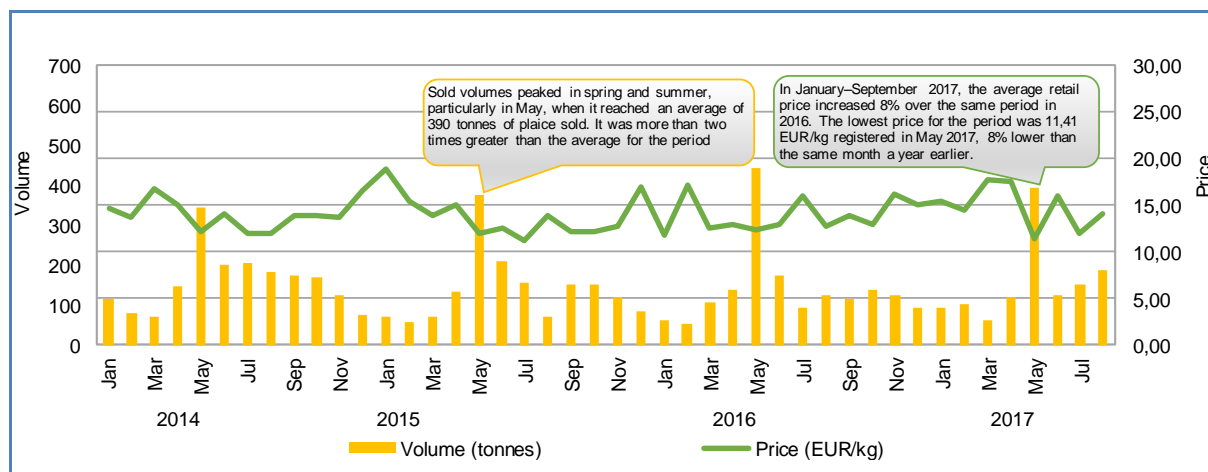
Total consumed volume: 1.903 tonnes (2014), 1.656 tonnes (2015), 1.672 tonnes (2016).

Short-term trend, January–September 2017: decreasing in price and increasing slightly in volume.

Average price: 14,69 EUR/kg.

Total consumed volume: 1.371 tonnes.

Figure 15. RETAIL PRICE AND VOLUME SOLD OF FRESH PLAICE IN GERMANY



Source: EUMOFA, based on Europanel (updated 07.12.2017).

CONSUMPTION TREND IN THE NETHERLANDS

Long-term trend, January 2014–September 2017: both increasing in price and in volume.

Average price: 11,33 EUR/kg (2014), 11,80 EUR/kg (2015), 12,75 EUR/kg (2016).

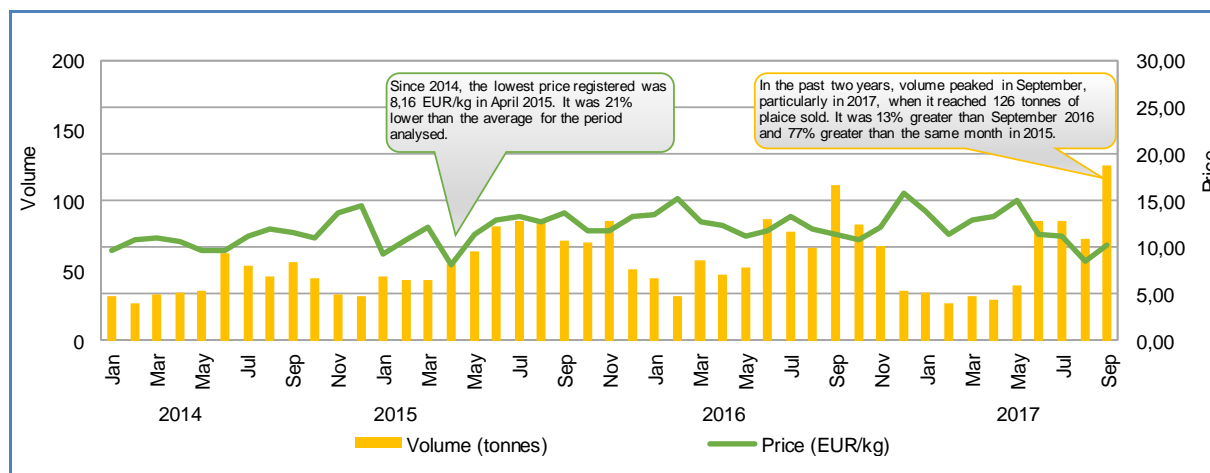
Total consumed volume: 493 tonnes (2014), 784 tonnes (2015), 765 tonnes (2016).

Short-term trend, January–September 2017: decreasing in price and increasing in volume.

Average price: 12,05 EUR/kg.

Total consumed volume: 533 tonnes.

Figure 16. RETAIL PRICE AND VOLUME SOLD OF FRESH PLAICE IN THE NETHERLANDS



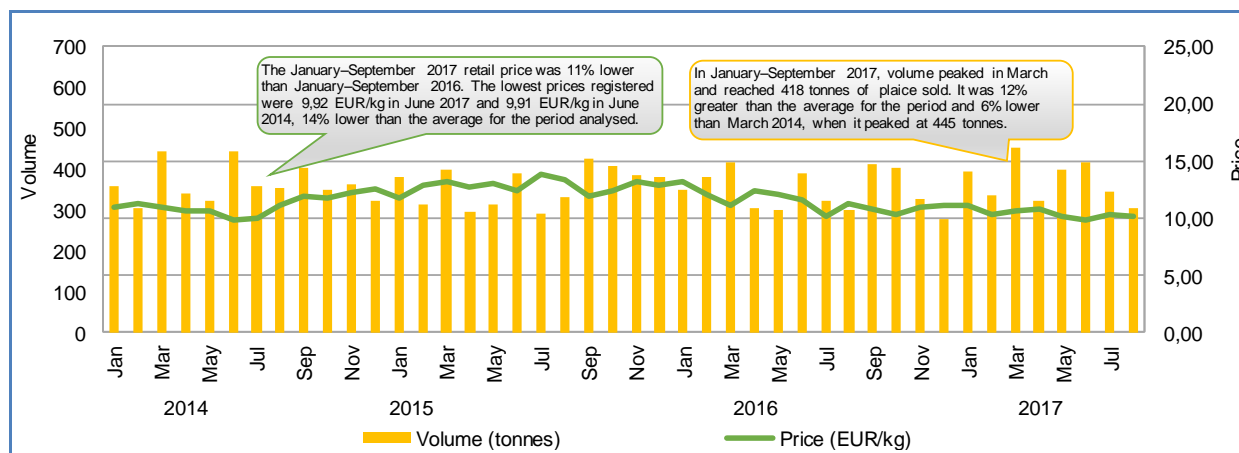
Source: EUMOFA, based on Europanel (updated 07.12.2017).

CONSUMPTION TREND IN THE UK

Long-term trend, January 2014–September 2017: decreasing in price and decreasing slightly in volume.
Average price: 11,18 EUR/kg (2014), 12,82 EUR/kg (2015), 11,42 EUR/kg (2016).
Total consumed volume: 4.367 tonnes (2014), 4.367 tonnes (2015), 4.318 tonnes (2016).

Short-term trend, January–September 2017: decreasing slightly in both price and in volume.
Average price: 10,39 EUR/kg.
Total consumed volume: 3.347 tonnes.

Figure 17. RETAIL PRICE AND VOLUME SOLD OF FRESH PLAICE IN THE UK

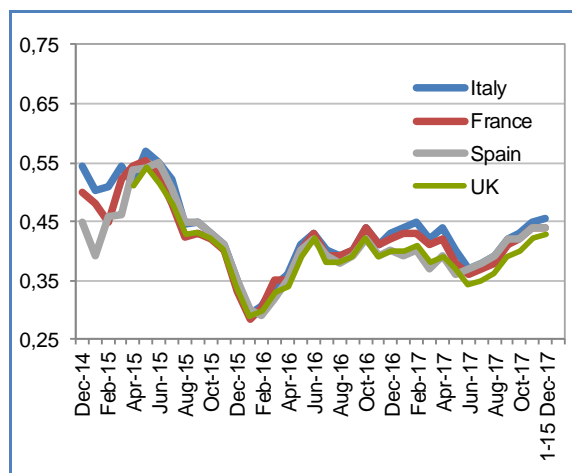


Source: EUMOFA, based on Europanel (updated 07.12.2017).

5. Macroeconomic context

5.1. MARINE FUEL

Figure 18. **AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE, SPAIN, AND THE UK (EUR/LITRE)**



Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; Spain; ARVI (January 2013–March 2016); MABUX (June 2016–1-15 December 2017).

In the first half of December 2017, the fuel price in the French ports of Lorient and Boulogne was 0,44 EUR/litre, and remained unchanged compared with the same period in November 2017. It increased 8% over the first half of December 2016.

In the Italian ports of Ancona and Livorno, the average price of marine fuel from 1st until the 15th of December 2017 was 0,46 EUR/litre. It increased 1% from the same period in November 2017 and December 2016.

The price of marine fuel in the ports of A Coruña and Vigo, Spain, reached on average 0,44 EUR/kg and remained unchanged in the first half of December 2017. It was 13% higher compared with the same period in December 2016.

The fuel price observed in the UK ports of Grimsby and Aberdeen was 0,43 EUR/litre and increased 2% compared with the first 15 days of the previous month and the same period in 2016.

5.2. FOOD AND FISH PRICES

In November 2017, annual EU inflation was 1,8%, up from 1,7% in October 2017. A year earlier, the rate was 0,6%. In November 2017, the lowest annual rates were recorded in Cyprus (+0,2%), Ireland (+0,5%), and Finland (+0,9%), while the highest annual rates were registered in Estonia (+4,5%), Lithuania (+4,2%), and the United Kingdom (+3,1%).

Compared with October 2017, annual inflation rose in 15 Member States, remained stable in nine (Ireland, France, Croatia, Italy, Latvia, Lithuania, Luxembourg, Malta, and Austria), and fell in four (Czech Republic, Denmark, Cyprus and Portugal).

In November 2017, prices of food and non-alcoholic beverages and prices of fish and seafood increased slightly (+0,3% and 0,2%, respectively) over the previous month (October 2017).

Since November 2015, food prices increased 3,1% and fish prices experience a higher increase 6,9%.

Table 4. **HARMONISED INDEX OF CONSUMER PRICES IN THE EU (2016 = 100)**

HICP	Nov 2015	Nov 2016	Oct 2017	Nov 2017
Food and non-alcoholic beverages	100,01	100,30	102,82	103,09
Fish and seafood	100,27	103,54	107,01	107,20

Source: Eurostat.

5.3. EXCHANGE RATES

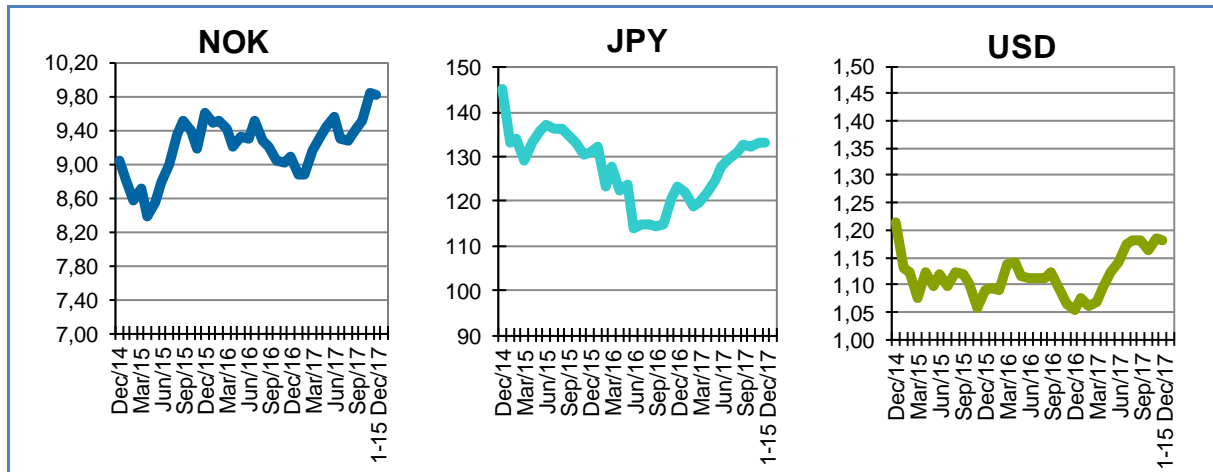
In the first half of December 2017, the euro appreciated against the Norwegian krone (+3,2%), the US dollar (+1,3%) and the Japanese yen (+0,6%) from the first half of November 2017. For the past six months, the euro has fluctuated around 1,17 against the US dollar. Compared with a year earlier (the first two weeks of December 2016), the euro has appreciated 9,2% against the Norwegian krone, 10,9% against the Japanese yen, and 11,0% against the US dollar.

Table 5. **THE EURO EXCHANGE RATES AGAINST THREE SELECTED CURRENCIES**

Currency	1-15 Dec 2015	1-15 Dec 2016	1-15 Nov 2017	1-15 Dec 2017
NOK	9,3851	8,9836	9,5035	9,8121
JPY	132,68	120,16	132,44	133,24
USD	1,0843	1,0639	1,1653	1,1808

Source: European Central Bank.

Figure 19. TREND OF EURO EXCHANGE RATES



Source: European Central Bank.

5.4. EUROPEAN UNION ECONOMIC OVERVIEW

During the third quarter of 2017, seasonally adjusted GDP rate increased 0,6% compared with the previous quarter. In the second quarter of 2017, GDP has grown by 0,7%. Compared with the same quarter of the

previous year, seasonally adjusted GDP rose 2,6% in the third quarter of 2017, after +2,4% in the previous quarter³².

EUMOFA Monthly Highlights is published by the Directorate-General for Maritime Affairs and Fisheries of the European Commission.

Editor: European Commission, Directorate-General for Maritime Affairs and Fisheries, Director-General.

Disclaimer: Although the Maritime Affairs and Fisheries Directorate-General is responsible for the overall production of this publication, the views and conclusions presented in this report reflect the opinion of the author(s) and do not necessarily reflect the opinion of the Commission or its officers.

© European Union, 2017
 KL-AK-17-11-EN-N
 ISSN 2314-9671
 Photographs © Eurofish and Seafish.

Reproduction is authorised, provided the source is acknowledged.

FOR MORE INFORMATION AND COMMENTS:
 Directorate-General for Maritime Affairs and Fisheries
 B-1049 Brussels
 Tel: +32 229-50101
 Email : contact-us@eumofa.eu

THIS REPORT HAS BEEN COMPILED USING EUMOFA DATA AND THE FOLLOWING SOURCES:

First sales: DG MARE; ICCAT; www.fishchoice.com; FAO.

Global supply: European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE); United Nations; FAO; fish-news.com; worldfishing.net; The Danish Agricultural Agency.

Case study: FAO; OFAG; EC; Nielsen Switzerland; Institute of Marine Research, Bergen; Seafish; ACRUNET; IBID.

Consumption: Eurobarometer.

Macroeconomic context: EUROSTAT; ECB; Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; ARVI, Spain; MABUX.

The underlying first-sales data is in a separate Annex available on the EUMOFA website. Analyses are made at aggregated (main commercial species) level.

The **European Market Observatory for Fisheries and Aquaculture Products (EUMOFA)** was developed by the European Commission, representing 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 art. 42].

As a **market intelligence tool**, EUMOFA provides regular weekly prices, 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 24 languages.

EUMOFA website is publicly available at the following address: www.eumofa.eu.

6. Endnotes

¹ Bivalves and other molluscs and aquatic invertebrates, cephalopods, crustaceans, flatfish, freshwater fish, groundfish, miscellaneous aquatic products, other marine fish, salmonids, small pelagics, tuna and tuna-like species.

² <https://www.iccat.int/Documents/Recs/compendiopdf-e/2016-05-e.pdf>

³ https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/tuna_2005_en.pdf .

⁴ <http://eur-lex.europa.eu/legal-content/ET/TXT/PDF/?uri=CELEX:32017R0127&from=EN>

⁵ ICCAT, http://www.iccat.int/com2017/DocENG/PLE_102_ENG.pdf

⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007R0520&from=EN>

⁷ <https://www.cbi.eu/market-information/fish-seafood/fresh-tuna/>

⁸ Bergstad O. A., Hareide N. R. Ling, blue ling, and tusk of the North-East Atlantic, *Fisken og Havet*, 1996, vol. 15 (pp. 1–126).

⁹ COUNCIL REGULATION, 2017/127, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0127&from=EN>

¹⁰ <http://www.fao.org/fishery/species/2220/en>

¹¹ https://ec.europa.eu/fisheries/eu-ministers-agree-fishing-catch-limits-atlantic-and-north-sea-2018_en

¹² <https://www.un.org/press/en/2017/qa11985.doc.htm>

¹³ <https://ec.europa.eu/research/sam/index.cfm?pg=oceanfood>

¹⁴ https://ec.europa.eu/maritimeaffairs/content/eu-and-arctic-partners-agree-prevent-unregulated-fishing-high-seas_en

¹⁵ <http://www.fao.org/in-action/globefish/market-reports/resource-detail/en/c/1070064/>

¹⁶ <http://fish-news.com/cfn/regions-ports-rank-highly-in-noaas-fisheries-of-the-us-report/#sthash.hbNj22it.dpbs>

¹⁷ <http://www.blic.rs/vesti/ekonomija/budimirovic-srbija-bi-mogla-da-proizvodi-ribu-cak-25-puta-vise-nego-sada/tc2cd7p>

¹⁸ The Danish Agricultural Agency <http://eng.lbst.dk/>

¹⁹ <https://www.bfs.admin.ch/bfs/fr/home/statistiques/agriculture-sylviculture/chasse-peche-pisciculture/peche.html>

²⁰ The name given by the Swiss fishermen to the whitefish, coming from the native species *Coregonus fera*, but which has disappeared from Swiss lakes. Whitefish caught in Swiss lakes now include mostly *Coregonus albula* or *Coregonus palaea*.

²¹ EUMOFA classification: main commercial species (MCS).

²² EUMOFA classification.

²³ Office fédéral de l'agriculture OFAG – Bulletin du marché de la viande mars 2017

²⁴ Nielsen Switzerland

²⁵ <http://www.imr.no/temasider/skalldyr/tafiskekrabbe/en>

²⁶ http://www.seafish.org/media/publications/SeafishResponsibleSourcingGuide_CrabsLobsters_201309.pdf

²⁷ EU regulation No. 2406/96 of 26 November 1996 laying down common marketing standards for certain fishery products

²⁸ http://www.acrunet.eu/images/ACRUNET/Technical_Reports/Activity_5/ACRUNET_Technical_Report_Activity5_Action1.pdf

²⁹ Ibid.

³⁰ <http://www.eumofa.eu/documents/20178/22933/Monthly+Highlights+-+N.2-2016.pdf/>

³¹ EUMOFA.

³² <http://ec.europa.eu/eurostat/documents/2995521/8515977/2-07122017-AP-EN.pdf/>