



European Commission



No. 6/2017

**E U M O F A**

European Market Observatory for Fisheries and Aquaculture Products

# MONTHLY HIGHLIGHTS

## CONTENTS

### First sales in Europe

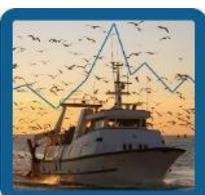
Focus on crab (France, Norway, UK), octopus (France, Italy, Portugal) and cuttlefish (France, Italy, Portugal, UK)

### Global Supply

Case studies: Fisheries in Vietnam; Fish wholesale in Spain

Consumption: Shrimp *Crangon* spp. in the Netherlands

### Macroeconomic context



Find data, information, and more at:

[www.eumofa.eu](http://www.eumofa.eu)

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

## In this issue

In January–April 2017, first-sales value and volume increased in Denmark, Latvia, Norway, and Portugal over January–April 2016. First-sales value of monk increased in Belgium, Denmark, and France and decreased in the UK. Anchovy first-sales volume increased substantially in Portugal and decreased in France and Italy. In April 2017, mackerel first-sales prices increased 16% in Norway, remained stable in Portugal, and decreased in France (–34%), compared with April 2016. At the same time, prices of blue whiting decreased remarkably in both Norway (–47%) and the UK (–44%).

In January–April 2017, crab average unit prices increased in Norway (+105%) and the UK (+12%) and decreased in France (–5%), compared with January–April 2016. Octopus first-sales average prices decreased in France and Italy, but increased in Portugal (+29%). In the same period, first-sales prices of cuttlefish increased significantly in the UK (+46%), Portugal (+24%), and to a lesser extent in France and Italy.

The European Council and the Parliament have reached an agreement on new rules for the sustainable management of the external fishing fleets. The new rules will help improve international ocean governance and the fight against illegal, unreported, and unregulated (IUU) fishing.

Vietnam, one of the world’s largest producers and exporters of seafood, has experienced challenges in recent times. The country has launched a variety of strategies to address these concerns, including investments to upgrade fish hatcheries and improve the overall production chain. The Vietnamese pangasius sector aims to produce new value-added products and focus on the sustainability of the supply chain. The finalisation of a free trade agreement with the EU shows that progress is being made.

Wholesale plays a significant role in the distribution of fish in Spain: about 50% of the fish consumed in Spain goes through a network of wholesale markets (“mercas”), which sold 623.000 tonnes of fresh and frozen fisheries and aquaculture products in 2015.

In January–March 2017, the retail price of shrimp *Crangon* spp. for household consumption in the Netherlands was around 34,00 EUR/kg (peeled) and grew 7% over January–March 2016.

# 1. First sales in Europe

In **January–April 2017**, ten EU Member States and Norway reported first-sales data for 11 commodity groups<sup>1</sup>. Compared with January–April 2016, first-sales increased in both value and volume for Denmark, Latvia, Norway, and Portugal.

In **Belgium** in **January–April 2017**, first sales decreased in both value (–11%) and volume (–10%), from January–April 2016. The main factors in the decrease were the drop on first-sales volumes and values for cuttlefish (–25% in value and –48% in volume), plaice (–16% in value and –14% in volume), and sole (–24% in value and –16% in volume). In **April 2017**, for the same species first-sales value and volume decreased from April 2016. Of these, sole experienced the highest decrease (–42% in value and –36% in volume). Of the major species, cuttlefish experienced the highest average price, while turbot and sole prices decreased –17% and –10%, respectively.

In **Denmark** in **January–April 2017**, first sales increased in both value and volume over January–April 2016. First sales of herring (+37%) and monk (+29%) were the main contributors to the increase in value. Herring (+40%) and cockle (1.070 tonnes, which accounts for 95% of the volume of “other molluscs and aquatic invertebrates”) caused the increase in volume. In **April 2017**, first-sales decreased considerably (–26% in value and –27% in volume), compared with April 2016. The value decrease was caused mainly by shrimp *Crangon* (–50%) and plaice (–33%); mussel (–72%) and herring (–78%) were the main contributors to the decrease in volume. Among the main species, average prices increased for cod (+41%), hake (+28%), and shrimp *Crangon* (+23%) and decreased for Norway lobster (–13%), monk and plaice (both –9%), and sole (–8%).

In **January–April 2017**, **Estonia** experienced decreases in both first-sales value and volume from the same period a year before. Herring (–15% in value and –10% in volume) and sprat (–28% in value and –26% in volume) were responsible for the decreases. In **April 2017**, the decreasing trend continued in value from April 2016. It was caused mainly by herring (–26%) and smelt (–49%). The main factors of the decrease in volume were herring (–23%) and smelt (–47%). By contrast, sprat volume increased 109%. Except for European perch (+32%), the prices of the remaining species experienced an opposite trend: herring (–3%), smelt (–4%), and sprat (–13%).

In **France** in **January–April 2017**, first-sales value increased 2%, while volume decreased slightly (–1%), compared with January–April 2016. Squid had the greatest increase in value (+74%), followed by scallop (+9%) and monk (+6%). Squid also experienced a large increase in volume (+114%); however, it was offset by other species that experienced volume decreases, such as whiting (–15%), cuttlefish (–26%), and red mullet (–49%). In **April 2017**, both first-sales value and volume decreased from April 2016. The decrease in value was mostly linked to sole (–15%), Norway lobster (–10%), whiting (–21%), and red mullet (–25%), whereas the decrease in volume was attributable to whiting (–36%), mackerel (–34%), cuttlefish (–30%), cod (–49%), and Norway lobster (–20%). Among the top species landed, except for monk (–5%), prices increased for scallop

(+16%), Norway lobster (+13%), hake (+10%), European seabass (+6%), and sole (+2%).

In **Italy** in **January–April 2017**, first sales decreased in both value and volume from the same period in 2016. Anchovy (–14%) and clam (–25%) were the main species contributing to the decrease in value. Other species responsible for the decrease were deep-water rose shrimp (–10%) and squillid (–21%). Clam (–34%), sardine (–19%), and squillid (–41%) were the main species responsible for the decrease in volume. In **April 2017**, both first-sales value and volume experienced decreases from April 2016. Hake (–20%), sardine (–37%), anchovy (–11%), and deep-water rose shrimp (–10%) were the species with the largest decreases in value. Anchovy decreased most in volume (–35%). Prices decreased for deep-water shrimp (–13%) and increased for clam (+13%) and red mullet (+4%).

**Latvia** experienced increases in both first-sales value (+1%) and volume (+7%) in **January–April 2017** over January–April 2016. Cod (+114%) was mostly responsible for the value increase. Volume increased because of sprat (+7%), cod (+91%), herring (+2%), and smelt (+74%). In **April 2017**, first-sales value decreased slightly (–1%), while volume experienced an increase (+7%), compared with April 2016. The decrease in value was attributable to herring (–20%), while volume increased mainly because of sprat (+23%). Prices decreased 11% for herring and 8% for sprat. They remained unchanged for cod.

In **Lithuania** in **January–April 2017**, first sales increased significantly in value and decreased in volume. Cod was the main factor in the increase (+55%) and herring in the decrease (–50%). In **April 2017**, first sales experienced lower value and volume from April 2016. The decrease in value was also caused by cod (–33%), while the decrease in volume was attributable to both cod (–36%) and herring (–50%). Prices increased significantly for herring (+46%) and smelt (+40%), and to a lesser degree (+5%) for cod.

In **Norway** in **January–April 2017**, first-sales value increased because of cod (+15%) and haddock (+80%), as well as Greenland halibut (+46%). Volume increased mainly because of blue whiting (+22%) and herring (+28%). In **April 2017**, first-sales value and volume increased over April 2016. The increase in value was attributable to cod (+15%) and haddock (+80%). In addition to herring (+28%) and mackerel (+16%), volume increased mainly because of blue whiting (+22%). Prices decreased remarkably for blue whiting (–47%) and to a lesser extent for saithe (–23%). They experienced an opposite trend for cod (+11%), and haddock (+79%).

In **Portugal** in **January–April 2017**, first sales increased in both value and volume over January–April 2016. This was mainly the result of anchovy, which reached EUR 4,2 million and 1.181 tonnes. Octopus increased in value: EUR 13,5 million (+19%). At the same time, horse mackerel (7.218 tonnes, +13%) and mussel (586 tonnes, +132%) registered significant volume increases. In **April 2017**, the increase over April 2016 in first-sales value was attributable mainly to octopus (+13%) and sole (+57%). Volume decreased mainly for mackerel and (–20%) and octopus (–19%). Prices decreased for horse mackerel (–16%) and sole (–8%), and increased

significantly for octopus (+39%) and cuttlefish (+5%). Prices of anchovy remained unchanged.

In **January–April 2017** in **Spain** (a sample of the 28 most significant ports), landings of fresh fish (69.001 tonnes) decreased 2% from January–April 2016<sup>2</sup>. In **April 2017**, Spain landed 18.535 tonnes of fresh fish, 14% less than in April 2016 and 7% more than in April 2015. Of these, 4.885 tonnes were landed in the port of Vigo (–8% and –13% from April 2016 and April 2015, respectively).

In **Sweden**, the significant decrease in both value and volume in **January–April 2017**, from January–April 2016, was due to herring (–44% in value, –50% in volume) and sprat (–49% in value and –43% in volume). In addition, value also decreased because of Norway lobster (–28%) and Northern prawn (–20%). This trend continued in **April 2017**, relative to April 2016. Values and volumes decreased for herring (–48% and –49%, respectively), cod (–55% and –60%), northern prawn (–19%), and Norway lobster (–25% and –12%). First-sales prices increased significantly for northern prawn (+41%), as well as for cod (+12%) and herring (+2%). They decreased for Norway lobster and sprat (both –15%).

In the **UK** in **January–April 2017**, several species contributed to lower first sales (both value and volume): blue whiting, crab, hake, monk, Norway lobster, saithe, scallop, and sole. Norway lobster (–25%) and hake (–38%), experienced the largest decrease in value, while blue whiting (–24%) and scallop (–22%) saw the largest volume decrease. In **April 2017**, the same trend was confirmed, compared with April 2016. Monk, Norway lobster, and sole, contributed most to the decrease in value. The decrease in volume was caused mainly by saithe, monk, and cod. Average prices increased significantly for cuttlefish (+52%), as well as cod (+23%), scallop (+20%), whiting (+18%), crab (+14%), and monk (+5%). They decreased remarkably for blue whiting (–44%), and to a lesser extent for hake (–11%), Norway lobster (–9%), and sole (–7%).

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

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

| Country        | January–April 2015 |        | January–April 2016 |        | January–April 2017 |        | Change from January–April 2016 |       |
|----------------|--------------------|--------|--------------------|--------|--------------------|--------|--------------------------------|-------|
|                | Volume             | Value  | Volume             | Value  | Volume             | Value  | Volume                         | Value |
| Belgium        | 6.660              | 24,14  | 6.359              | 23,74  | 5.736              | 21,02  | -10%                           | -11%  |
| Denmark        | 70.702             | 79,96  | 57.123             | 92,69  | 61.657             | 93,54  | 8%                             | 1%    |
| Estonia        | 27.607             | 6,08   | 25.670             | 5,90   | 21.168             | 4,70   | -18%                           | -20%  |
| France         | 65.527             | 217,42 | 64.501             | 212,99 | 63.735             | 217,68 | -1%                            | 2%    |
| Italy*         | 25.786             | 95,04  | 23.361             | 91,97  | 21.289             | 85,14  | -9%                            | -7%   |
| Latvia         | 24.041             | 5,97   | 24.758             | 5,37   | 26.495             | 5,42   | 7%                             | 1%    |
| Lithuania      | 688                | 0,52   | 800                | 0,60   | 707                | 0,73   | -12%                           | 22%   |
| Norway         | 1.258.349          | 871,64 | 1.154.261          | 934,98 | 1.243.011          | 954,63 | 8%                             | 2%    |
| Portugal       | 25.738             | 52,67  | 20.867             | 49,33  | 21.847             | 58,32  | 5%                             | 18%   |
| Sweden         | 67.518             | 30,09  | 55.912             | 28,80  | 30.069             | 18,60  | -46%                           | -35%  |
| United Kingdom | 138.495            | 229,25 | 148.065            | 248,84 | 126.993            | 218,35 | -14%                           | -12%  |

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

| Country               | April 2015 |        | April 2016 |        | April 2017 |        | Change from April 2016 |             |
|-----------------------|------------|--------|------------|--------|------------|--------|------------------------|-------------|
|                       | Volume     | Value  | Volume     | Value  | Volume     | Value  | Volume                 | Value       |
| <b>Belgium</b>        | 1.576      | 6,16   | 1.483      | 6,18   | 1.084      | 4,58   | <b>-27%</b>            | <b>-26%</b> |
| <b>Denmark</b>        | 14.742     | 19,69  | 13.493     | 23,67  | 7.879      | 18,44  | <b>-42%</b>            | <b>-22%</b> |
| <b>Estonia</b>        | 5.605      | 1,29   | 3.895      | 1,08   | 3.558      | 0,93   | <b>-9%</b>             | <b>-14%</b> |
| <b>France</b>         | 17.126     | 55,11  | 16.660     | 53,90  | 15.221     | 53,01  | <b>-9%</b>             | <b>-2%</b>  |
| <b>Italy*</b>         | 7.426      | 26,36  | 6.748      | 25,36  | 5.644      | 23,33  | <b>-16%</b>            | <b>-8%</b>  |
| <b>Latvia</b>         | 4.680      | 1,17   | 5.214      | 1,13   | 5.603      | 1,12   | <b>7%</b>              | <b>-1%</b>  |
| <b>Lithuania</b>      | 139        | 0,09   | 235        | 0,14   | 161        | 0,10   | <b>-32%</b>            | <b>-28%</b> |
| <b>Norway</b>         | 328.105    | 213,31 | 233.231    | 188,49 | 291.933    | 196,31 | <b>25%</b>             | <b>4%</b>   |
| <b>Portugal</b>       | 9.861      | 16,33  | 6.697      | 12,91  | 6.620      | 14,28  | <b>-1%</b>             | <b>11%</b>  |
| <b>Sweden</b>         | 10.304     | 5,96   | 9.633      | 5,97   | 6.423      | 3,92   | <b>-33%</b>            | <b>-34%</b> |
| <b>United Kingdom</b> | 29.487     | 57,32  | 21.861     | 46,11  | 19.094     | 40,35  | <b>-13%</b>            | <b>-12%</b> |

Source: EUMOFA (updated 14.06.2017); 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 CRAB, OCTOPUS, AND CUTTLIFISH IN SELECTED COUNTRIES

### 1.1.1. CRAB



Crab is a crustacean found in oceans, in freshwater, and on land. Crab is covered with a thick external skeleton and it grows incrementally only at the time of moulting when the outer shell is cast off.

Crab lives generally in shallow waters with high salinity on stony and rocky substrata. Crab moults frequently (mostly in the warm season) and grows quickly during its early life. However, both the frequency of moulting and the proportional increase in size diminish with age and maturity. When moulting, crab is vulnerable to predators, and its meat has a poor quality<sup>3</sup>.

Many species of crab are caught in European waters. The most widely available is brown/edible crab (*Cancer pagurus*). Other popular species are the spinous spider crab (*Maja squinado*) and the velvet swimming crab (*Necora puber*).

Brown crab can reach up to 30 cm in width (carapace) and 2,5 kg in weight. Spawning takes place in late autumn on sandy bottoms. Eggs take approximately four months to hatch. In winter, brown crab moves deeper, commonly to 30–50 meters, so avoiding the cold water on the surface<sup>4</sup>.

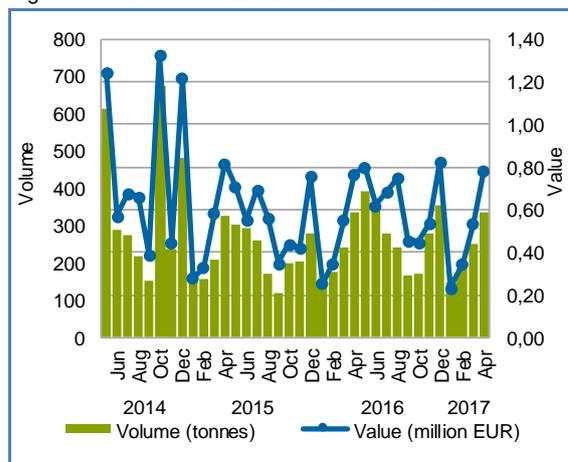
Brown crab is distributed in the eastern Atlantic from northern Norway to northern Africa. However, its main living area is around the British Isles, Ireland, and northern France<sup>5</sup>. It is commonly caught with baited pots and creels, but it can also be included in bycatch of bottom-trawl fisheries. The UK and France are the largest fishery countries for this species<sup>6</sup>.

The brown crab has no EU Total Allowable Catches (TAC) or national quotas. A minimum landing size in the EU is set at 115 mm carapace width<sup>7</sup>.

On the market, crab can be found fresh/live, frozen, or canned.

In **France**, in January–April 2017 first sales of crab decreased 2% in value and increased 3% in volume compared with January–April 2016, reaching EUR 1,90 million and 921 tonnes. Compared with January–April 2015, the same trend was maintained: value decreased 6% and volume increased 9%. On average, approximately 80% of the volume and 70% of the value of crab landings in France consist of spinous spider crab. The rest is mostly brown crab.

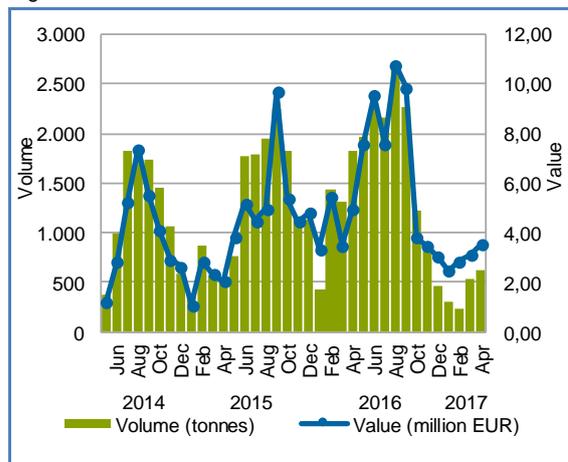
Figure 1. CRAB: FIRST SALES IN FRANCE



Source: EUMOFA (updated 14.06.2017).

In **Norway** in January–April 2017, the first sales of brown crab reached EUR 11,99 million and 1.686 tonnes. They decreased in both value (–31%) and volume (–66%) from January–April 2016. Compared with January–April 2015, first sales experienced an opposite trend in both value (+107%) and volume (+115%).

Figure 2. CRAB: FIRST SALES IN NORWAY



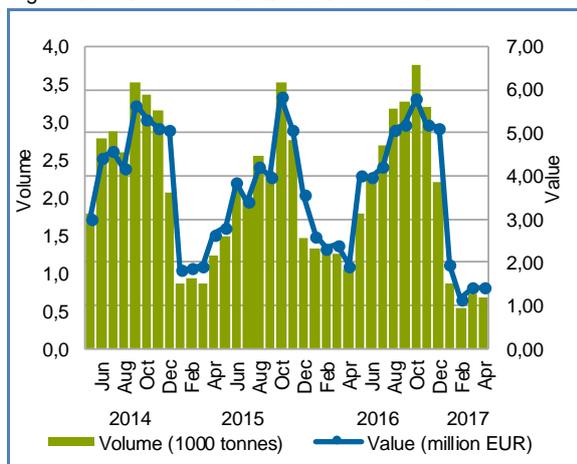
Source: EUMOFA (updated 14.06.2017).

In the **UK** in January–April 2017, the first sales reached EUR 5,94 million and 2.791 tonnes. They decreased significantly in both value (–36%) and volume (–43%) from January–April 2016. Compared with January–April 2015, the trend was maintained, decreasing 28% in both value and volume. Brown crab represents more than 90% of UK crab landings. The remaining is velvet swimming crab, which has become commercially important. The main market for this species is southern Europe (e.g. France and Spain)<sup>8</sup>.

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

First sales: France (June/2013); the UK (6/2014)

Figure 3. CRAB: FIRST SALES IN THE UK



Source: EUMOFA (updated 14.06.2017).

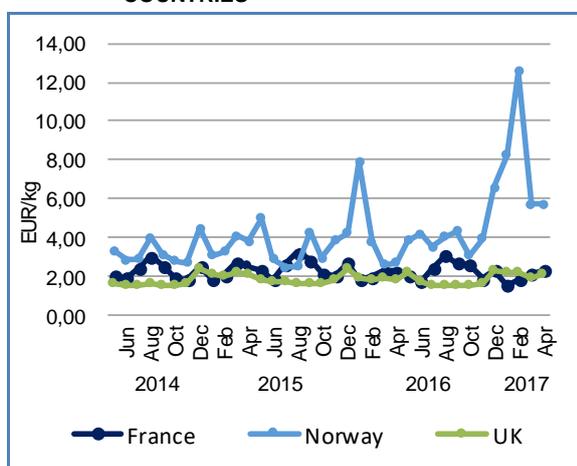
In the past three years, first-sales prices of crab ranged from around 1,50 EUR/kg in the UK to almost 13,00 EUR/kg in Norway. Overall, prices increased in Norway and the UK and demonstrated an opposite trend in France.

In France in January–April 2017, the average unit price of crab was 2,07 EUR/kg, exhibiting a decrease from January–April 2016 (-5%) and January–April 2015 (-14%). In general, prices rose in July–September, peaking in August 2015, reaching 3,27 EUR/kg, corresponding to 173 tonnes.

In Norway, prices vary with supply and are higher in December–February. Price spiked in February 2017, ending at 12,56 EUR/kg for 227 tonnes. In January–April 2017, the average price was 7,11 EUR/kg, displaying a remarkable increase over January–April 2016 (+105%) and January–April 2015 (+98%).

In the countries surveyed, prices in the UK were the lowest. They dropped when the supply was higher, reaching the lowest value (1,54 EUR/kg) in October 2016, when 3.758 tonnes were landed. In January–April 2017, the average price reached 2,13 EUR/kg, 12% higher than in January–April 2016, and it remained stable compared with January–April 2015.

Figure 4. CRAB: FIRST-SALES PRICE IN SELECTED COUNTRIES



Source: EUMOFA (updated 14.06.2017).

1.1.2. OCTOPUS



The octopus is a benthic species found in temperate and tropical waters and in a variety of habitats, such as rocks, coral reefs, and grass beds. The species is inactive in waters 7°C and colder. It has a short biological cycle, is more sensitive to environmental variations, and has limited seasonal migration: in winter it is found in deeper waters and moves to shallower waters during summer.

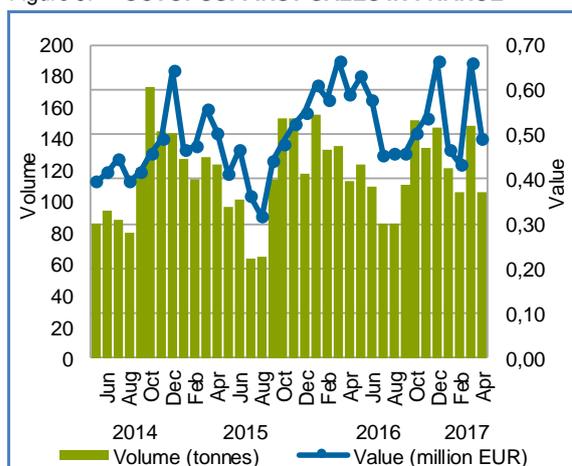
The octopus is distributed in the central-east Atlantic off the coast of Africa, from Morocco to Senegal, the Mediterranean Sea, as well as in the Inland Sea of Japan.

The species has two spawning peaks, which occur in April/May in the Mediterranean Sea and in October in the Inland Sea of Japan. Octopus can reach a total length of 1,2 m for females and 1,3 m for males. It can grow to a maximum weight of 10 kg; however, its average weight is 3 kg<sup>9</sup>.

Octopus is a high-priced species, particularly in the Mediterranean countries, and is fished by both artisanal and commercial fisheries. Common gears used to catch octopus are hooks and lines, pots, spears, and otter trawls. It is marketed fresh, frozen, as well as dried, smoked, and canned. A minimum catch size for octopus is set: 750 g (whole) and 450 g (gutted) in certain European fishing areas, for the protection of the species, and in particular the juveniles<sup>10</sup>.

In France in January–April 2017, the first sales of octopus decreased 16% in value and 10% in volume from January–April 2016, ending at EUR 2,05 million and 480 tonnes. Compared with January–April 2015, the first-sales value increased 3%, while volume was 3% lower.

Figure 5. OCTOPUS: FIRST SALES IN FRANCE

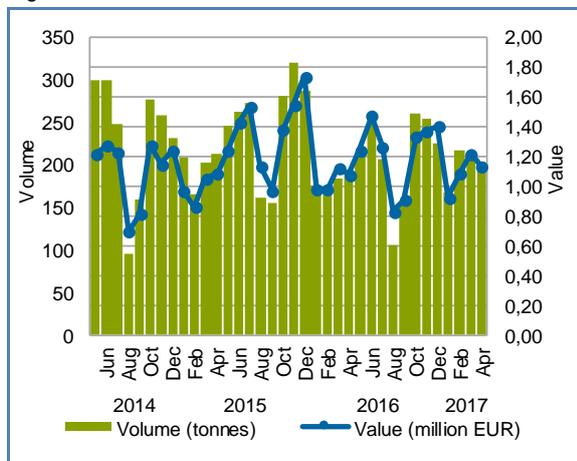


Source: EUMOFA (updated 14.06.2017).

In Italy in January–April 2017, the first sales of octopus increased in both value and volume over January–April 2016, reaching EUR 4,36 million (+5%) and 794 tonnes (+11%). Compared with January–April 2015, the trend

was maintained: first-sales value and volume were 10% and 1% higher, respectively.

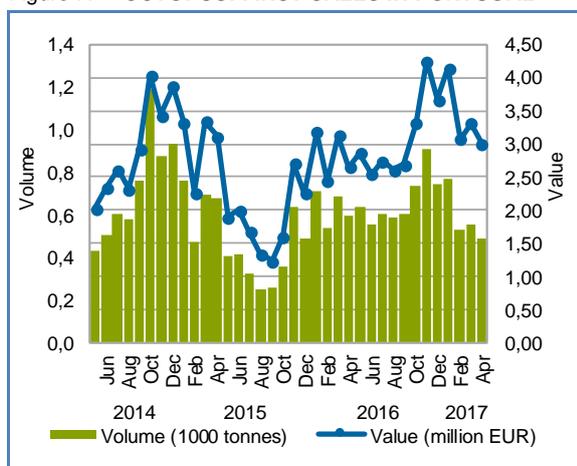
Figure 6. **OCTOPUS: FIRST SALES IN ITALY**



Source: EUMOFA (updated 14.06.2017).

In **Portugal** in January–April 2017, the first sales of octopus increased over January–April 2016 (+4% in value, EUR 0,66 million; +3% in volume, 96 tonnes). Compared with January–April 2015, the first-sales value and volume maintained the trend, increasing remarkably, 21% and 48%, respectively.

Figure 7. **OCTOPUS: FIRST SALES IN PORTUGAL**



Source: EUMOFA (updated 14.06.2017).

Overall, in the past 36 months, the average prices of octopus ranged from 2,65 EUR/kg (October 2014, France) to 7,86 EUR/kg (August 2016, Portugal), and demonstrated an increasing trend in the countries surveyed. On average, the highest prices were registered in Italy.

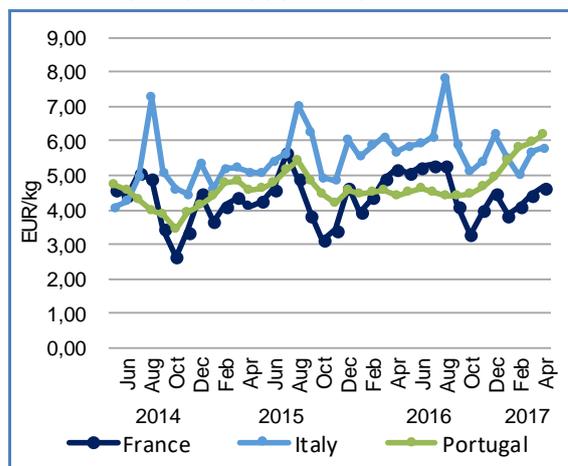
In France in January–April 2017, the average unit price was 4,27 EUR/kg, revealing a decrease (–6%) from January–April 2016. Compared with January–April 2015, the price was 5% higher. Prices are highest in July/August, when the species is less abundant. The highest price was 5,65 EUR/kg (July 2015), when the lowest volume (64 tonnes) was registered.

In Italy in January–April 2017, the average unit price of octopus was 5,49 EUR/kg (–5% and +9% compared with January–April 2016 and January–April 2015,

respectively). Higher prices were typically registered in August, when it was less abundant. The highest price was reached in August 2016 (7,86 EUR/kg), corresponding to 105 tonnes.

In Portugal, prices do not seem to vary seasonally. In January–April 2017, the average unit price was 5,79 EUR/kg, showing a remarkable increase over both January–April 2016 (+29%) and January–April 2015 (+25%). The highest price was registered in April 2017 (6,16 EUR/kg), corresponding to 488 tonnes. In August 2015, when the lowest volume was landed, the price was 5,45 EUR/kg.

Figure 8. **OCTOPUS: FIRST-SALES PRICE IN SELECTED COUNTRIES**



Source: EUMOFA (updated 14.06.2017).

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

First sales: Portugal (3/2016, 1/2015, February/2013, August–September 2013)

### 1.1.3. CUTTLFISH



Cuttlefish can be found from the North Sea, around the British Isles, to the coast of North and West Africa. It is also found in the Mediterranean Sea. English

Channel waters are particularly rich in cuttlefish; however, its geographical distribution varies from year to year.

Cuttlefish lives on sandy or muddy bottoms from shallow waters to approximately 200 m depth. The species feeds on small molluscs, crabs, shrimps, and cuttlefish. Cannibalism is common and has been interpreted as a means to overcome a temporary shortage of adequately sized prey. Spawning take place throughout the year in shallow waters, mostly in water temperatures 13–15°C (between April and July in the Mediterranean). The cuttlefish reproduces only once during its lifetime, around the age of 2, when males measure 14 cm (dorsal length of the mantle) and females 18 cm<sup>11</sup>.

The species is usually caught with trawls (as a target species) and as bycatch in demersal fisheries. The

artisanal fisheries utilise a larger variety of highly selective gear types, such as spears, pots, and traps, often combined with the use of light. A more unusual method is to lure the male cuttlefish with a female cuttlefish attached to a thin line and wait for it to stick to the female before both are pulled up<sup>12</sup>.

Several species of cuttlefish are fished, but the species most frequently landed is the common cuttlefish (*Sepia officinalis*).

Cuttlefish is frequently marketed as fresh and frozen and is a highly attractive food item in Japan, South Korea, Italy, and Spain<sup>13</sup>. There is no minimum regulatory market size.

In **France** in January–April 2017, the first sales of cuttlefish reached EUR 8,09 million and 1.779 tonnes. They were 2% higher in value and 26% lower in volume, than in January–April 2016. Compared with January–April 2015, first-sales value and volume decreased 14% and 50%, respectively.

Figure 9. **CUTTLEFISH: FIRST SALES IN FRANCE**

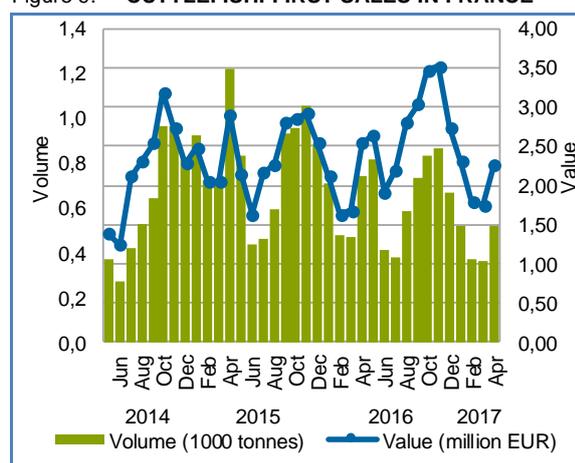
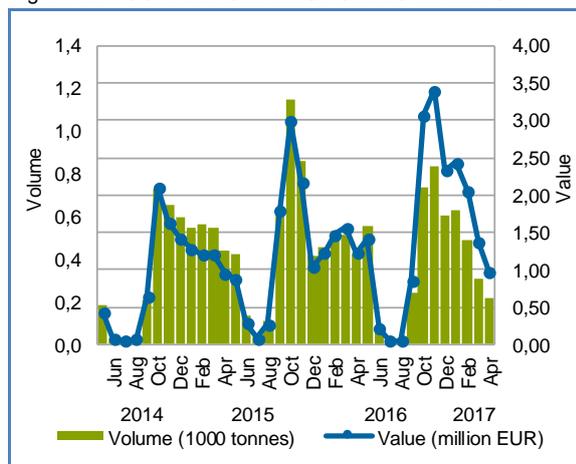


Figure 12. **CUTTLEFISH: FIRST SALES IN THE UK**

Source: EUMOFA (updated 14.06.2017).

In the past three years, first-sales prices of cuttlefish ranged from around 2,00 EUR/kg in the UK to more than 10,00 EUR/kg in Italy and Portugal. On average, the highest prices were registered in Italy, and they were three times higher than in the UK. Except for Portugal, where prices demonstrated an even trend, in the remaining countries prices experienced an increasing trend, mostly in the UK.

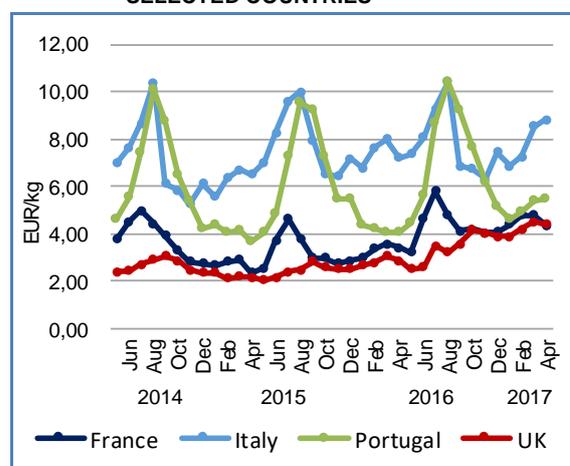
Prices are highest in the summer months, typically from June to August (up to September in Portugal), when most of the spawning occurs. Catches are lower in this period, which may contribute to an increase in first-sales prices.

In France in January–April 2017, the average unit price was 4,55 EUR/kg, demonstrating a 37% increase over January–April 2016. Compared with January–April 2015, the price was remarkably higher (+72%). Prices are highest in June–August, when the species is less abundant. The highest price was 5,79 EUR/kg (July 2016), corresponding to 379 tonnes.

In Italy in January–April 2017, the average unit price of cuttlefish was 7,77 EUR/kg (+5% over January–April 2016 and +24% over January–April 2015). Higher prices were typically registered in June–August, when the supply of cuttlefish decreases. The highest price was reached in August 2016 (10,43 EUR/kg), corresponding to 15 tonnes.

In Portugal, prices also vary with seasonality; typically, they are higher between August–October. In January–April 2017, the average unit price was 5,14 EUR/kg, demonstrating an increase over both January–April 2016 (+24%) and January–April 2015 (+29%). The highest price was registered in August 2016 (10,44 EUR/kg), corresponding to 9 tonnes.

In the UK, the highest price was in March 2017, at 4,50 EUR/kg and 303 tonnes. However, in general, prices were higher in June–August, when the supply of cuttlefish decreases. In January–April 2017, the average unit price was 4,16 EUR/kg, displaying steep increases over January–April 2016 (+46%) and January–April 2015, (+87%).

Figure 13. **CUTTLEFISH: FIRST-SALES PRICE IN SELECTED COUNTRIES**

Source: EUMOFA (updated 14.06.2017).

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

First sales: Portugal (8/2016); France (6/2015, October 2013)

## 2. Global Supply

**Resources / Atlantic salmon:** The European Union provided a voluntary contribution of EUR 300.000 to the North Atlantic Salmon Conservation (NASCO), in support of research aligned with the organisation's key priorities. NASCO's main objective is the management of Atlantic salmon stocks that migrate beyond areas of national jurisdiction, north of the 36th parallel north<sup>14</sup>.

**Resources / Atlantic tuna:** An agreement has been reached between the European Council and the Parliament on how to incorporate into EU legislation measures adopted by the International Commission for the Conservation of Atlantic Tunas (ICCAT). The agreed regulation lays down management, conservation, and control measures applicable in ICCAT's Convention Area, covering all of ICCAT recommendations since 2008, considering the developments in EU legislation, for example concerning IUU fishing<sup>15</sup>.

**Fisheries / Sustainability:** The European Council and the Parliament have agreed on new rules for the sustainable management of external fishing fleets. The agreed regulation will modernise the authorisation of fishing vessels and will apply to all EU vessels fishing outside EU waters, as well as to third-country vessels fishing in EU waters. The newly adopted rules will improve international ocean governance and fight IUU fishing<sup>16</sup>.

**Fisheries / Bluefin tuna:** The Bluefin tuna fishing season in the western and central Mediterranean and Adriatic seas closed at 8 AM on 21 June to purse-seiners. Thanks to the implementation of an international recovery plan and to fishermen's efforts, catch limits for Bluefin tuna were increased in 2017, as the stock showed continued signs of recovery. The 2017 quota has been exhausted for the EU purse-seiner fleet; however, other gear types still have quota available. The European Commission's control team, the European Fisheries Control Agency, and national authorities are monitoring to ensure that caging operations in Spain, Malta, and Croatia are performed according to EU legislation and the standards of the International Commission for the Conservation of Atlantic Tunas (ICCAT)<sup>17</sup>.

**Fisheries / Cod / Barents Sea:** The International Council for the Exploration of the Sea (ICES) recommends that the cod quota in the Barents Sea in 2018 should not exceed 712.000 tonnes, 20% less than in 2017. Quotas for northeast Arctic cod have been at record high levels in recent years. The quota peaked in 2013 (1 million tonnes), and have remained relatively unchanged<sup>18</sup>.

**Fisheries / Mediterranean and Black seas:** The General Fisheries Commission for the Mediterranean (GFCM) has launched the mid-term strategy (2017–2020) for the sustainability of Mediterranean and Black sea fisheries. The strategy's aim is to reverse the declining trend of fish stocks through strengthened scientific advice in support of management. Fisheries in

these basins are currently facing serious challenges, with roughly 90% of the scientifically assessed stocks considered to be fished outside safe biological limits, and with decreasing catches and shrinking fleets at the regional scale. Subsequent targets are to support livelihoods for coastal communities through sustainable small-scale fisheries, to curb IUU fishing, through a regional plan of action, to minimise unwanted interactions between fisheries and marine ecosystems and environment, and to enhance capacity building and co-operation<sup>19</sup>.

**Fisheries / Iceland:** The total catch for Icelandic vessels in May 2017 was 135.031 tonnes, 27% more than in May 2016. The increase is mostly attributable to blue whiting, which ended at 79.369 tonnes (+38% over May 2016). On a year-to-year basis (June 2016–May 2017), the total catch ended at 1.107.384 tonnes, a slight increase (+1%) over the same period a year before<sup>20</sup>.

**Certification / Capelin / Iceland:** An Icelandic fishery association has achieved marine Stewardship Council (MSC) certification for capelin. The certification includes Icelandic vessels targeting capelin with pelagic trawl and purse-seines in Icelandic waters. The fishing target is within the Northeast Atlantic basin (Iceland, East Greenland, and Jan Mayen Areas). Capelin is an important species for the fishmeal industry and is a key feed for larger species. In addition, capelin roe is widely used for sushi<sup>21</sup>.

**Certification / Greenland halibut / Greenland:** A West Greenland offshore fishery has achieved marine Stewardship Council (MSC) certification for Greenland halibut. The species is the most valuable flatfish in Greenlandic waters. Most of the catch is exported to China and Japan for fillets, sushi, and sashimi<sup>22</sup>.

**Canned tuna sector / Italy:** The Italian canned tuna industry had a turnover of EUR 1,2 billion in 2016 (+9% over 2015). Domestic production was 74.000 tonnes (+9% over 2015). Italy is the second largest European producer, after Spain. At the same time, exports reached 23.531 tonnes (+4%). Imports also increased 4,2%, ending at 89.491 tonnes. Italians consumed approximately 150.000 tonnes of canned tuna (+2% over 2015), or approximately 2,4 kg per capita<sup>23</sup>.

**Trade / Norway:** In May 2017, Norway exported 163.000 tonnes of fish and seafood with a value of EUR 805 million (NOK 7,6 billion). Of these, 73.000 tonnes were Atlantic salmon with a value of EUR 562 million (NOK 5,3 billion). The volume of Norway's exports of Atlantic salmon to the EU decreased, while the average price of fresh whole salmon reached 7,71 EUR/kg (69,98 NOK/kg), an increase from 6,37 EUR/kg (60,17 NOK/kg) in May 2016. Poland, France, and Denmark were the largest EU destination markets for the fresh salmon<sup>24</sup>.

## 3. Case studies

### 3.1. FISHERIES IN VIETNAM

Vietnam is a large player in the global seafood industry. In 2015, it was the third largest aquaculture producer and exporter of seafood<sup>25</sup>. Vietnamese export value of fish, crustaceans, molluscs and other aquatic invertebrates reached USD 4,19 billion. This was a 19% decrease from 2014<sup>26</sup>.

Pangasius is the largest aquaculture species produced by Vietnam. It is exported to foreign markets as frozen fillets. From 2007 to 2016, the export share of pangasius to the EU market shrank from 48% to 15%, for various reasons, e.g. the negative image of pangasius and its farming practices, competition with other producing countries (e.g. Myanmar), increased demand from China, the US and the Association of Southeast Asian Nations (ASEAN) countries.

At the same time, Vietnam has experienced radical economic and social growth, offering significant potential for EU businesses. This led in 2012 to negotiations for a free trade agreement (FTA) between the EU and Vietnam. Negotiations were concluded and the legal review of the negotiated text is currently on-going. The agreement is expected to enter into force in early 2018<sup>27</sup>.

#### 3.1.1. PRODUCTION

##### CATCH

Vietnam has an Exclusive Economic Zone (EEZ) of approximately 418.000 km<sup>2</sup> and four principal fishing grounds: (1) The Gulf of Tonkin in the north; (2) the South

China Sea in the central and (3) south-eastern part and (4) the Gulf of Thailand to the southwest. The marine fisheries are mostly small-scale, multi-species and multi-gear with the majority of the fisheries taking place in the coastal waters<sup>28</sup>.

Marine fisheries in Vietnam are required to follow the national fishery law to achieve sustainable and responsible fisheries, but a long trend of financial constraints, weak enforcement, and limited technical capacity to implement action has caused difficulties in achieving a desirable level of detail which can be observed in the reported landing data.

Reported landings in Vietnam are divided into six major groups. Data extraction by species is possible in certain groups (e.g. tuna, bonito, and billfish), whereas for other groups, e.g. marine fish NEI (not elsewhere included) this is difficult or impossible<sup>29</sup>. In 2015, reported Vietnamese catches reached approximately 2,7 million tonnes. Most of the volume is made up of many species in the commodity group marine fish NEI. Of the tuna, bonito, and billfish, skipjack tuna accounted for approximately 70% of the volume in the period 2013–2015, ranging from 55.000 to 75.000 tonnes.

The domestic fleet consists of approximately 113.000 vessels, with 72% belonging to the coastal fleet and 28% to the offshore fleet. The number of vessels will be reduced to 95.000 by 2030, with a plan to increase efficiency, shift from wooden to steel vessels, and modernise receiving harbours<sup>30</sup>.

Table 3. TOP SPECIES GROUPS CAUGHT BY THE VIETNAMESE FLEET (1000 tonnes)

| Species groups                | 2010         | 2011         | 2012         | 2013         | 2014         | 2015         |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Marine fish NEI               | 1.620        | 1.670        | 1.751        | 1.802        | 1.889        | 1.954        |
| Squid, cuttlefish, octopus    | 226          | 252          | 280          | 291          | 315          | 329          |
| Shrimp, prawn                 | 143          | 152          | 156          | 162          | 159          | 169          |
| Tuna, bonito, billfish        | 43           | 51           | 68           | 83           | 85           | 111          |
| Miscellaneous marine molluscs | 36           | 47           | 45           | 47           | 46           | 48           |
| Other                         | 27           | 33           | 37           | 43           | 81           | 64           |
| <b>Total</b>                  | <b>2.094</b> | <b>2.205</b> | <b>2.337</b> | <b>2.429</b> | <b>2.575</b> | <b>2.675</b> |

Source: FAO.

## AQUACULTURE

In 2015, the production volume of pangasius accounted for 34% of the total volume produced reaching 1,17 million tonnes. Vietnam has been and remains the main producer of pangasius globally since 1940, when production started. Production occurs mainly in the Mekong River delta in southern Vietnam.

Vietnamese pangasius is mostly “basa” (*Pangasius bocourti*) or “tra” (*Pangasius hypophthalmus*). In recent years, the sector has consolidated, resulting in more large-scale producers and the closing of several small-scale producers.

The three main on-growing monoculture systems are (1) earth ponds (ranging from 1.000 to 10.000 m<sup>2</sup>) with a

simple design, sited near river tributaries; (2) net cages (ranging from 50 to 1.600 m<sup>3</sup>) also sited near tributaries of the Mekong River delta; and (3) net pens with a stocking density at 40–60/m<sup>2</sup>. The small-scale, integrated-pond, polyculture system is being phased out<sup>31</sup>.

Vietnam is also a notable producer of warm-water shrimp, with a 2015 combined volume of 540.000 tonnes of whiteleg (*vannamei*) and giant tiger prawn (*monodon*). The production of tilapia has also increased steadily, making up for low volume growth in Pangasius over the past 3–4 years. In 2015, Vietnam was the third largest aquaculture producer globally, behind China and India. Most of the aquaculture production in Vietnam occurs in the interior (90%)<sup>32</sup>.

Table 4. TOP SPECIES PRODUCED BY VIETNAMESE AQUACULTURE (1000 tonnes)

| Species           | 2010         | 2011         | 2012         | 2013         | 2014         | 2015         |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Pangasius         | 1.140        | 1.151        | 1.184        | 1.148        | 1.134        | 1.174        |
| Cyprinids         | 469          | 490          | 450          | 406          | 446          | 317          |
| Whiteleg shrimp   | 99           | 140          | 148          | 236          | 353          | 318          |
| Tilapia           | 121          | 173          | 197          | 216          | 244          | 283          |
| Giant tiger prawn | 213          | 194          | 164          | 186          | 240          | 223          |
| Other             | 647          | 711          | 960          | 1.028        | 1.108        | 1.134        |
| <b>Total</b>      | <b>2.689</b> | <b>2.860</b> | <b>3.103</b> | <b>3.220</b> | <b>3.526</b> | <b>3.450</b> |

Source: FAO.

### 3.1.2. TRADE

Vietnam is a major seafood-exporting nation. In 2015 the country had a positive trade balance of USD 4,19 billion. In 2015 Vietnam was the third largest exporter of fish globally, behind China and Norway<sup>33</sup>.

Table 5. VIETNAMESE TRADE BALANCE FOR SEAFOOD (BILLION USD)

| Trade flow     | 2012        | 2013        | 2014        | 2015        |
|----------------|-------------|-------------|-------------|-------------|
| Export         | 5,24        | 5,49        | 6,21        | 5,25        |
| Import         | 0,65        | 0,72        | 1,05        | 1,05        |
| <b>Balance</b> | <b>4,59</b> | <b>4,77</b> | <b>5,15</b> | <b>4,19</b> |

Source: UN Comtrade.

Approximately 49% of Vietnam’s seafood export value includes processed items such as frozen/fresh fillets (CN codes 0304/0305/1604); a large share (44%) of the import value includes fresh/frozen whole products (CN codes 0302/0303). This confirms Vietnam as a significant processing nation and, in light of the FTA with the EU, there is a great future potential for increased foreign investment in the processing industry.

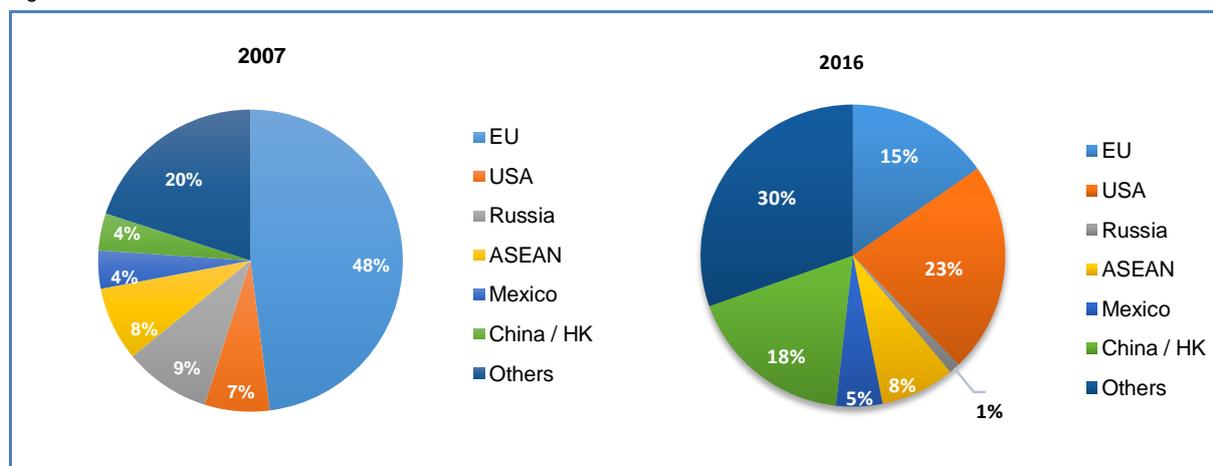
The FTA brings the EU a step closer to an agreement with other ASEAN members. Currently, the EU has also concluded negotiations with Singapore and negotiations are in progress with the Philippines and Indonesia.

ASEAN represents the EU’s third largest trading partner outside Europe (after the US and China), with more than EUR 246 billion of trade in goods and services (2014). The EU is ASEAN’s second largest trading partner after China, accounting for approximately 13% of ASEAN trade<sup>34</sup>.

Because pangasius is the largest species in volume produced by aquaculture in Vietnam, it is naturally a significant export product (frozen fillets), with a total export value of USD 1,7 billion in 2016. Nearly 90% of pangasius production in Vietnam is exported. After harvest, live fish are processed in different forms.

In 2016, the US was the largest market for Vietnamese export (USD 387 million), followed by China/Hong Kong and the EU. The three markets represented 56% of total export value. The EU was the main market for Vietnamese pangasius in the mid-2000s, with a 48% market share in value in 2007. Since then, the market share shrank to 15% in 2016<sup>35</sup>.

Figure 14. SUPPLY SHARE DEVELOPMENT FOR VIETNAMESE PANGASIOUS



Source: VASEP.

### VIETNAM AND THE EU

In 2016, EU import of Vietnamese seafood totalled slightly more than EUR 1 billion and 268.000 tonnes. The most important species imported were tropical shrimp (frozen whole), pangasius (frozen fillets), and clam.

The main EU markets by value were the UK (18%), followed by the Netherlands (15%) and Germany (14%). The most important species in value imported to the UK was tropical shrimp, accounting for 25% of the value and 16% of the volume.

Since 2010, the EU imports of pangasius have declined after a boost in the preceding years. From more than 215.000 tonnes in 2010, the 2016 volume was 105.320 tonnes. All major EU markets have seen a stable decrease, except for the UK, which increased 28% since 2010.

The decrease in the recent years has been caused mainly by concern over the production cycle (proportion of pollution in fish farms). The image of pangasius in Europe and other countries has been negatively affected by media reports and by campaigns in individual markets. In general, the pangasius industry is viewed as massive, production-driven, and a cause of negative impacts on the environment. The latter were related to the unsanitary conditions of water in the Mekong River (pollution, bacteria, industrial effluents, toxins, etc.), inferior quality of fish feed, and exploitation of workers. Several large retailers in the EU are now withdrawing pangasius as a result.

Table 6. TOP EU MARKETS FOR SEAFOOD IMPORTS FROM VIETNAM (million EUR and 1000 tonnes)

| Country                | 2014  |        | 2015  |        | 2016  |        |
|------------------------|-------|--------|-------|--------|-------|--------|
|                        | Value | Volume | Value | Volume | Value | Volume |
| <b>UK</b>              | 126   | 27     | 172   | 28     | 182   | 30     |
| <b>The Netherlands</b> | 102   | 31     | 130   | 30     | 153   | 33     |
| <b>Germany</b>         | 161   | 46     | 161   | 34     | 141   | 28     |
| <b>Italy</b>           | 109   | 40     | 111   | 38     | 119   | 40     |
| <b>France</b>          | 115   | 28     | 120   | 27     | 113   | 24     |
| <b>Other</b>           | 317   | 126    | 324   | 110    | 322   | 113    |
| <b>Total</b>           | 930   | 298    | 1.018 | 267    | 1.030 | 268    |

Source: EUMOFA.

Table 7. TOP MAIN COMMERCIAL SPECIES IMPORTED FROM VIETNAM (million EUR and 1000 tonnes)

| Species         | 2014       |            | 2015         |            | 2016         |            |
|-----------------|------------|------------|--------------|------------|--------------|------------|
|                 | Value      | Volume     | Value        | Volume     | Value        | Volume     |
| Tropical shrimp | 202        | 25         | 222          | 25         | 244          | 28         |
| Pangasius       | 235        | 131        | 250          | 113        | 222          | 108        |
| Clam            | 32         | 22         | 36           | 21         | 40           | 26         |
| Skipjack tuna   | 0          | 0          | 33           | 11         | 27           | 10         |
| Yellowfin tuna  | 17         | 5          | 19           | 6          | 25           | 7          |
| Other           | 444        | 115        | 457          | 91         | 472          | 89         |
| <b>Total</b>    | <b>930</b> | <b>298</b> | <b>1.017</b> | <b>267</b> | <b>1.030</b> | <b>268</b> |

Source: EUMOFA.

In 2016, EU exports of seafood to Vietnam totalled EUR 224 million and 53.000 tonnes. The most important species exported by value were Greenland halibut (59%), salmon (12%), and trout (5%).

In 2016, the main EU exporter was Denmark (47%), followed by Spain (16%) and Poland (10%). The most important seafood product exported from Denmark was

Greenland halibut (whole frozen) and trout (whole frozen). Greenland halibut accounted for 85% of the Danish export value and 78% of the volume, while trout accounted for 8% of the value and 11% of the volume.

Poland was the main supplier of salmon (frozen fillets) to Vietnam, accounting for 74% of the Polish export value and 66% of the volume.

Table 8. TOP EU MEMBER STATES EXPORTING TO VIETNAM (million EUR and 1000 tonnes)

| Country      | 2014       |           | 2015       |           | 2016       |           |
|--------------|------------|-----------|------------|-----------|------------|-----------|
|              | Value      | Volume    | Value      | Volume    | Value      | Volume    |
| Denmark      | 56         | 13        | 72         | 15        | 106        | 20        |
| Spain        | 39         | 9         | 48         | 12        | 36         | 7         |
| Poland       | 23         | 5         | 23         | 6         | 22         | 5         |
| UK           | 12         | 8         | 12         | 8         | 21         | 10        |
| France       | 25         | 3         | 19         | 2         | 15         | 2         |
| Other        | 12         | 10        | 17         | 6         | 24         | 9         |
| <b>Total</b> | <b>165</b> | <b>48</b> | <b>189</b> | <b>49</b> | <b>224</b> | <b>53</b> |

Source: EUMOFA.

Table 9. TOP MAIN COMMERCIAL SPECIES EXPORTED TO VIETNAM (million EUR and 1000 tonnes)

| Species           | 2014       |           | 2015       |           | 2016       |           |
|-------------------|------------|-----------|------------|-----------|------------|-----------|
|                   | Value      | Volume    | Value      | Volume    | Value      | Volume    |
| Greenland halibut | 84         | 18        | 100        | 18        | 132        | 23        |
| Salmon            | 25         | 6         | 25         | 10        | 27         | 9         |
| Trout             | 7          | 2         | 7          | 2         | 12         | 3         |
| Toothfish         | 21         | 1         | 14         | 1         | 11         | 0         |
| Horse mackerel    | 0          | 0         | 1          | 1         | 3          | 2         |
| Other             | 28         | 21        | 42         | 17        | 39         | 16        |
| <b>Total</b>      | <b>165</b> | <b>48</b> | <b>189</b> | <b>49</b> | <b>224</b> | <b>53</b> |

Source: EUMOFA.

### 3.1.3. FUTURE DEVELOPMENT

In order to strengthen the industry and boost production growth, the Ministry of Agriculture and Rural Development of Vietnam approved a five-year plan to increase the production of farmed pangasius to 1,6 million tonnes by 2020. Implementation of the plan began in 2015 with investments to expand infrastructure at farming areas, upgrade fish hatcheries, and improve the overall production chain. At the same time, the local pangasius sector aims to produce new value-added products and focus on the sustainability of the supply chain<sup>36</sup>.

This year, the first container of Vietnamese oysters was exported to the EU, including Italy. With a production capacity of 30.000 tonnes, it has the potential of becoming a significant export to the EU market, targeting supermarkets and the HoReCa market. A key to establishing the export of such species, grown in northern Nam Dinh province, is meeting strict EU requirements and Italian regulations concerning health and environmental issues<sup>37</sup>.

## 3.2. FISH WHOLESale IN SPAIN

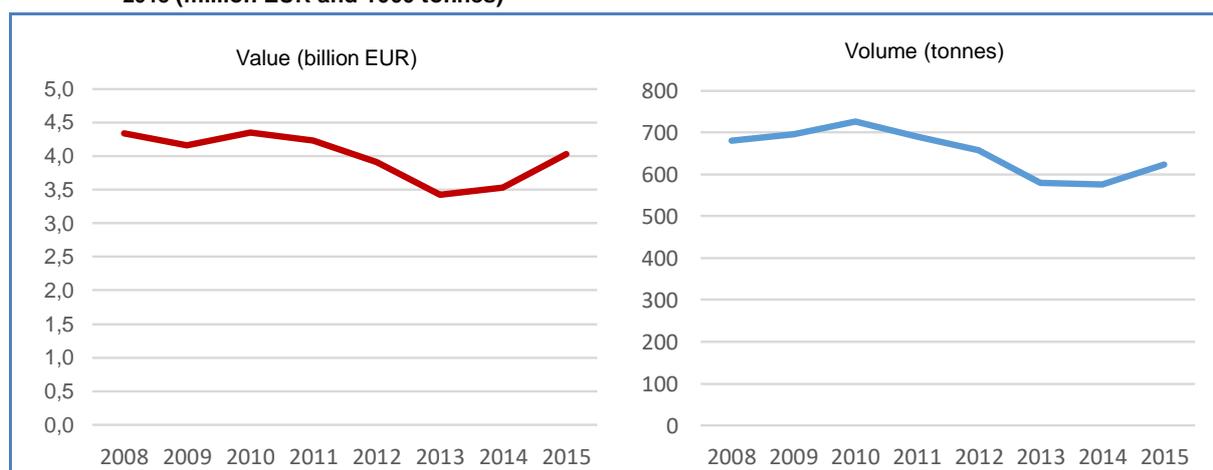


### 3.2.1. ROLE OF WHOLESale IN SPANISH FISH DISTRIBUTION

Wholesale distribution in Spain is mainly structured around a network of 23 wholesale markets (mercás) managed by a state-owned enterprise, MERCASA, of which 21 trade fish market. The network's total sales of

fresh and frozen fisheries and aquaculture products amounted to 623.000 tonnes in 2015, for a value exceeding EUR 4,0 billion. Approximately 50% of the total national consumption of fish (households and out of home) is sold through the network of mercás. In comparison, this rate is approximately 60% for fruit and vegetables and 30% for unprocessed meat. The year 2015 was the first to experience an overall volume increase since 2010. Still, 2015 volumes remained more than 100.000 tonnes below the 2010 level (-14%). The 2015 value was EUR 320 million below the 2010 value (-7%). The two leading wholesale markets, Mercabarna and Mercamadrid, represent 62% of the value and 57% of the volume of this total. The volume of fisheries and aquaculture products in 2015 (i.e. 623.000 tonnes) includes the commercial activity brought by the zones of complementary activities (ZACs) located in the mercás. Not including the ZACs, the volume of fresh and frozen fisheries and aquaculture products in 19 Spanish wholesale markets ended at 454.510 tonnes in 2015 (see Table 10).

Figure 15. SALES OF FRESH AND FROZEN FISHERIES AND AQUACULTURE PRODUCTS IN SPANISH MERCAS IN 2015 (million EUR and 1000 tonnes)



Source: MERCASA.

Table 10. SALES OF FRESH AND FROZEN FISHERIES AND AQUACULTURE PRODUCTS IN SPANISH WHOLESale MARKETS IN 2015

| Mercas        | Volume (tonnes) |
|---------------|-----------------|
| Mercalgeciras | 2.045           |
| Mercabadajoz  | 847             |
| Mercabarna    | 73.288          |
| Mercabilbao   | 27.395          |
| Mercacórdoba  | 6.288           |
| Mercagalicia  | 320             |
| Mercagranada  | 10.406          |
| Mercairuña    | 3.646           |

|                |                |
|----------------|----------------|
| Mercajerez     | 291            |
| Mercalaspalmas | 2.820          |
| Mercaleón      | 1.220          |
| Mercamadrid    | 133.546        |
| Mercamálaga    | 38.384         |
| Mercamurcia    | 1.016          |
| Mercapalma     | 9.873          |
| Mercasalamanca | 1.098          |
| Mercasevilla   | 24.833         |
| Mercavalencia  | 95.966         |
| Mercazaragoza  | 21.228         |
| <b>Total</b>   | <b>454.510</b> |

Source: MERCASA.

Mercamadrid is the leading wholesale market for fresh and frozen products.

Mercabarna in particular has a huge ZAC, which includes:

- companies specialising in the handling, preparation, packaging, conservation, distribution, importing, and exporting of all types of fresh and frozen fish products;

- purchasing centres of the large-scale, food-retailing chains that source their fresh produce from Mercabarna;

- companies that specialise in supplying the catering industry.

In volume, the main species sold fresh are small pelagics (anchovy, sardine, and horse mackerel) 18%, merluccidae 15%, mussel 9%, and salmon 7%. Leading frozen products and their volumes are cephalopods 24%, shrimp 18%, and merluccidae 14%.

### FOCUS ON FRESH PRODUCTS

The 19 wholesale markets sold 334.600 tonnes of fresh fisheries and aquaculture products in 2015, of which 259.300 tonnes were fish and 75.300 tonnes were crustaceans and molluscs. Madrid was the leading market (75.500 tonnes) for fresh fish, surpassing Barcelona (41.300 tonnes), Valencia (40.300 tonnes), and Malaga (32.800 tonnes).

For fresh crustaceans and molluscs, Valencia (22.300 tonnes) and Barcelona (21.300 tonnes) were clearly ahead of Madrid (11.800 tonnes) and Bilbao (5.400 tonnes).

Table 11. **SALES OF FRESH FISHERIES AND AQUACULTURE PRODUCTS IN SPANISH WHOLESALE MARKETS IN 2015**

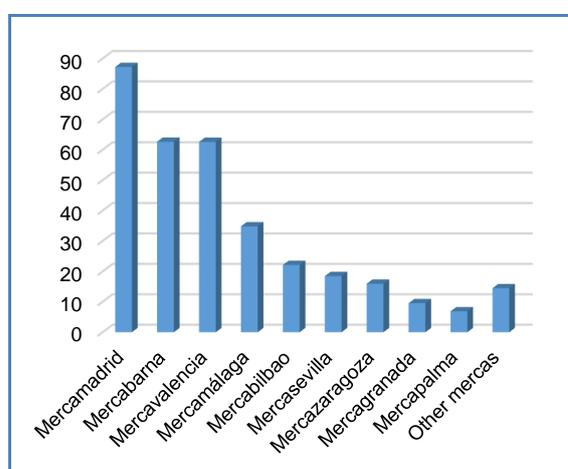
| Mercas         | Fish (tonnes) | Crustaceans & molluscs | Total fresh (tonnes) |
|----------------|---------------|------------------------|----------------------|
| Mercalgeciras  | 1.465         | 266                    | 1.731                |
| Mercabadajoz   | 693           | 105                    | 798                  |
| Mercabarna     | 41.301        | 21.333                 | 62.634               |
| Mercabilbao    | 16.675        | 5.432                  | 22.107               |
| Mercacórdoba   | 4.323         | 1.148                  | 5.471                |
| Mercagalicia   | -             | 320                    | 320                  |
| Mercagranada   | 7.124         | 2.404                  | 9.528                |
| Mercairuña     | 2.960         | 450                    | 3.410                |
| Mercajerez     | 191           | 100                    | 291                  |
| Mercalaspalmas | 10            | -                      | 10                   |
| Mercaleón      | 981           | 235                    | 1.216                |
| Mercamadrid    | 75.460        | 11.769                 | 87.229               |
| Mercamálaga    | 32.784        | 2.025                  | 34.809               |
| Mercamurcia    | 89            | 42                     | 131                  |
| Mercapalma     | 4.643         | 2.226                  | 6.869                |
| Mercasalamanca | 917           | 178                    | 1.095                |

|               |                |               |                |
|---------------|----------------|---------------|----------------|
| Mercasevilla  | 15.460         | 3.001         | 18.461         |
| Mercavalencia | 40.321         | 22.268        | 62.589         |
| Mercazaragoza | 13.926         | 2.012         | 15.938         |
| <b>Total</b>  | <b>259.323</b> | <b>75.314</b> | <b>334.637</b> |

Source: MERCASA.

Overall, the main fish species were hake (49.000 tonnes), anchovy (32.600 tonnes in 2015), salmon (23.800 tonnes), sardine (20.400 tonnes), blue whiting (16.500 tonnes), and seabream (11.800 tonnes). Leading crustaceans and molluscs were mussel (28.700 tonnes), squid (7.600 tonnes), cuttlefish (7.200 tonnes), striped venus (5.800 tonnes), and clam (5.500 tonnes).

Figure 16. **RANKING OF FISH WHOLESALE MARKETS FOR FRESH FISH, CRUSTACEANS AND MOLLUSCS IN 2015 (1000 tonnes)**



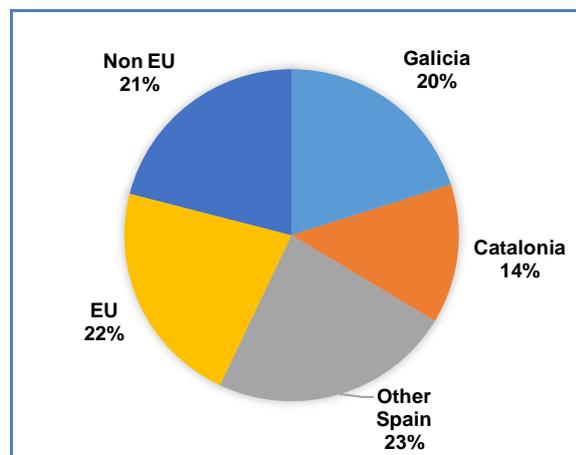
Source: MERCASA.

### 3.2.2. MERCABARNA

In 2016, the fish wholesale market of Barcelona sold 60.094 tonnes of fresh fisheries and aquaculture products (-2,7% from 2015) for a value of EUR 439 million (+4,4%). The average price rose from 6,80 to 7,30 EUR/kg. Main species sold are hake (8.428 tonnes), mussel (7.446 tonnes), monkfish (5.182 tonnes), salmon (4.079 tonnes), and tuna (2.628 tonnes).

#### FRESH FISH

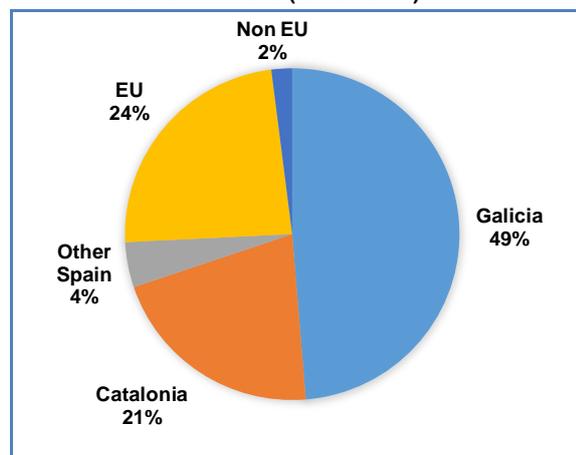
More than half (57% in 2016) of fresh fish volumes sold in Mercabarna were of Spanish origin, mainly Galicia, Catalonia, and the Cantabrian Coast. The rest were equally supplied by the EU (22%) and non-EU (21%) countries.

Figure 17. **MERCABARNA: SALES OF FRESH FISH BY ORIGIN IN 2016 (% VOLUME)**

Source: EUMOFA based on MERCABARNA.

### FRESH CRUSTACEANS AND MOLLUSCS

Fresh crustaceans and molluscs (predominantly molluscs) are provided by Galicia (49%), the EU (24%), and Catalonia (21%). The main EU suppliers are France, Italy, and the UK.

Figure 18. **MERCABARNA: SALES OF FRESH CRUSTACEANS AND MOLLUSCS BY ORIGIN IN 2016 (% VOLUME)**

Source: EUMOFA based on MERCABARNA.

### 3.2.3. MERCAMADRID

In 2016, Mercamadrid marketed 89.978 tonnes of fresh fisheries and aquaculture products (3,2% over 2015).

This positive trend did not continue during the first five months of 2017, which saw volumes sold decrease 6%,

mainly because of falls registered by two major imported species, salmon (-25%) and cod (-13%).

In 2017, 32% (10.962 tonnes) of the fresh products sold in the first five months by Mercamadrid were imported; the main suppliers were Norway, mainly for salmon (2.581 tonnes), and France for hake (1.439 tonnes), anchovy (263 tonnes), sardine, tuna, cod, and squid. Other foreign suppliers were Turkey and Greece (both for farmed seabass and seabream), Denmark (salmon, cod, and hake), Italy (red mullet, striped venus, anchovy, and sardine), Portugal (tuna and anchovy), the Netherlands (sole and hake), and Morocco (swordfish and octopus).

The supply of Spanish origin (68% of the total) comes mainly from Galicia, Basque Country, Andalusia, and Murcia. More specifically, the main provinces supplying Mercamadrid are Pontevedra (Vigo), which provides hake, squid, mussel, sardine, clam, tuna, cod, anchovy, megrim, dab, and seabream; La Coruña, which delivers hake, mussel, and farmed turbot; Guipuzcoa (Basque Country), which supplies hake, sole, pollack, saithe, tuna, conger, and megrim; and Murcia for farmed products (sea-ranched tuna, seabass, seabream).

Table 12. **SALES OF FRESH FISHERIES AND AQUACULTURE PRODUCTS IN MERCAMADRID WHOLESALE MARKET IN 2016 AND 2017 (JANUARY–MAY), IN TONNES**

| Species      | Jan-May 2016  | Jan-May 2017  |
|--------------|---------------|---------------|
| Hake         | 7.347         | 7.606         |
| Salmon       | 6.404         | 4.829         |
| Sardine      | 1.254         | 1.719         |
| Seabass      | 1.787         | 1.609         |
| Seabream     | 2.534         | 2.633         |
| Anchovy      | 2.769         | 2.017         |
| Cod          | 1.407         | 1.223         |
| Tuna         | 2.920         | 2.466         |
| Squid        | 1.488         | 1.265         |
| Megrim       | 959           | 1.010         |
| Mussel       | 876           | 923           |
| Other        | 7.074         | 7.362         |
| <b>Total</b> | <b>36.819</b> | <b>34.662</b> |

Source: MERCASA.

## 4. Consumption

### HOUSEHOLD CONSUMPTION IN THE EU

In March 2017, the consumption of fresh fisheries and aquaculture products increased in both volume and value in France (+3% and +4%, respectively), Italy (+4% and +5%), and Spain (+2% and +9%) relative to March 2016. In Ireland and the UK, value remained the same; however, volume decreased (-2% and -5%, respectively). In the rest of the Member States analysed, volume and value decreased.

The largest drop in volume and value in March 2017 was observed in Hungary (-57% in volume and -53% in value), followed by Sweden (-39% in volume and 30% value). The high decrease in Hungary has probably to be linked to the fact that Easter, period of high consumption for carp, was in March in 2016 and in April in 2017.

However, compared with February 2017, both volume and value increased in Germany, Ireland, the Netherlands, Poland, Portugal, Sweden, and the UK.

Table 13. MARCH OVERVIEW OF THE REPORTING COUNTRIES (volume in tonnes and value in million EUR)

| Country     | Per capita consumption 2014* (live weight equivalent) Kg/capita/year | March 2015 |        | March 2016 |        | February 2017 |        | March 2017 |        | Change from March 2016 to March 2017 |       |
|-------------|--|------------|--------|------------|--------|---------------|--------|------------|--------|--------------------------------------|-------|
|             |  | Volume     | Value  | Volume     | Value  | Volume        | Value  | Volume     | Value  | Volume                               | Value |
| Denmark     | 22,1   | 774        | 11,22  | 770        | 11,67  | 629           | 9,78   | 557        | 8,60   | -28%                                 | -26%  |
| Germany     | 13,3   | 5.284      | 75,48  | 6.897      | 100,53 | 5.821         | 80,07  | 5.924      | 88,88  | 14%                                  | 12%   |
| France      | 34,4   | 18.363     | 193,00 | 19.226     | 216,78 | 16.501        | 194,39 | 19.779     | 224,55 | 3%                                   | 4%    |
| Hungary     | 4,6  | 536        | 2,42   | 516        | 2,53   | 269           | 1,52   | 222        | 1,18   | -57%                                 | -53%  |
| Ireland     | 23,0   | 1.423      | 18,77  | 1.442      | 19,71  | 1.218         | 16,64  | 1.409      | 19,73  | -2%                                  | 0%    |
| Italy       | 28,9   | 28.253     | 252,56 | 27.710     | 249,90 | 29.654        | 269,52 | 28.846     | 261,79 | 4%                                   | 5%    |
| Netherlands | 22,6   | 2.268      | 30,10  | 2.392      | 34,80  | 1.987         | 25,48  | 2.148      | 30,23  | 10%                                  | 13%   |
| Poland      | 13,0   | 5.782      | 31,36  | 5.966      | 32,37  | 4.408         | 24,16  | 5.430      | 29,42  | 9%                                   | 9%    |
| Portugal    | 55,3   | 4.216      | 23,93  | 5.923      | 35,51  | 4.140         | 27,61  | 5.229      | 34,81  | 12%                                  | 2%    |
| Spain       | 46,2   | 59.481     | 405,80 | 60.107     | 421,21 | 51.842        | 385,83 | 61.163     | 457,98 | 2%                                   | 9%    |
| Sweden      | 33,2   | 865        | 10,07  | 1.043      | 12,79  | 590           | 8,49   | 638        | 8,99   | -39%                                 | -30%  |
| UK          | 24,9   | 30.463     | 351,14 | 30.672     | 339,37 | 24.893        | 262,64 | 30.519     | 322,51 | 0%                                   | -5%   |

Source: EUMOFA, based on Europanel (updated 14.06.2017).

\* 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/20178/77960/The+EU+fish+market+-+2016+Edition.pdf>

Generally, in March in the past three years, consumption of fisheries and aquaculture products followed an increasing trend in both volume and value in France, Italy, and Spain. Despite the decrease in consumption in March 2017 compared with March 2016, Germany and Portugal recorded an overall increasing trend in consumption in March in the past three years.

In March, the household consumption in volume and value of fresh fish products was above the yearly average for the past three years in most Member States analysed, except for Denmark, Hungary, and Sweden. In Hungary, volume and value were below the yearly average (-56% and -43%, respectively, registering the lowest below-average volumes and values since 2014).

In Denmark, volume was 24% below the yearly average, 3% lower than Sweden (-23%). Value was 19% below the average in Denmark and 15% in Sweden.

Ireland registered the highest above-average volumes and values (+46% and +50%, respectively), followed by Germany (+11% and +25%).

### 4.1. SHRIMP CRANGON SPP.



**Habitat:** A crustacean living mainly on shallow, muddy coastal bottoms, from a few metres to approximately 40 m depth<sup>38</sup>.

**Catch area:** From North Atlantic (Norway, Iceland) to North African waters and the Mediterranean<sup>39</sup>.

**Main producing countries in Europe:** The Netherlands, Germany, Denmark, Belgium, the UK<sup>40</sup>.

**Production method:** Caught.

**Main consumers in the EU:** Belgium, the Netherlands, Germany, France<sup>41</sup>.

**Presentation:** Whole, peeled.

**Preservation:** Fresh, frozen.

**Ways of preparation:** Boiled, grilled.

We have covered **shrimp crangon spp.** in previous *Monthly Highlights*:

First sales: Denmark (7/2016)

Topic of the month: the Netherlands (October 2013)

Trade: Intra-EU exports (11/2016)

#### GENERAL OVERVIEW OF HOUSEHOLD CONSUMPTION IN THE NETHERLANDS

Overall, per capita consumption in the Netherlands is below average in the EU. The per capita consumption of fish and seafood products in the country in 2014 was 22,6 kg and decreased 3% from 2013. It was 11% lower

than the EU average per capita consumption (25,5 kg), and 59% lower than the highest per capita consumption in the EU, 55,3 kg, which was registered in Portugal. See more on per capita consumption in the EU in Table 13.

#### CONSUMPTION TREND IN THE NETHERLANDS

**Long-term trend, January 2013–March 2017:** increased in price and decreased in volume.

**Average price:** 30,50 EUR/kg (2013), 27,25 EUR/kg (2014), 25,23 EUR/kg (2015), 38,44 EUR/kg (2016).

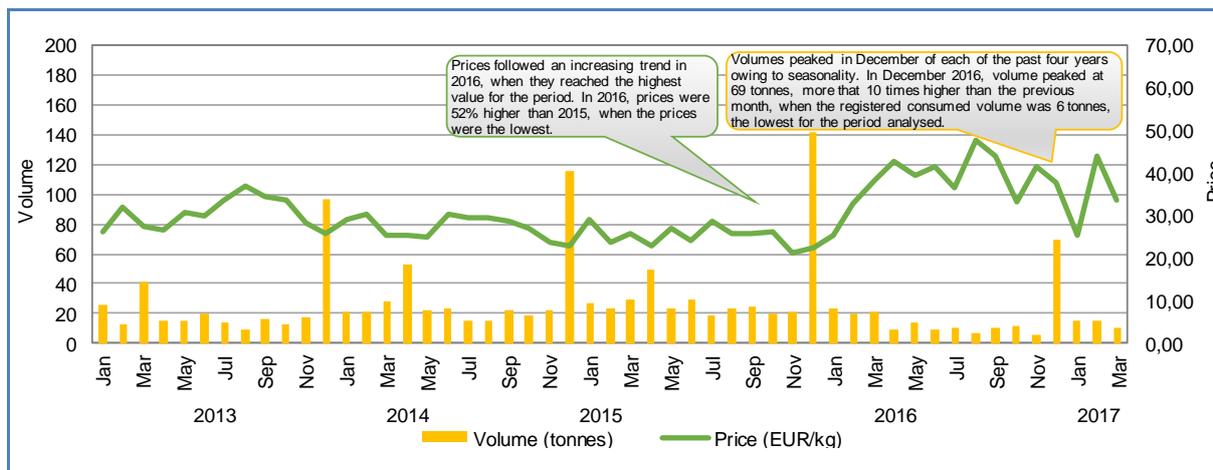
**Total consumed volume:** 296 tonnes (2013), 376 tonnes (2014), 429 tonnes (2015), 210 tonnes (2016).

**Short-term trend, January–March 2017:** increased in value and decreased in volume.

**Average price:** 34,31 EUR/kg.

**Total consumed volume:** 40 tonnes.

Figure 19. RETAIL PRICE AND VOLUME OF SHRIMP CRANGON SPP. IN THE NETHERLANDS

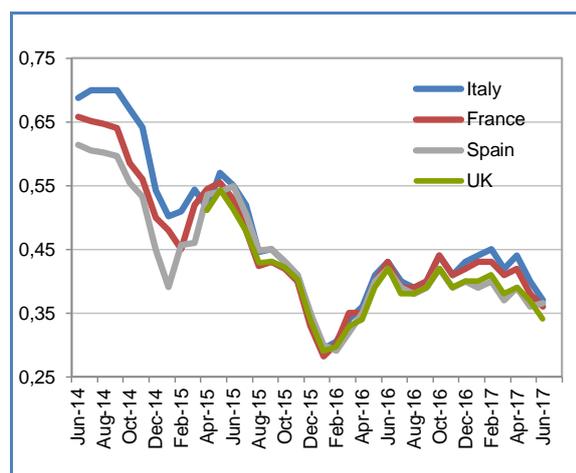


Source: EUMOFA (updated 14.06.2017).

## 5. Macroeconomic context

### 5.1. MARINE FUEL

Figure 20. **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–April 2015); MABUX (June 2015–June 2017).

In June 2017, the fuel price in the French ports of Lorient and Boulogne was 0,36 EUR/litre a 5% decrease from May 2017. It decreased 16% from June 2016.

In the Italian ports of Ancona and Livorno, the average price of marine fuel in June 2017 was 0,37 EUR/litre. It decreased 8% from the previous month and 14% from June 2016.

The price of marine fuel in the ports of A Coruña and Vigo, Spain, in June 2017, increased 2% to 0,37 EUR/litre. It decreased 13% from June 2016.

The fuel price observed in the UK ports of Grimsby and Aberdeen was 0,34 EUR/litre in June 2017, a 8% decrease from the previous month and 19% decrease from the same month a year ago.

### 5.2. FOOD AND FISH PRICES

In May 2017, annual EU inflation was 1,6%, down from 2,0% in April 2017. A year earlier, the rate was -0,1%. In May 2017, the lowest annual rates were recorded in Ireland (0,0%), Romania (+0,5%), Denmark and the Netherlands (both +0,7%), while the highest annual rates were registered in Estonia (+3,5%), Lithuania (+3,2%), and the United Kingdom (+2,9%).

Compared with April 2017, annual inflation rose in 3 Member States (Czech Republic, Slovakia, and the United Kingdom), remained stable in Malta, and fell in 24.

In May 2017, prices of both food and non-alcoholic beverages and fish and seafood increased slightly 0,3% and 0,6%, respectively, compared with April 2017.

Compared with May 2016, both food and fish prices increased 1,7% and 4,1%, respectively. Compared with May 2015, fish and seafood prices increased 6,8%, while food and non-alcoholic beverages increased 1,7%.

Table 14. **HARMONISED INDEX OF CONSUMER PRICES IN THE EU (2015 = 100)**

| HICP                                    | May 2015 | May 2016 | Apr 2017 | May 2017      |
|---|----------|----------|----------|---------------|
| <b>Food and non-alcoholic beverages</b> | 100,63   | 100,55   | 101,97   | <b>102,30</b> |
| <b>Fish and seafood</b>                 | 99,33    | 101,93   | 105,43   | <b>106,07</b> |

Source: Eurostat.

### 5.3. EXCHANGE RATES

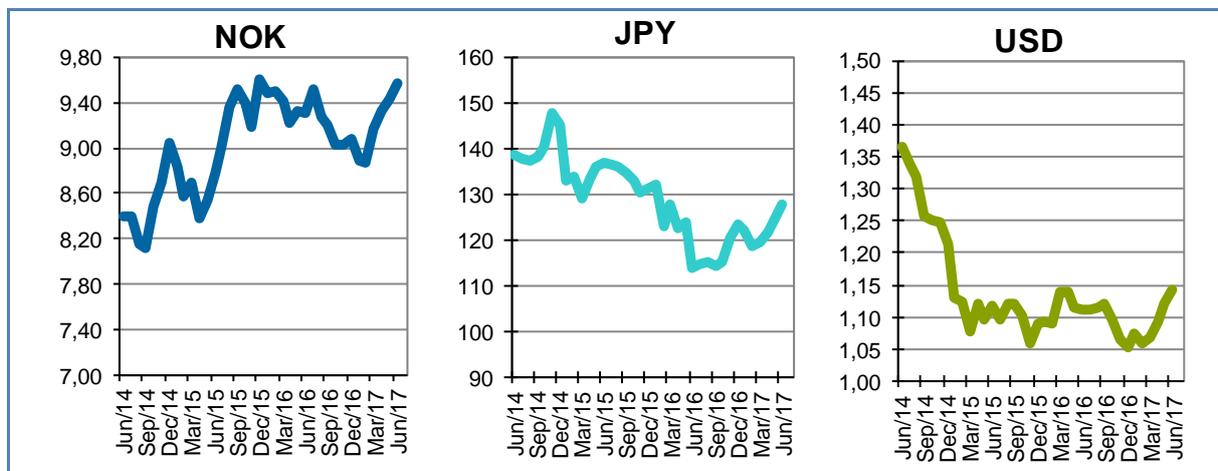
In June 2017, the euro appreciated against the Norwegian krone (+1,4%), the Japanese yen (+2,7%), and the US dollar (+1,7%), compared with May 2017. For the past six months, the euro has fluctuated around 1,09 against the US dollar. Compared with June 2016, the euro has appreciated 2,9% against the Norwegian krone, 12,0% against the Japanese yen, and 2,8% against the US dollar.

Table 15. **THE EURO EXCHANGE RATES AGAINST THREE SELECTED CURRENCIES**

| Currency   | Jun 2015 | Jun 2016 | May 2017 | Jun 2017      |
|------------|----------|----------|----------|---------------|
| <b>NOK</b> | 8,7910   | 9,3008   | 9,4388   | <b>9,5713</b> |
| <b>JPY</b> | 137,01   | 114,05   | 124,40   | <b>127,75</b> |
| <b>USD</b> | 1,1189   | 1,1102   | 1,1221   | <b>1,1412</b> |

Source: European Central Bank.

Figure 21. TREND OF EURO EXCHANGE RATES



Source: European Central Bank.

#### 5.4. EUROPEAN UNION ECONOMIC OVERVIEW

In January–March 2017, seasonally adjusted GDP rate increased 0,6% compared with October–December 2016. In the fourth quarter of 2016, GDP grew 0,6%. Compared with January–March 2016, seasonally adjusted GDP rose 2,1% in the first quarter of 2017, after +2,0% in the previous quarter.

Among the EU Member States, in January–March 2017, the lowest GDP growth was recorded in the United

Kingdom (+0,2%) compared with the previous quarter. It was followed by Greece, France, Italy, the Netherlands and Sweden, where the GDP growth rate increased slightly (+0,4%).

Romania, Latvia and Slovakia registered the highest GDP growth in January–March 2017 (+1,7%, +1,5%, and +1,6%, respectively).

Compared with January–March 2016, the lowest GDP growth rate was registered in Greece (+0,4%), and the highest was in Romania (+5,6%)<sup>42</sup>.

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-17-006-EN-N  
ISSN 2314-9671

Photographs ©Eurofish.

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](mailto:contact-us@eumofa.eu)

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

**First sales:** EUMOFA; Puertos del estado. Data analysed refers to April 2017.

**Global supply:** European Commission; Statistics Iceland; Institute of Marine Research, Norway; GFCM-FAO; Marine Stewardship Council; Italian National Association of fish and canning of tuna; Norwegian Seafood Council.

**Case studies:** EUMOFA; UN Comtrade; FAO; The University of British Columbia; VASEP; Innovation Norway; [www.fis.com](http://www.fis.com); MERCASA; MERCABARNA; MERCAMADRID.

**Consumption:** EUMOFA; EUROPANEL; the European Parliament; FAO Fishstat.

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

The underlying first-sales data is available in a separate Annex 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](http://www.eumofa.eu).

## 6. Endnotes

- <sup>1</sup> 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.
- <sup>2</sup> Data refer to 28 government-owned ports. [http://www.puertos.es/en-us/estadisticas/Pages/estadistica\\_mensual.aspx](http://www.puertos.es/en-us/estadisticas/Pages/estadistica_mensual.aspx)
- <sup>3</sup> [http://www.seafish.org/media/publications/SeafishResponsibleSourcingGuide\\_CrabsLobsters\\_201309.pdf](http://www.seafish.org/media/publications/SeafishResponsibleSourcingGuide_CrabsLobsters_201309.pdf)
- <sup>4</sup> <http://www.imr.no/temasider/skalldyr/taskekrabbe/en>
- <sup>5</sup> <http://www.imr.no/temasider/skalldyr/taskekrabbe/en>
- <sup>6</sup> <http://www.fao.org/fishery/species/2627/en>
- <sup>7</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001R0724&from=EN>
- <sup>8</sup> <http://britishseafishing.co.uk/velvet-swimming-crab-2/>
- <sup>9</sup> <http://www.fao.org/fishery/species/3571/en>
- <sup>10</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0227&from=EN>
- <sup>11</sup> <http://www.guidedesespecies.org/fr/seiche>
- <sup>12</sup> [http://seafish.org/media/Publications/SeafishSpeciesGuide\\_Cuttlefish\\_201401.pdf](http://seafish.org/media/Publications/SeafishSpeciesGuide_Cuttlefish_201401.pdf)
- <sup>13</sup> <http://www.fao.org/fishery/species/2711/en>
- <sup>14</sup> [https://ec.europa.eu/fisheries/nasco-continues-efforts-understand-and-tackle-poor-conservation-status-atlantic-salmon-stocks\\_en](https://ec.europa.eu/fisheries/nasco-continues-efforts-understand-and-tackle-poor-conservation-status-atlantic-salmon-stocks_en)
- <sup>15</sup> <https://www.eu2017.mt/en/news/Pages/Conservation-of-Atlantic-tunas-international-measures-become-EU-law.aspx>
- <sup>16</sup> [http://www.consilium.europa.eu/en/press/press-releases/2017/06/20-transparent-external-fishing-activities/;](http://www.consilium.europa.eu/en/press/press-releases/2017/06/20-transparent-external-fishing-activities/)  
[https://ec.europa.eu/fisheries/statement-karmenu-vella-european-commissioner-maritime-affairs-fisheries-and-environment-after\\_en](https://ec.europa.eu/fisheries/statement-karmenu-vella-european-commissioner-maritime-affairs-fisheries-and-environment-after_en)
- <sup>17</sup> [https://ec.europa.eu/fisheries/smooth-running-2017-bluefin-tuna-season-first-time-all-eu-operators-use-electronic-catch\\_en](https://ec.europa.eu/fisheries/smooth-running-2017-bluefin-tuna-season-first-time-all-eu-operators-use-electronic-catch_en)
- <sup>18</sup> [http://www.imr.no/nyhetsarkiv/2017/juni/tilrar\\_a\\_redusere\\_torskekvoten\\_med\\_en\\_femtedel/en](http://www.imr.no/nyhetsarkiv/2017/juni/tilrar_a_redusere_torskekvoten_med_en_femtedel/en)
- <sup>19</sup> <http://www.fao.org/3/a-i7340e.pdf>
- <sup>20</sup> <http://www.statice.is/publications/news-archive/fisheries/fish-catches-in-may-2017/>
- <sup>21</sup> <https://www.msc.org/newsroom/news/world-first-icelandic-capelin-is-msc-certified?fromsearch=1&isnewssearch=1>
- <sup>22</sup> <https://www.msc.org/newsroom/news/world-first-as-greenland-halibut-fishery-gains-msc-certification?fromsearch=1&isnewssearch=1>
- <sup>23</sup> [http://tonno360.it/wp-content/uploads/2017/06/Ancit\\_cs-dati-economici-2016\\_060617.pdf](http://tonno360.it/wp-content/uploads/2017/06/Ancit_cs-dati-economici-2016_060617.pdf) (in Italian).
- <sup>24</sup> <https://en.seafood.no/news-and-media/news-archive/norwegian-seafood-exports-grow-by-13-in-may/>
- <sup>25</sup> <http://www.fao.org/3/a-i5555e.pdf>
- <sup>26</sup> <https://comtrade.un.org/data>
- <sup>27</sup> <http://ec.europa.eu/trade/policy/countries-and-regions/countries/vietnam/>
- <sup>28</sup> <http://fisheries.ubc.ca/node/4711>
- <sup>29</sup> <http://fisheries.ubc.ca/node/4711>
- <sup>30</sup> <http://www.opportunities-abroad.no/wp-content/uploads/2016/10/Vietnam-Marine-Sector-Innovation-Norway.pdf>
- <sup>31</sup> [http://www.fao.org/fishery/culturedspecies/Pangasius\\_hypophthalmus/en](http://www.fao.org/fishery/culturedspecies/Pangasius_hypophthalmus/en)
- <sup>32</sup> <http://www.fao.org/3/a-i5555e.pdf>
- <sup>33</sup> <http://www.fao.org/3/a-i5555e.pdf>
- <sup>34</sup> <http://ec.europa.eu/trade/policy/countries-and-regions/countries/vietnam/>
- <sup>35</sup> VASEP.
- <sup>36</sup> <http://www.fao.org/in-action/globefish/market-reports/resource-detail/en/c/336908/>
- <sup>37</sup> <http://fis.com/fis/worldnews/worldnews.asp?l=e&id=92197&ndb=1>
- <sup>38</sup> [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2011/460041/IPOL-PECH\\_ET\(2011\)460041\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2011/460041/IPOL-PECH_ET(2011)460041_EN.pdf)
- <sup>39</sup> [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2011/460041/IPOL-PECH\\_ET\(2011\)460041\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2011/460041/IPOL-PECH_ET(2011)460041_EN.pdf)
- <sup>40</sup> FAO Fishstat.
- <sup>41</sup> [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2011/460041/IPOL-PECH\\_ET\(2011\)460041\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2011/460041/IPOL-PECH_ET(2011)460041_EN.pdf)
- <sup>42</sup> <http://ec.europa.eu/eurostat/documents/2995521/8057546/2-08062017-AP-EN.pdf>