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EUMOFA

European Market Observatory for Fisheries and Aquaculture Products

MONTHLY HIGHLIGHTS

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The January-March 2015 first-sales show a general downward trend, compared with January-March 2014. In Portugal, first sales decreased mainly because of sardine, whose landings were reduced dramatically in this period as a consequence of the management measures taken by Portuguese and Spanish authorities. By contrast, octopus, scabbardfish and horse mackerel contributed positively to the increase in the country's first-sales value. In Latvia, the strong decrease of first-sales value was due to herring and sprat. The remarkably increase of volume landings of cod did not offset the substantial decrease of sprat volume (–14%).

Finfish farming in Spain rebounded in 2014 after several years of stagnation. Production reached 43.597 tonnes, 11% more than in 2013. The value of this production reached EUR 264 million (+17%). The main species produced were seabass (EUR 100 million), seabream (EUR 88 million), and turbot (EUR 59 million).

Haddock is one of the main species consumed in the UK. The dramatic drop in haddock availability since 2011 has led to a substantial price increase at first-sales and at retail level. Cod is the main substitute and fully offsets haddock's loss of market share.

In spite of a 25% fall in sole quotas since 2012, retail prices do not follow any upward trend. In Belgium, retail prices of sole are the highest among the five Member States surveyed. In the Netherlands, retail prices of whole fresh plaice vary widely during the year.

Marine fuel in fish harbours in France, Italy and Spain has averaged approximately 55 cents/litre in May 2015. It confirms the increase observed since the beginning of the year.

First sales in Europe 1.

1.1. **JANUARY - MARCH 2015**

In Jan-Mar 2015, ten EU Member States (MS) and Norway reported first-sales data for ten commodity groups.1

First sales increased over the previous year (Jan-Mar 2014) in both value and volume for three of the reporting

In Belgium, the significant decrease of sole first sales (-16% in value and -21% in volume), was offset by increased first sales of other flatfish (megrim and plaice) as well as cephalopods (squid and cuttlefish), monk, ray, and, to a lesser extent, cod. The average first-sales price (3,53 EUR/kg) decreased 5% over Jan-Mar 2014 in spite of the increase of value.

French first sales experienced moderate increase in value, mainly due to the steep increases of cephalopods landings, notably squid and cuttlefish, which recorded however sharp price drops. Volumes of hake, cod and sardine also increased, while scallop, anchovy, mackerel and flatfish experienced significant decreases. The average first-sales price for all landings increased 10% in Jan-Mar 2015 over Jan-Mar 2014.

In Denmark, first-sales value and volume of coldwater shrimp almost doubled over Jan-Mar 2014. However, prices have remained stable, at a relatively high value.

Norway experienced higher first-sales volume, mainly due to increased landings of blue whiting in Jan-Mar 2015, but also slight increase in landings of saithe has contributed. The first-sales value of Norwegian landings increased from Jan-Mar 2014, mostly because of significantly higher prices on important species like cod and haddock.

First sales decreased in value and volume in four EU MS over the previous year (Jan-Mar 2014). In the UK the strong decrease was due to reduced landings of mackerel in the first two months of the year compared with the same period in 2014. The UK quota for mackerel in 2015 is 15% lower than last year. The average first-sales price was 10% higher in Jan-Mar 2015 than in Jan-Mar 2014.

In Sweden, the Jan-Mar 2015 decrease of first sales is due to the decline in fishing quotas over the last few years. Quotas have fallen to reduce fishing pressure and to reach the Maximum Sustainable Yield.

In Portugal, higher volume of mackerel and octopus contributed to the overall increase in landings in Jan-Mar 2015.

Spain landed 48.087 tonnes of fresh fish since the beginning of the year (Jan-Mar 2015), a decrease of approximately 2%, compared with the same period in 2014. In Jan-Mar 2015 landings in the ports of A Coruña, Vigo, Avilés and Pasaia, accounted for 81% of all fresh fish landings.2

Table 1. **OVERVIEW OF THE REPORTING COUNTRIES** (volume in tonnes and value in million euro)

Country	Jan-Mar 2013		Jan-Mar 2014		Jan-Mar 2015		Change from Jan-Mar 2014	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	4.236	15,75	4.680	17,47	5.084	17,98	+9%	+3%
Denmark	51.453	57,04	62.292	50,64	55.961	60,27	-10%	+19%
France	48.202	150,46	48.962	148,42	47.938	160,17	-2%	+8%
Greece*	2.605	8,25	2.457	7,92	2.337	6,95	-5%	-12%
Italy*	1.914	13,81	1.964	11,26	1.999	10,86	+2%	-4%
Latvia	18.561	5,15	21.403	6,34	19.362	4,80	-10%	-24%
Lithuania*	1.088	0,88	368	0,27	549	0,43	+49%	+62%
Norway	927.106	598,15	884.802	563,89	935.412	603,00	+6%	+7%
Portugal	17.376	35,71	16.827	34,75	15.877	36,35	-6%	+5%
Sweden	81.573	40,28	69.088	27,02	57.214	24,13	-17%	-11%
United Kingdom	103.291	132,75	144.631	205,38	107.079	166,81	-26%	-19%

Source: EUMOFA (updated 11.05.2015); volume data is reported in net weight.

Partial data. First sales data for Greece covers the port of Piraeus (35%). First sales data for Italy covers 11 ports (10%). First sales data for Lithuania covers the Klaipeda fish auction.

1.2. MARCH 2015

In March 2015, ten EU Member States (MS) and Norway reported first sales data for ten commodity groups.

First sales increased over the previous year (March 2014) in both value and volume for seven of the EU reporting MS, of which Lithuania experienced the most notable increase.

In March, first sales in Norway increased in both value and volume from March 2014. This was mainly due to increased landings of cod, haddock and saithe. Especially landings of cod have been slow at the beginning of the year, however they have started to catch up with last years' Jan-Mar level. First-sales prices were high in March, following the trend from the first two months of 2015.

First sales in France decreased in volume in March 2015, notably due to lower landings of mackerel, scallop, pollack and seabass. But prices increased for most species and the average price could return to its March 2012 level, after declining for two years.

First sales in the UK decreased in March 2015. This was mainly because of a slower blue whiting fishery from the beginning of the year, causing decreasing landings (-57%). Landings of other important species for the UK like haddock and cod were stable compared to March 2014.

In March 2015, Spain landed 23.173 tonnes of fresh fish, 4% more than a year before.

Table 2. **OVERVIEW OF THE REPORTING COUNTRIES** (volume in tonnes and value in million euro)

Country	March 2013		March 2014		March 2015		Change from March 2014	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	1.309	5,45	1.661	6,34	1.735	6,77	+4%	+7%
Denmark	8.944	12,76	23.226	17,72	16.520	19,48	-29%	+10%
France	16.996	52,47	19.352	53,71	17.762	57,47	-8%	+7%
Greece*	1.057	2,98	937	2,70	1.102	2,73	+18%	+1%
Italy*	582	4,30	648	3,89	697	4,06	+8%	+4%
Latvia	5.534	1,59	7.949	2,01	7.322	1,81	-8%	-10%
Lithuania*	171	0,12	147	0,10	304	0,19	+106%	+87%
Norway	309.404	180,78	380.054	181,06	410.803	257,06	+8%	+42%
Portugal	4.644	10,94	6.084	12,95	6.740	14,74	+11%	+14%
Sweden	13.701	8,10	20.937	8,87	21.718	8,96	+4%	+1%
United Kingdom	21.959	27,87	33.795	45,70	23.914	44,39	-29%	-3%

Source: EUMOFA (updated 11.05.2015); volume data is reported in net weight.

^{*} Partial data. First sales data for Greece covers the port of Piraeus (35%). First sales data for Italy covers 11 ports (10%). First sales data for Lithuania covers the Klaipeda fish auction.

1.3. PORTUGAL

Portugal has an extensive Exclusive Economic Zone, (1,7 million km²), including the Madeira and Azores archipelagos. However, fisheries represent less than 1% of the country's GDP. In 2013 there were 16.797 registered fishermen. While the number of fishermen increased 1% over 2012, the fishing fleet in Portugal decreased 3%, to 4.527 fishing vessels.

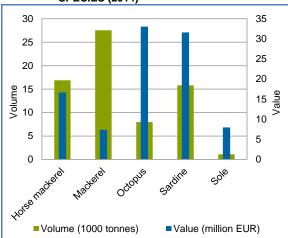
Most vessels operate in ICES division IXa (Portuguese waters - East). Other fishing grounds are in divisions I (Barents Sea), Ila (Norwegian Sea) and Ilb (Spitsbergen and Bear Island). Portuguese vessels fish also in the Eastern Central Atlantic: Cape Verde and Guinea (FAO subareas 34.3 and 34.4).

Fishing is done mainly with purse seine for pelagics and static gear for demersal species. Purse seine represent 47% of the fish volume landed in 2013. Most of the catches (90%) are landed in continental Portugal, 6% in the Azores and 4% in Madeira. Catches have declined gradually, mainly due to the fall of sardine catches. Catches in continental Portugal focus on three species: sardine, mackerel and horse mackerel. Catches in Madeira comprise mostly tuna and scabbardfish, while in the Azores tuna and swordfish prevail.

Portugal benefits from fisheries agreements signed by the EU with a series of countries, including Seychelles, Madagascar, Mauritius and Gabon. The recently renewed agreement with Morocco creates fishing opportunities for the Portuguese fleet in small-scale, demersal and industrial fishery (small pelagics). It concerns mainly licenses for bottom longliners.

The top five species in value landed in 2014 were octopus, sardine, horse mackerel, sole and mackerel. The top three ports in Portugal in 2014 were Sesimbra, with mackerel as the main species landed and sold, Matosinhos (sardine) and Olhão (mackerel), all located in continental Portugal.

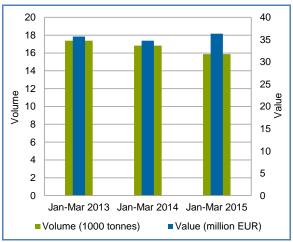
Figure 1. FIRST SALES IN PORTUGAL BY MAIN **SPECIES (2014)**



Source: EUMOFA (updated 11.05.2015).

In Jan-Mar 2015, first-sales value increased +5% while volume decreased -6% from Jan-Mar 2014. Compared with Jan-Mar 2013, the same trend was observed: value increasing +2% while volume decreasing -9%.

JAN-MAR FIRST SALES IN PORTUGAL Figure 2.



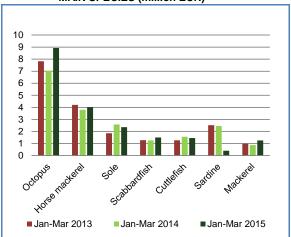
Source: EUMOFA (updated 11.05.2015).

Octopus, horse mackerel, sole, scabbardfish and cuttlefish accounted for 50% of total first-sales value in Jan-Mar 2015. Octopus and scabbardfish experienced the highest increase in first-sales value +27% and +19%, respectively. The increasing trend is observed also in comparison to Jan-Mar 2013 (+14% in value and +17% in volume).

Mackerel, horse mackerel and octopus are the main species landed in volume. First-sales volume of both mackerel and octopus increased over Jan-Mar 2014, +32% and +25%, respectively. However, this did not offset the overall decrease in volume, which was mainly due to sardine (-84%): the further suspension of MSC certification made it necessary for Portuguese sardine fishery to take corrective measures which led to a drastic reduction in landings (sardine landings fell from 2.785 tonnes in Jan-Mar 2014 to 449 tonnes in Jan-Mar 2015).

The average price of all fish landed increased 10% over Jan-Mar 2014. The average price of mackerel and horse mackerel rose 10% and 11%, respectively over Jan-Mar 2014. It remained stable for sardine, octopus and scabbardfish.

JAN-MAR FIRST SALES IN PORTUGAL BY Figure 3. **MAIN SPECIES (million EUR)**



Source: EUMOFA (updated 11.05.2015).

1.3.1. SARDINE



Sardine can be found from the North Sea to the south on the Moroccan shelf, with high concentrations around the Iberian region. Sardine

is one of the most abundant small pelagic species in western Iberian waters and is a prey for many predatory fish, marine mammals and birds.

Due to the decline of biomass stock combined with high pressure on the sardine fishery, management measures were taken by both Spanish and Portuguese authorities. A sardine management plan (2012-2015) was enforced by the Portuguese authorities, with the goal of recovering the sardine stock.3 The plan establishes strict harvest rules, roles of stakeholders involved, the objectives to be pursued, and, the steps and timings to be taken within the scope of the recovery plan. Annual catch limits are set for sardine fishery and fishing for sardine is banned for 45 days in the first quarter of each year.4

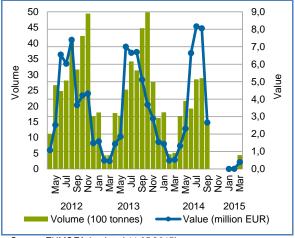
At the end of September 2014, the sardine fishery was completely closed by the Spanish and Portuguese ministries in charge of fisheries due to the completion of the planned quotas in the areas VIIIc (Bay of Biscay - South) and IXa (Portuguese Waters - East).

Sardine is fished mostly by purse-seiners. Catches are concentrated on the western part of Portugal and are highest during the second part of the year (with peaks in June-August).5

In Jan-Mar 2015, the accumulated first sales of sardine were EUR 0,40 million and 449 tonnes down from 2.785 tonnes in 2014. This was 84% decrease in both value and volume from Jan-Mar last year. Compared with Jan-Mar 2013, first-sales, value and volume decreased 84% and 83%, respectively.

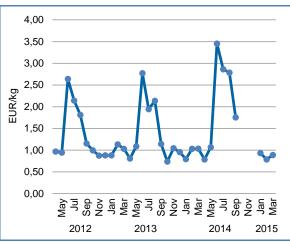
Sardine is landed exclusively on continental Portugal; the leading port is Matosinhos, followed by Sines, Olhão, and Portimão.

Figure 4. SARDINE: FIRST SALES IN PORTUGAL



Source: EUMOFA (updated 11.05.2015).

Figure 5. **SARDINE: FIRST-SALES PRICE IN PORTUGAL**



Source: EUMOFA (updated 11.05.2015).

The average unit price of sardine in Jan-Mar 2015 was 0,88 EUR/kg. This was a slight increase compared with Jan-Mar 2014 (+1%). The average price decreased 7% over Jan-Mar 2013.

1.3.2. HAKE



Hake is found globally and refers to several different species which the most familiar are North Pacific,

Argentine, Cape hake, Chilean and European hake.6 The European hake is divided into the northern stock (North Sea, Skagerrak and off the Atlantic coast of the UK, Ireland and France), and the southern stock (off the Atlantic coast of Spain and Portugal). Both stocks are commonly caught in mixed fisheries together with cod, haddock and whiting, mainly by bottom trawl but pelagic trawl, line and gillnet are also used.7

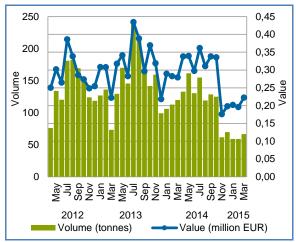
Hake spawns for a long period of time, which varies with the depth and the stock: e.g. December-June in the Mediterranean and February-May in the Bay of Biscay. In the Mediterranean, spawning occurs in depths between 100 and 300 m, and above 150 m in the Celtic Sea.8

Hake fishing takes place year-round, and peaks are registered from July-October. Hake is fished in the Bay of Biscay and the Atlantic Iberian waters, and it is subject to quotas. For 2015, the Portuguese hake quota is 4.129 tonnes. This is 4% of the total EU TAC and constitutes a 15% decrease from 2014.

The accumulated first sales of hake in Jan-Mar 2015 were EUR 0,62 million and 185 tonnes. This was a 27% decrease in value and a 45% decrease in volume from Jan-Mar 2014. Compared with Jan-Mar 2013, first-sales value and volume registered the same decreasing trend (-26% and -45%).

Hake is landed mainly on continental Portugal; six ports account for approximately 76% of all hake first-sales value in Portugal, Sesimbra and Nazaré being the first

Figure 6. HAKE: FIRST SALES IN PORTUGAL



Source: EUMOFA (updated 11.05.2015).

HAKE: FIRST-SALES PRICE IN PORTUGAL Figure 7.



Source: EUMOFA (updated 11.05.2015).

The average unit price of hake in Jan-Mar 2015 was 3,35 EUR/kg, a 33% and 35% increase from Jan-Mar 2014 and Jan-Mar 2013, respectively.

1.4. **LATVIA**

Latvia is situated on the east coast of the Baltic Sea and it is bound by the Gulf of Riga to the north. Fishing activities take place in the Baltic Sea and the Gulf of Riga and are divided into offshore and coastal fisheries. Although both are targeting similar species, they use different types of vessels, gears and fishing methods.

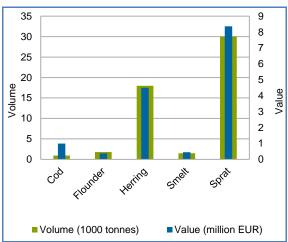
There are about 70 fishing vessels (from 12 to 40m length) involved in offshore fisheries. The majority of the fleet is composed of small-scale coastal fishing vessels (about 600). Main species caught are sprat, herring, cod, and flounder. In addition, Latvia has a high seas fleet (7 vessels) that operates mostly in Mauritania and Morocco waters, and to a lesser extent in the North Atlantic. Main species caught are horse mackerel, mackerel, sardinella and redfish. 9

Ventspils, Liepaja and Roja are the major landing ports accounting for 90% of the volume of landings. In 2014, the most important species landed in Latvia (in volume) were sprat and herring. Other species were cod, flounder and smelt. Fish landed and sold is mainly used for human consumption.

The locally-caught fish species, especially herring and sprat, constitute the main raw material for the processing sector. This is due to a well-developed and export-oriented fish processing industry, as well as the relatively modest fish consumption within the country.

Currently cod is the only fish species in the Baltic Sea for which a multi-annual management plan exists. It is due to be replaced by a long-term management plan which takes into account inter-species relations and establishes targets and conservation reference ranges for cod, sprat and herring.

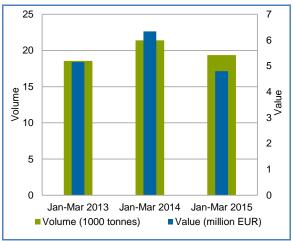
FIRST SALES IN LATVIA BY MAIN SPECIES Figure 8. (2014)



Source: EUMOFA. Volume in net weight.

In Jan-Mar 2015, first sales decreased both in value (-24%) and volume (-10%) compared with the same period in the previous year (Jan-Mar 2014). The average price of all landings decreased 16% and 11% over Jan-Mar 2014 and Jan-Mar 2013, respectively, reaching 0,25 EUR/kg.

Figure 9. JAN-MAR FIRST SALES IN LATVIA

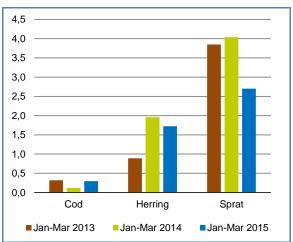


Source: EUMOFA (updated 11.05.2015).

Cod, herring and sprat account for 98% of first-sales value and volume. In Jan-Mar 2015, herring and sprat experienced lower first-sales value (-12% and -33%), respectively. By contrast, cod first-sales value increased 156% over Jan-Mar 2014.

First-sales volume of cod tripled, it remained stable for herring, and decreased for sprat (-14%), compared with Jan-Mar 2014. The average unit prices of cod, herring and sprat decreased.

Figure 10. JAN-MAR FIRST SALES IN LATVIA BY **MAIN SPECIES (million EUR)**



Source: EUMOFA (updated 11.05.2015).

HERRING



Most pelagic catches in the Baltic Sea are a mixture of herring and sprat. There several stocks of herring in the Baltic

Sea, of which the central Baltic herring is the most abundant. Discarding in the herring fishery is not allowed.

The characteristics of the Gulf of Riga (low salinity and semi-closed ecosystem), limits the occurrence of other marine species such as cod, for which herring is a prey. Fishing, which is done here by Estonia and Latvia, is therefore only herring targeted. Both trawls and trap nets are used.

Herring catches are seasonal and subject to total allowable catches (TACs). The main season starts in autumn and peaks between January and March.

Latvia's herring quota (25.404 tonnes in 2015) has increased 29% over previous year and is the highest registered since 2010. Latvia's quota represents 11% of total EU TACs for herring in the Baltic Sea in 2015.

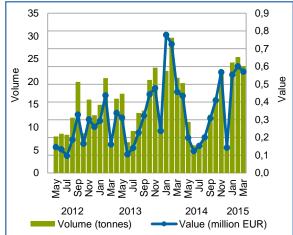
Herring is a commercially important species because it is used by the processing industry as raw material. On the market, herring is sold mainly whole and fresh, as well as frozen, prepared and preserved.

In March 2015, the accumulated first sales of herring were worth EUR 1,72 million (-12%) for 7.300 tonnes compared with the first quarter of 2014. However, compared with Jan-Mar 2013, first-sales value almost doubled (+94%).

First sales volume remained stable over Jan-Mar 2014. but increased +76% over Jan-Mar 2013. Price fell -12%, over Jan-Mar 2014, but increased +10% over Jan-Mar 2013.

Most herring is landed in 2 ports (Ventspils and Roja), accounting for approximately 65% of all herring landed and sold in Latvia.

Figure 11. HERRING: FIRST SALES IN LATVIA



Source: EUMOFA (updated 11.05.2015).

Figure 12. HERRING: FIRST-SALES PRICE IN LATVIA



Source: EUMOFA (updated 11.05.2015).

In Jan-Mar 2015, the average unit price of herring was 0,24 EUR/kg, 12% lower than the Jan-Mar 2014 average price. It was 10% higher compared with Jan-Mar 2013.

SPRAT 1.4.2.



The European sprat, also known as brisling, is a short-lived, salttolerant fish that is found in brackish

waters like the Baltic Sea. Sprat is a prey for many predators, such as cod, as well as for seabirds and marine mammals. The sprat stock is dependent on the abundance of the cod stock. Discarding in the sprat fishery is not allowed.

Sprat spawns in spring and summer, in the open part of the Baltic Sea. Catches of sprat are seasonal and subject to quotas. Fishing peaks are registered from February to April.

Latvia's quota of sprat (29.548 tonnes in 2015) has decreased continuously since 2013 (-15%) and it is the lowest registered since 2010. Latvia's quota represents 14% of total Baltic Sea TACs for sprat in 2015 (213.581 tonnes). Quotas are fully utilised.

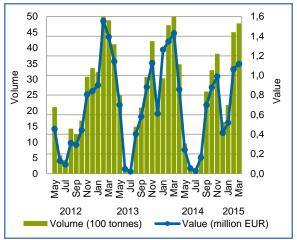
Sprat accounts for the majority of raw materials used by the processing sector. Frozen and canned sprat are the main products which are exported to the neighbouring countries (Estonia, Lithuania), as well as to the Russian Federation and other CIS countries.

In March 2015, the accumulated first sales of sprat were worth EUR 2,70 million (-33%) for 11.500 tonnes (-14%) compared with the first quarter of 2014. The average unit price fell 22%, over Jan-Mar 2014.

Sprat prices were lower in the first quarter of 2015 than in the same period last year. The decline can be attributed partly to the import ban imposed by Russia, one of the main markets for block-frozen sprats. In addition, fluctuations in the rate for the US dollar in most CIS countries, and an increase in February and March in the proportion of small-sized fish, which are only used for the production of fishmeal and fish oil, added to pressure on prices.

Most of the sprat is landed in 2 ports (Liepaja and Ventspils), accounting for approximately 60% of all sprat landed and sold in Latvia.

Figure 13. SPRAT: FIRST SALES IN LATVIA



Source: EUMOFA (updated 11.05.2015).

In Jan-Mar 2015, the average unit price of sprat was 0,24 EUR/kg, 22% and 18% lower than Jan-Mar 2014 and Jan-Mar 2013, respectively.

Figure 14. SPRAT: FIRST-SALES PRICE IN LATVIA



Source: EUMOFA (updated 11.05.2015).

Global Supply 2.

Resources / EU / Seabass: The European Commission has made a proposal to the Council of Ministers aimed at halting the decline of seabass in the Celtic Sea, Irish Sea, English Channel, and North Sea. The proposal would also extend a ban, which currently applies to Irish fishing vessels, to all Member State vessels in waters adjacent to Ireland. The proposal envisages a maximum catch per month by gear type, limiting the targeting of the vulnerable stock but allowing for incidental catches.10

Resources / Indian Ocean: A resolution presented jointly by the EU, Maldives, and Australia has been adopted by the Indian Ocean Tuna Commission (IOTC), representing a major step towards modern ecosystembased management in the Indian Ocean. It includes improved reporting requirements, a reinsertion of the expired IOTC capacity management framework, and a conservation measure on billfish with clear indications of depletion or overfishing (striped marlin, black marlin, and blue marlin). A working group was set up to assess the impact of Fishing Aggregating Devices (FADs) used in large-scale fishing.1

EU / Common Fisheries Policy: The European Parliament approved the rules for the landing obligation. It concerns the Omnibus Regulation that clarifies the technical and control rules that apply in relation to the landing obligation, which is coming into force gradually between 2015 and 2019.12

Fisheries / Baltic Sea: The European Parliament approved the first multi-annual fishery management plan developed as part of the new Common Fisheries Policy. The plan establishes targets and conservation reference points for cod, sprat, and herring stocks in the Baltic Sea, making fishing in the Baltic Sea more sustainable.13

Fisheries / Iceland: Icelandic vessels took 75.000 tonnes of fish in April 2015, a decrease of 28.000 tonnes compared with April 2014. The decrease was caused by reduced catches of blue whiting and cod. The blue whiting catch decreased nearly 40%, and cod catch decreased more than 20% compared with April 2014.14

Fisheries / Scotland: In 2014, the value of fish landings reached a record high of GBP 513 million (EUR 659 million), a 19% increase over 2013. The volume of landings also increased 31%, to 480.400 tonnes. Mackerel continues to be the most valuable species, accounting for GBP 195 million (EUR 250 million) of Scottish landings. 15

Aquaculture / Scotland: In 2014, the first-sales value of the shellfish industry increased 18%, reaching GBP 10,5 million (EUR 13,5 million). In all, 7.683 tonnes of mussel were produced, the highest production on record. The production of oyster increased 9% over 2013.16

Aquaculture / Spain: The more efficient use of production sites, mainly for turbot and sea bass, contributed to a significant increase in Spanish production of marine species in 2014 after several years of stagnation. Production of seabream, the other main marine finfish species, declined. In terms of value, seabass, seabream, and turbot accounted for just under EUR 250 million or 95% of the value of marine aquaculture (excluding mussels). Marine aquaculture production is spread over coastal autonomous communities next to both the Mediterranean (Catalonia, Valencia, Murcia, Andalucia) and the Atlantic Ocean (Galicia, Canary Islands).17

Certification / Fisheries: A Greenlandic Marine Stewardship Council certification for Greenland cod, haddock, and saithe. At least 80% of Greenland's 12.000-tonne annual cod, haddock, and saithe catch from the Barents Sea is sold in the UK, almost all of it as fillets. 18 An Italian company fishing in the Mediterranean Sea has been certified sustainable by Friend of the Sea (FOS) for European hake, red mullet, musky octopus, mantis shrimp, and deep-water rose shrimp. 19

Certification / Aquaculture: An aquaculture company in Croatia specialising in white fish farming and the processing of seabass, seabream, and shellfish has been authorised to use the Friend of the Sea (FOS) logo in combination with the GlobalG.A.P. number. The two organisations have entered into an agreement, whereby they offer a joint certification scheme aimed at reducing duplication, and driving down audit costs for farms.²⁰

Trade / Norway: Norway seafood exports were worth NOK 5,4 billion (EUR 644 million) in April 2015, a 7% decrease compared with April 2014. Salmon exports totalled NOK 3,5 billion (EUR 417 million) in April. This was mainly the result of decreasing exports to Russia, a former key market for Norwegian exports. The price for fresh whole salmon fell from NOK 45,30 (EUR 5,50) to NOK 39,93 (EUR 5,40) per kilo. Volume remained at the same level as in April 2014, at approximately 82.000 tonnes for all types of salmon. Poland, France, and the UK are the largest export markets for Norwegian salmon.21

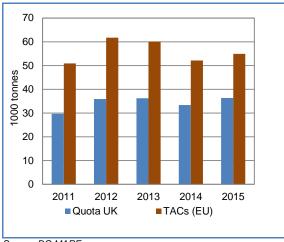
Case study: Haddock in the UK 3.

The Total Allowable Catches (TACs) for haddock in the Barents Sea have decreased over the past five years, from 400.000 tonnes in 2011 to 178.500 tonnes in 2015, affecting even large players like Norway, Russia and Iceland.

For the UK, where the haddock fleet is mainly operating in the North Sea and the Norwegian Sea with quota swapping between EU and Norway, quota has been stable at 30.000 - 36.000 tonnes since 2011. Haddock is traditionally an important species for the UK consumer market, including the fish and chip sector. The country's dependence on imports is high, but has seen a decreasing trend in the recent years (from 86% in 2011 to 70% in 2014). This is mainly due to the reduced global supply of haddock, which has forced the UK to look for substitutes.

One of the main substitutes for haddock on the UK market is cod. The TACs for Atlantic cod in the Barents Sea have increased strongly in recent years. Cod is a natural predator on haddock, which is the main reason for reduced availability and TAC for haddock.

Figure 15. TACS FOR HADDOCK (EU WATERS) AND THE UK QUOTA (MAINLY THE NORTH SEA AND NORWEGIAN SEA)

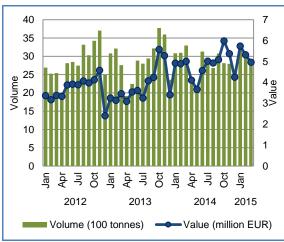


Source: DG MARE.

3.1. First sales

A great variety of species are landed in the UK, but haddock is one of the most important, especially for Scottish fishermen. In 2014, the volume of landed haddock was the third greatest behind mackerel and herring, and constituted 21% of total landings, at 33.650 tonnes. Even though the UK quota has been relatively stable in recent years, the volume of landed haddock has surpassed the landings of other commercially important species, such as scallop, crab, and Norway lobster.

Figure 16. FIRST SALES OF FRESH HADDOCK IN THE



Source: EUMOFA.

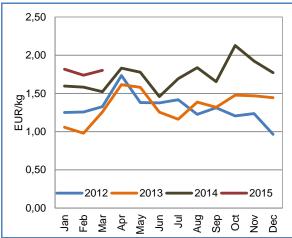
Although the UK landings of haddock decreased slightly from 2013 to 2014 (-3%), the first-sales value increased 25% as a result of better price and greater demand in the market. This was mainly caused by decreasing imports from other countries.22

The top five landing ports for all species in the UK in 2014 were Peterhead (Scotland), Lerwick (Shetland), Fraserburgh (Scotland), Scrabster (Scotland), and Brixham (England).²³ Approximately 60% of the landed volume in these ports was by Scottish vessels, and English vessels accounted for approximately 30% of the landings.24

Most of the UK fish-processing industry takes place in the Humberside region in northeast England and the Grampian region in Scotland, where Peterhead is located.

First-sales prices for haddock in the UK have seen an increasing trend in the recent years, from 1,29 EUR/kg in 2012 to 1,72 EUR/kg in 2014. In the first quarter of 2015, the first sales price averaged 1,79 EUR/kg, up 14% from the same quarter in 2014.

Figure 17. FRESH HADDOCK FIRST-SALES PRICE (EUR/kg)



Source: EUMOFA.

3.2. **Trade**

Because haddock is one of the most important species for the UK consumer market, almost all national and foreign landings in the UK end up on the domestic market. The UK exported 3.000 tonnes (product weight) of haddock in 2011, but only 750 tonnes in 2014. The share of haddock in UK's imports decreased from 7% in 2012 to 4% in 2014, at 33.420 tonnes.

Table 3. UK TOP IMPORTED MAIN COMMERCIAL SPECIES AND IMPORT SHARE (ImpS)

	(1000 tolliles)								
MCS	2012		20	13	20	2014			
	Vol.	ImpS	Vol.	ImpS	Vol.	ImpS			
Misc. tunas	111	12%	119	13%	110	13%			
Cod	99	11%	114	12%	110	13%			
Salmon	74	8%	68	7%	71	8%			
Misc. shrimp	55	6%	61	7%	48	6%			
Haddock	59	7%	44	5%	33	4%			
Other	500	56%	525	56%	468	56%			
Total	898	100%	932	100%	841	100%			

Source: EUMOFA.

Imports come mainly from the two largest suppliers: Norway and Iceland. With the sweeping reduction in haddock TACs in 2013, the supply of haddock was significantly reduced. This is reflected in imports to the UK, where haddock products decreased 26% between 2012 and 2013. This was caused mainly by a 27% decrease in frozen fillets (Norway and Iceland) and a 54% decrease in frozen whole haddock (Norway).

The same trend continued between 2013 and 2014, as total haddock imports decreased 24%. Frozen fillets decreased 32% in this period, while frozen whole haddock stayed at a level similar to the previous year. The fresh whole product group was the most stable of the three product groups, but a shift in volume from Iceland to the US caused a slight decrease in 2014.

Table 4. **UK IMPORTS OF HADDOCK BY** PRESERVATION AND PRESENTATION STATE (tonnes)

		2011	2012	2013	2014
Frozen	Fillets	31.224	30.151	21.928	14.905
	Whole	11.383	14.238	6.501	6.143
Fresh	Whole	15.356	14.932	15.718	12.372
Total		57.963	59.321	44.147	33.420

Source: EUMOFA.

With the availability of haddock and cod trending in opposite directions on the global market, the UK has been substituting haddock with cod for several years. Between 2012 and 2013, the import of cod products to the UK increased 16%, with all product groups increasing, especially frozen fillets, which increased by almost the same number of tonnes that frozen haddock fillets decreased in the same period.

Between 2013 and 2014, imports of cod products to the UK decreased slightly (-3%), mainly the result of a decrease in frozen fillets. In the same period, frozen whole products reached a similar volume level to that of haddock two years earlier, at approximately 14.000 tonnes.

UK IMPORTS OF COD BY PRESERVATION Table 5. AND PRESENTATION STATE (tonnes)

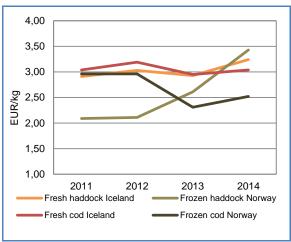
AND I RESERVATION STATE (tollies)						
		2011	2012	2013	2014	
Frozen	Fillets	73.734	73.237	81.476	71.561	
	Whole	6.826	5.024	6.721	13.812	
Fresh	Fillets	7.697	8.731	11.134	11.275	
	Whole	8.255	6.783	10.371	9.216	
Prepared- preserved	I	5.160	4.642	4.278	3.998	
Others	I Total	347	256	207	165	
Total		102.019	98.673	114.187	110.027	

Source: EUMOFA.

UK import prices of whole haddock products from Iceland have been slightly increasing, on reduced volumes. Some of the volumes have been shifted to the US market, where the appreciation of line-caught haddock is greater than in the UK, and higher prices have been achieved. The price of frozen fillets fell in 2013 as higher volumes were imported, but in 2014 the price increased to a level higher than in 2012 with volume decreasing.

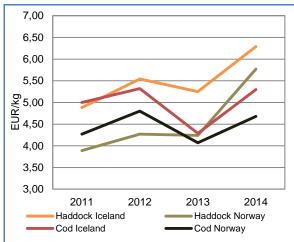
Import prices from Norway have shifted more significantly, indicating a different availability of volume in the market, especially for frozen whole products of haddock and cod.

Figure 18. UK IMPORT PRICES FOR WHOLE **PRODUCTS**



Source: EUMOFA.

Figure 19. UK IMPORT PRICES FOR FROZEN FILLETS

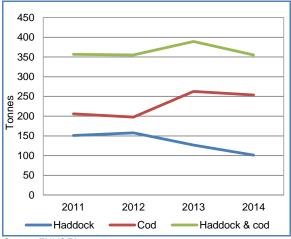


Source: EUMOFA.

3.3. Consumption

The apparent consumption for the UK shows a strong decrease for haddock after 2012 and the opposite trend for cod, making the total volume of the two species stable in the recent years, at 350.000 tonnes.

Figure 20. **UK APPARENT CONSUMPTION OF HADDOCK AND COD (TONNES)**



Source: EUMOFA.

HOUSEHOLD PURCHASES 3.3.1.

Household purchases of fish and fish products in the UK fell 3,4% between 2010 and 2013 in terms of volume. Purchases of fresh and frozen whitefish fell even more, by 6,3%. However, household purchase value of fish and fish products rose 10,6% as prices in the period trended up by 18%.²⁵ Purchases of ready meals have shown increasing signs in recent years and were up 4,5% over 2010.

3.3.2. **RETAIL**

Retail sales of seafood in the UK totalled 340.500 tonnes a year, at a value of GBP 3,17 billion (EUR 3,91 billion).26

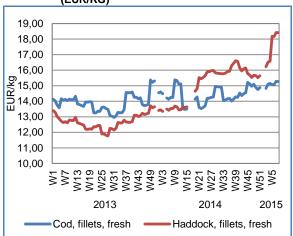
Haddock ranks as the fourth most purchased fish species in volume, behind salmon, tuna, and cod (in descending order). Haddock retail sales volume amounted to 19.026 tonnes and GBP 193 million (EUR 238 million), a decline of 21,5% compared with the corresponding period one year earlier.

Table 6.	e 6. TOP 10 SEAFOOD SPECIES IN THE UK							
Species	Value (1000	Volume (tonnes)	Share of total	Change %				
	GBP)		(volume)	Val.	Vol.			
Salmon	837.115	51.097	15%	8,6	1,7			
Tuna	362.241	53.914	16%	-1,8	-3,7			
Cod	342.573	41.069	12%	6,0	3,3			
Haddock	193.043	19.026	6%	-14,5	-21,5			
Warm- water prawns	192.303	11.772	3%	-12,2	-26,8			
Cold-water prawns	176.202	15.227	4%	10,2	5,2			
Pollock	126.874	25.563	8%	-4,7	-9,2			
Mackerel	116.137	14.781	4%	-0,5	-0,2			
Scampi (Norway lobster)	46.125	4.457	1%	-4,7	-8,0			
Sea bass	38.394	2.674	1%	9,9	7,5			
Total top 10	2.431.007	239.580	70%	1,3	-4,6			
Total all species	3.166.125	340.541	100%	1,3	-4,0			

Source: Seafish/Nielsen (August 2013-August 2014).

Reduced availability of haddock has also affected retail prices in the UK. Since the second half of 2013, prices for fresh haddock fillets have revealed an upward trend.

Figure 21. UK RETAIL PRICES FOR FRESH FILLETS (EUR/KG)



Source: EUMOFA.

3.3.3. **FISH AND CHIPS**

On the UK market, haddock and cod are substitutes in several seafood sectors, including the food service sector. From August 2013 to September 2014, an estimated GBP 1,1 billion (EUR 1,36 billion) was spent in fish and chip shops (up 0,5% from 2013). While cod is by far the most popular species for eating out, with a 27% share of servings, haddock is number two with a 13% share.

In the UK fish and chip sector, which consists of approximately 10.500 takeaway shops (collectively serving 380 million meals per annum and employing 80.000 people), cod and haddock are also the most popular species. Haddock is the usual fish of choice in Scotland, Yorkshire, other parts of northern England and many parts of the Midlands; cod is the fish of choice in the rest of the UK.

4. Consumption

SOLE

Sole is one of the most valuable species in the EU, highly appreciated for its mild flavour and ease of cooking. It is a flatfish that is taken in capture fisheries. Sole is also produced in aquaculture, albeit in small quantities. It is usually available year-round, but typically it is found during the coldest months of the year. In the EU, it is consumed mostly in Spain, Italy, the Netherlands, France, Belgium, and, to a lesser extent, in Germany and the UK. Common sole is usually sold fresh and whole.

Retail prices of fresh sole in the Member States surveyed fluctuated significantly during the period January 2012-April 2015. In spite of a continuous fall in quotas (EU TACs for sole fell from 30.326 tonnes in 2012 to 22.723 tonnes in 2015), retail prices do not follow any upward trend. Belgium maintained the highest prices, while the Netherlands and the UK experienced much lower prices with increased variability. In Italy and France, prices were somewhere in the middle, and Italy experienced the least variability among MS surveyed.

In Belgium, retail prices of whole fresh sole experienced a decreasing trend (January 2012-April 2014) and price hikes at the beginning of the years 2012 through 2014. The price of sole in Belgium was highest among the MS surveyed, at an average price of 26,89 EUR/kg between January and April 2014, compared with 31,28 and 29,66 EUR/kg in the same period during 2012 and 2013, respectively.

In Italy, the retail price of whole fresh sole remained steady relative to other MS surveyed, with an average price of 22,59 EUR/kg since January 2013. Although there is less variability from month to month than in other MS surveyed, prices have experienced a slight decreasing trend since 2013, with average prices falling 2,7% from 2013 to 2014. In August 2014, prices experienced a two-year high of 24,17 EUR/kg, and have since reverted to normal prices.

In France, the price of whole fresh sole remained fairly stable over the survey period but experienced seasonal variability each year. In summer and winter, prices generally tend to rise and fall in autumn and spring, largely as a result of cyclical available supply. There is usually a price decrease in February-March because of oversupply of the market, as many vessels are rushing to this valuable species as soon as the yearly quota is opened. The average price between January 2012 and April 2014 was 20,90 EUR/kg.

In the Netherlands, the price of fresh whole sole experienced high variability. Prices fluctuated between 12,79 and 20,76 EUR/kg, with the highest recorded price in January 2015. The average price in 2014 was 17,06 EUR/kg, an increase of 5,7% over 2013 and a decrease of 7,9% compared with 2012.

In the UK, the retail price of whole fresh sole was the lowest among surveyed MS at an average price of 16,89 EUR/kg over the three-year period. During some periods, prices were higher than those in the Netherlands, but generally remained lower, following a similar trend in variability. The average retail price during 2014 was 16,71 EUR/kg compared with 17,05 (-2%) and 16,83 (-0,7%) EUR/kg in 2013 and 2012, respectively.

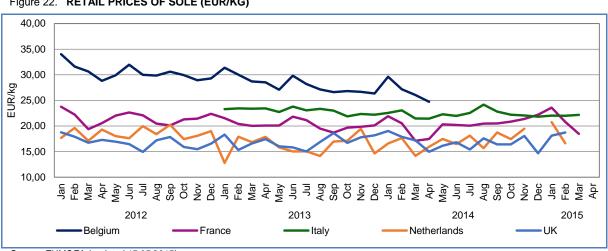


Figure 22. RETAIL PRICES OF SOLE (EUR/KG)

Source: EUMOFA (updated 15.05.2015).

PLAICE

The European plaice (Pleuronectes platessa) is the most commercially important species of plaice in Europe. It is generally caught between March and September and is typically available on the market from spring to early autumn. It is highly valued and widely consumed, particularly in the northern European countries. Plaice is a versatile fish, which can be prepared in a variety of dishes (grilled, baked or shallow fried). Once cooked, it has a tender white flesh with delicate flavour.27 Plaice is the most consumed flatfish in the UK, and is typically not produced in aquaculture, because of poor returns on investment.²⁸

Over the past 3 years, retail prices of plaice have fluctuated considerably in the three MS surveyed. In the UK, prices refer to fresh fillets, and they remained the least variable from month to month. They have however, experienced a slight increasing trend since mid-2013. In Sweden, prices also refer to fresh fillets and remained higher than in other MS surveyed, experiencing some significant price hikes. In the Netherlands prices refer to whole plaice and they remained lower; however, they experienced the largest amount of variability from month to month over the survey period.

In the UK, retail prices of fresh fillets of plaice experienced a decreasing trend between January 2012 and July 2013, and then an increasing trend from August 2013 to February 2015. In 2014, the average

price was 14,24 EUR/kg, an increase of 5% over 2013 and a decrease of 3% from the average price in 2012. Since September 2014, prices have risen rapidly, and in February 2015 the price soared to a three-year high of 17,51 EUR/kg, 22% higher than the average price during the entire period.

In Sweden, the retail price of fresh fillets of plaice varied substantially between January 2012 and March 2015. Prices fluctuated between 11,02 and 17,84 EUR/kg, registering a mean price of 13,34 EUR/kg. Between January and March 2015, the average price was 12,70 EUR/kg, an increase of 4% over the average price during the same period in 2014, and a decrease of 4% and 6% from 2013 and 2012, respectively.

In the Netherlands, prices of whole fresh plaice have varied widely from month to month. This can likely be attributed to seasonal price fluctuations, with increases in autumn, peaking around December or January, and falling again in spring. Although this doesn't follow an exact pattern, it seems to be the general trend. More recently, the price has remained closer to those of other surveyed MS; in 2014 the average price was 10,99 EUR/kg, a marked increase of 6% and 7% over 2013 and 2012, respectively. In November 2014, a three-year high of 15,11 EUR/kg was registered, surpassing the price of plaice in the other two MS surveyed that month. In general, prices for whole plaice are very close to fillet prices in other MS.

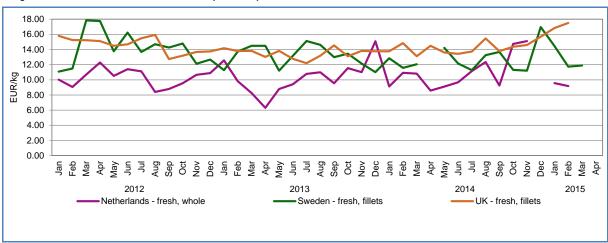


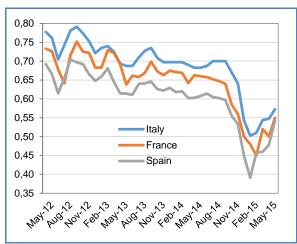
Figure 23. RETAIL PRICES OF PLAICE (EUR/KG)

Source: EUMOFA (updated 15.05.2015).

5. Macroeconomic context

5.1. MARINE FUEL

Figure 24. AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE AND SPAIN (EUR/LITRE)



Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; ARVI, Spain.

In May 2015, the fuel price in the French ports of Lorient, Concarneau - Le Guilvinec and Boulogne was 0,55 EUR/litre, 10% more than in April 2015 and 17% less than in May 2014.

Along Italy's Adriatic coast, the average price of marine diesel fuel in May 2015 for small boats was 0,57 EUR/litre. This was 5% higher compared with the previous month and 16% less than a year ago (May . 2014).²⁹

The price of marine fuel in the port of Vigo (Spain) reached 0,54 EUR/litre in May 2015. It was 14% higher than the previous month and 11% lower compared with May 2014.

5.2. FOOD AND FISH PRICES

Annual EU inflation was 0% in April 2015, up from -0,1% in March. In April 2015, negative annual rates were observed in Greece (-1,8%), Cyprus (-1,7%), Bulgaria and Poland (both -0,9%), while highest annual rates were recorded in Malta (+1,4%) and Austria (+0,9%). Compared with March 2015, annual inflation fell in 9 Member States, remained stable in one, and rose in 17.

Prices of food and non-alcoholic beverages and prices of fish and seafood remained stable compared with the previous month (March 2015).

Between May 2014 and April 2015, both food and fish prices increased 0,2% and 1,7%, respectively.

HARMONISED INDEX OF CONSUMER Table 7. **PRICES IN THE EU (2005 = 100)**

HICP	Apr 2013	Apr 2014	Mar 2015	Apr 2015 ³⁰
Food and non- alcoholic beverages	125,94	126,04	125,85	126,25
Fish and seafood	123,81	125,03	127,08	127,16

Source: EUROSTAT.

5.3. EXCHANGE RATES

In May 2015, the euro appreciated both against the Norwegian krone (+1,8%) and the Japanese yen (+2,0%). After a short recovery the previous month, depreciation against the USD (-2,2%) is observed.

Table 8. THE EURO EXCHANGE RATES AGAINST THREE SELECTED CURRENCIES

Currency	May 2013	May 2014	Apr 2015	May 2015
USD	1,3006	1,3607	1,1215	1,0970
JPY	130,47	138,36	133,26	135,95
NOK	7,6140	8,1425	8,3845	8,5360

Source: European Central Bank.

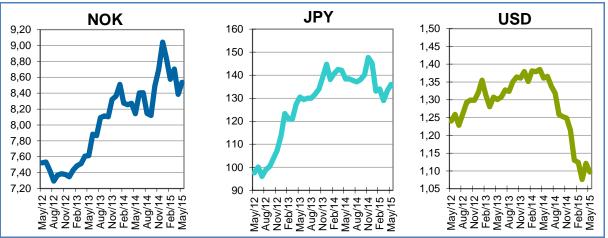


Figure 25. TREND OF EURO EXCHANGE RATES

Source: European Central Bank.

5.4. EUROPEAN UNION ECONOMIC **OVERVIEW**

In Jan-Mar 2015, the EU GDP grew at a rate of 0,4%, after 0,3% in Oct-Dec 2014. The annual GDP rate also improved slightly, reaching 1,4% compared with 1,3% growth in Oct-Dec 2014.

France had the highest growth in Jan-Mar 2015 (+0,6%), after no growth in Oct-Dec 2014. Romania and Cyprus had the highest quarterly GDP growth rates in Jan-Mar 2015 (both +1,6%). By contrast, Lithuania recorded the highest contraction (-0,6%). Sweden and Estonia demonstrated an acceleration, +1,1% and +1,2%, respectively). The UK and German economies slowed downed from Oct-Dec 2014, at rates of +0,3% both.31

5.5. DEVELOPMENTS IN SELECTED **ECONOMIES**

In the USA, the economic activity continued to slow down in Jan-Mar 2015 with a GDP rate of 0,1%, after 0,5% in Oct-Dec 2014, and 1,2% in Oct-Dec 2014. The increase in consumer spending and inventory investment was offset by an expansion of the trade deficit.

In China, the economy has slowed down, with a GDP rate of 1,3% in Jan-Mar 2014, down from 1,5% in Jan-Mar 2014 and 1,9% in Oct-Dec 2014. On an annual basis, the growth rate was 7,0 % in Jan-Mar 2015, after 7,3% in Oct-Dec 2014.

The economies grew in Oct-Dec 2014 in India (+1,6%), Brazil (+0,4%), and South Africa (+1,0%). Russia registered zero growth in Oct-Dec 2014, however it grew at a rate of 0,1% on an annual basis.32

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

First sales: EUMOFA. Data analysed refers to the month of March 2015 and Jan-Mar 2015.

Global supply: European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE); MSC; FOS; APROMAR; Statistics Iceland; The Scottish Government; Norwegian Seafood Council.

Case study: EUMOFA; UK-Department for Environment Food & Rural Affairs.

Consumption: EUMOFA; http://britishseafishing.co.uk; www.seafish.org

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

The underlying first-sales data is in a separate Annex available on the EUMOFA website.

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

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 four languages: English, French, German, and Spanish.

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, other marine fish, salmonids, small pelagics, and tuna and tuna-like species.
- ² http://www.puertos.es/es-es/estadisticas/Paginas/estadistica_mensual.aspx
- 3 http://www.dgrm.min-agricultura.pt/xeo/attachfileu.jsp?look_parentBoui=938831&att_display=n&att_download=y
- ⁴ http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2014/2014/sar-soth.pdf
- ⁵ http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2014/2014/sar-soth.pdf
- ⁶ http://www.fao.org/fishery/species/2238/en
- ⁷ http://ec.europa.eu/fisheries/marine_species/wild_species/hake/index_en.htm
- ⁸ http://www.fao.org/fishery/species/2238/en
- ⁹ EUROFISH Magazine, June 2014.
- ¹⁰ http://ec.europa.eu/newsroom/mare/itemlongdetail.cfm?item_id=23290&lang=en
- 11 http://ec.europa.eu/information_society/newsroom/cf/mare/itemlongdetail.cfm?item_id=22861&subweb=343&lang=en
- 12 http://ec.europa.eu/information_society/newsroom/cf/mare/itemlongdetail.cfm?item_id=22801&subweb=343&lang=en
- 13 http://ec.europa.eu/information_society/newsroom/cf/mare/itemlongdetail.cfm?item_id=22798&subweb=343&lang=en
- 14 http://www.statice.is/Pages/444?NewsID=11226
- 15 http://news.scotland.gov.uk/News/Fish-landings-18d6.aspx
- ¹⁶ http://news.scotland.gov.uk/News/Highest-ever-mussel-production-18ef.aspx
- 17 http://www.apromar.es/content/resultados-productivos-de-la-acuicultura-marina-espa%C3%B1ola-en-2014
- 18 https://www.msc.org/newsroom/news/greenland-lands-msc-certificates-for-barents-sea-cod-haddock-and-saithefisheries?fromsearch=1&isnewssearch=1
- ¹⁹ http://www.friendofthesea.org/news-doc.asp?CAT=1&ID=834
- ²⁰ http://www.friendofthesea.org/news-doc.asp?CAT=1&ID=836
- ²¹ http://en.seafood.no/News-and-media/News-archive/Press-releases/Norwegian-Codfish-Exports-Exceed-NOK-1-Billion-in-April
- ²² EUMOFA.
- ²³ FUMOFA.
- ²⁴ EUMOFA.
- ²⁵ https://www.gov.uk/government/collections/family-food-statistics
- ²⁶ From 17 August 2013 to 17 August 2014.
- ²⁷ http://britishseafishing.co.uk/plaice/
- ²⁸ http://www.seafish.org/media/publications/SeafishResponsibleSourcingGuide_plaice_201305.pdf
- ²⁹ Chamber of Commerce of Forlì-Cesena. http://www.fc.camcom.it/prezzi/listino/prodotti/prodotto.jsp?id=1440
- 30 Estimated provisional.
- ³¹ Eurostatistics Data for short-term economic analysis, Issue number 5/2015 http://ec.europa.eu/eurostat/documents/3217494/6835216/KS-BJ-15-005-EN-N.pdf/1a555e6c-37d3-4957-bf75-cc975841658b

³² Ibidem.