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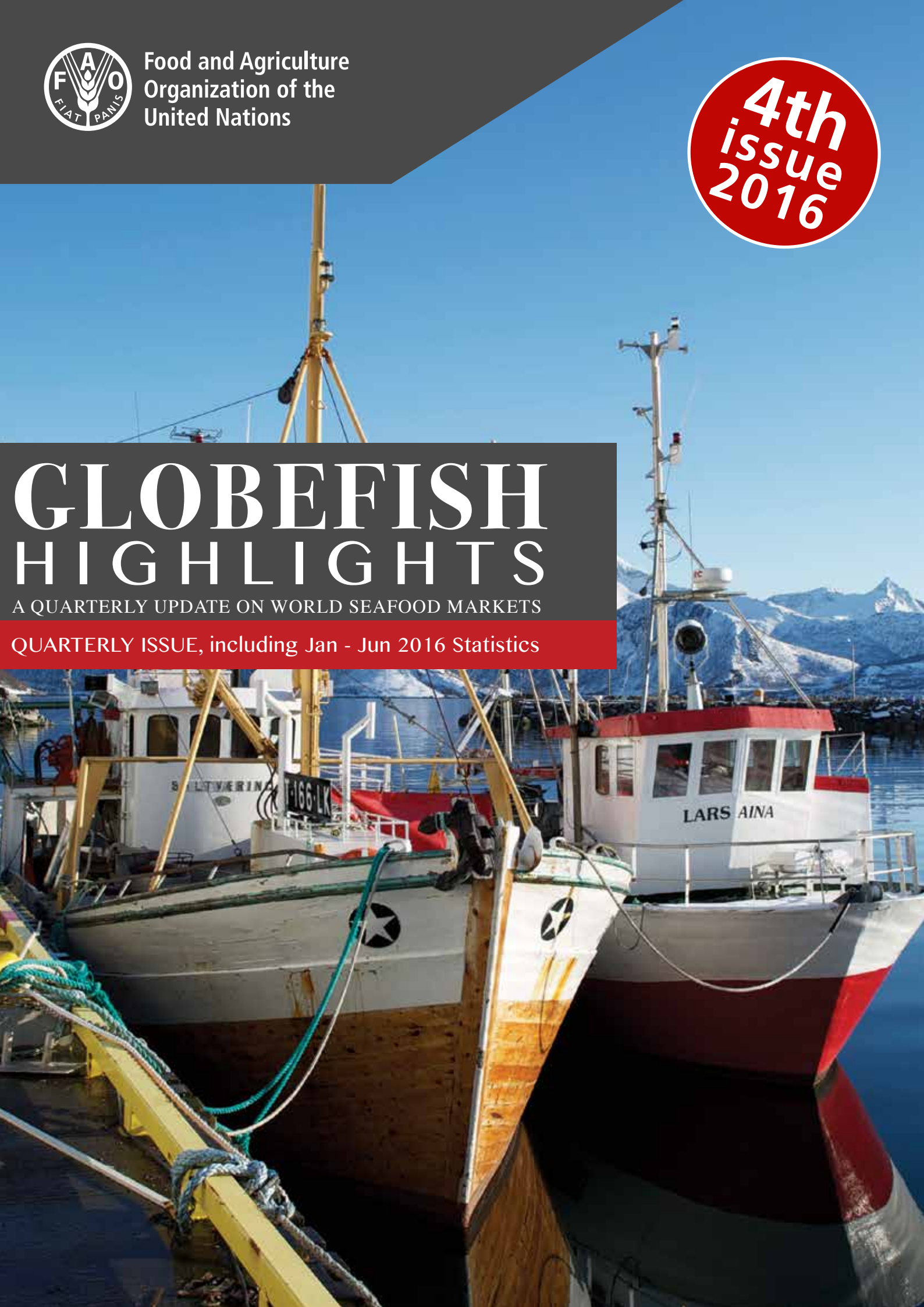
GLOBEFISH HIGHLIGHTS

A QUARTERLY UPDATE ON WORLD SEAFOOD MARKETS

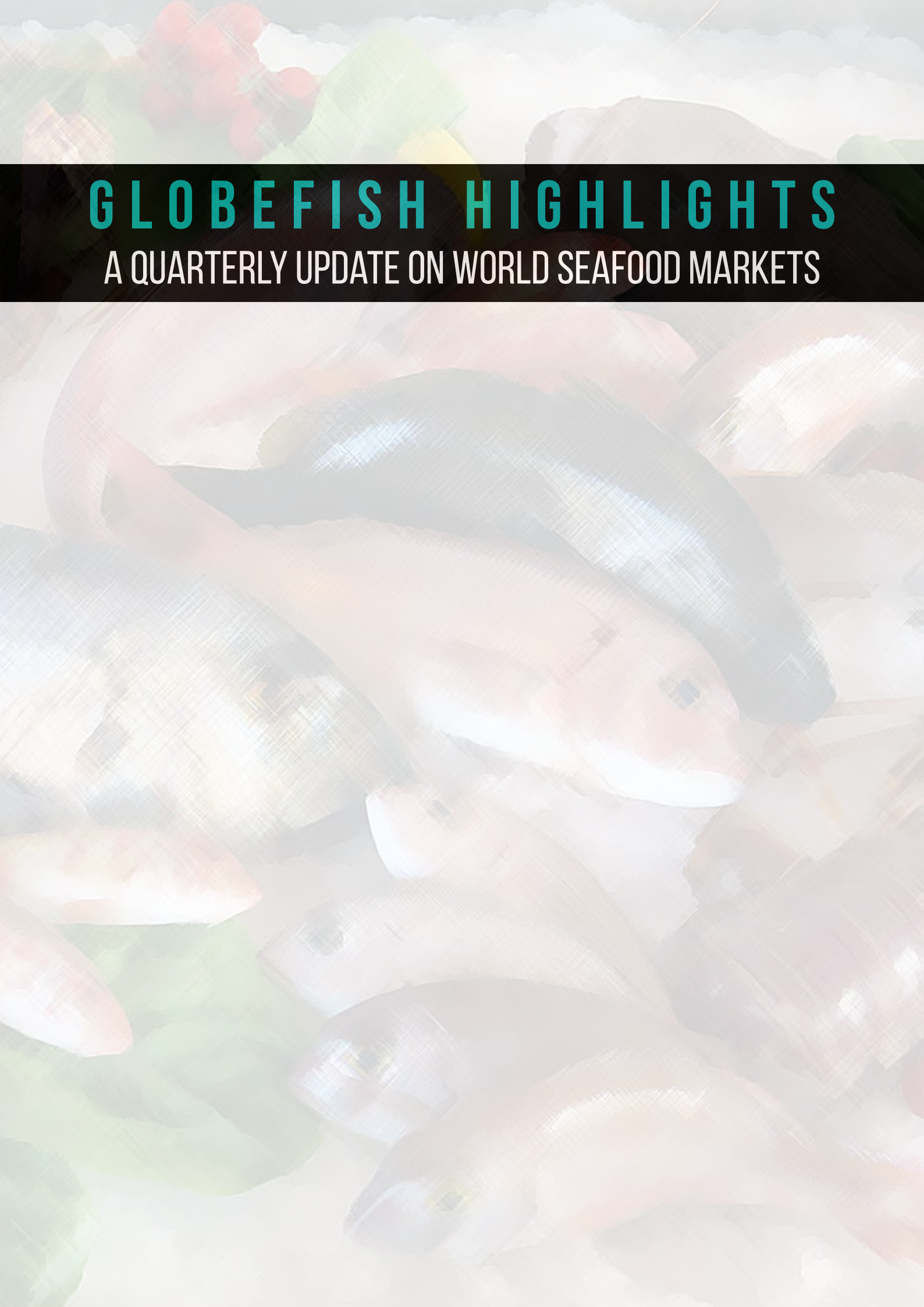
QUARTERLY ISSUE, including Jan - Jun 2016 Statistics



ABOUT GLOBEFISH

GLOBEFISH forms part of the Products, Trade and Marketing Branch of the FAO Fisheries and Aquaculture Department and is part of the FISH INFOnetwork. It collects information from the main market areas in developed countries for the benefit of the world's producers and exporters. Part of its services is an electronic databank and the distribution of information through the European Fish Price Report, the GLOBEFISH Highlights, the GLOBEFISH Research Programme and the Commodity Updates.

The GLOBEFISH Highlights is based on information available in the databank, supplemented by market information from industry correspondents and from six regional services which form the FISH INFOnetwork: INFOFISH (Asia and the Pacific), INFOPESCA (Latin America and the Caribbean), INFOPECHE (Africa), INFOSAMAK (Arab countries), EUROFISH (Central and Eastern Europe) and INFOYU (China).



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ACKNOWLEDGEMENTS

GLOBEFISH HIGHLIGHTS

This issue of GLOBEFISH Highlights has been prepared by Anna Child, Silvio Alejandro R. Catalano Garcia, Helga Josupeit, Shen Nianjun, Turan Rahimzadeh, Paola Sabatini and Weiwei Wang with contributions by Shirlene M. Anthonysamy (Pangasius & Tilapia), Felix Dent (Salmon & Seabass/bream), Fatima Ferdouse (Shrimp & Tuna), José Fernández-Polanco (Special Feature), H. Roy Gordon (Abalone), Erik Hempel (Cephalopods, Crab, Groundfish, Lobster & Small Pelagics), Helga Josupeit (Bivalves), Rodrigo Misa (Salmon & Shrimp regional contributions), Ferit Rad (Seabass/bream regional contributions), Katia Tribilustova (Seabass/bream regional contributions) and Weiwei Wang (Fishmeal/oil).

Anna Child provided coordination and editing services, Silvio Alejandro R. Catalano Garcia directed the graphic design, Helga Josupeit and Shen Nianjun were responsible for quality content checks, Turan Rahimzadeh was responsible for the layout and updated the events section, and Fatima Ferdouse, Paola Sabatini and Weiwei Wang created statistical figures. The Norwegian Seafood Council provided data support for the FAO Fish Price Index. Illustrations were sourced from the Food and Agriculture Organization of the United Nations, Original Scientific Illustrations Archive.

For more information please contact:

GLOBEFISH, FIAM/FAO Tel: (39-06) 5705 2884
Viale delle Terme di Caracalla Fax: (39-06) 5705 3020
00153 Rome, Italy
Email: globefish@fao.org

www.fao.org/in-action/globefish

ACRONYMS AND ABBREVIATIONS

GLOBEFISH HIGHLIGHTS

ASEAN:	ASSOCIATION OF SOUTHEAST ASIAN NATIONS
FAD:	FISH AGGREGATING DEVICE
H&G:	HEADED & GUTTED
ICES:	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA
IMARPE:	INSTITUTO DEL MAR DEL PERU
IMR:	INSTITUTE OF MARINE RESEARCH (OF NORWAY)
IQF:	INDIVIDUALLY QUICK FROZEN
NSC:	NORWEGIAN SEAFOOD COUNCIL
PBO:	PIN BONE IN
PEI:	PRINCE EDWARD ISLAND

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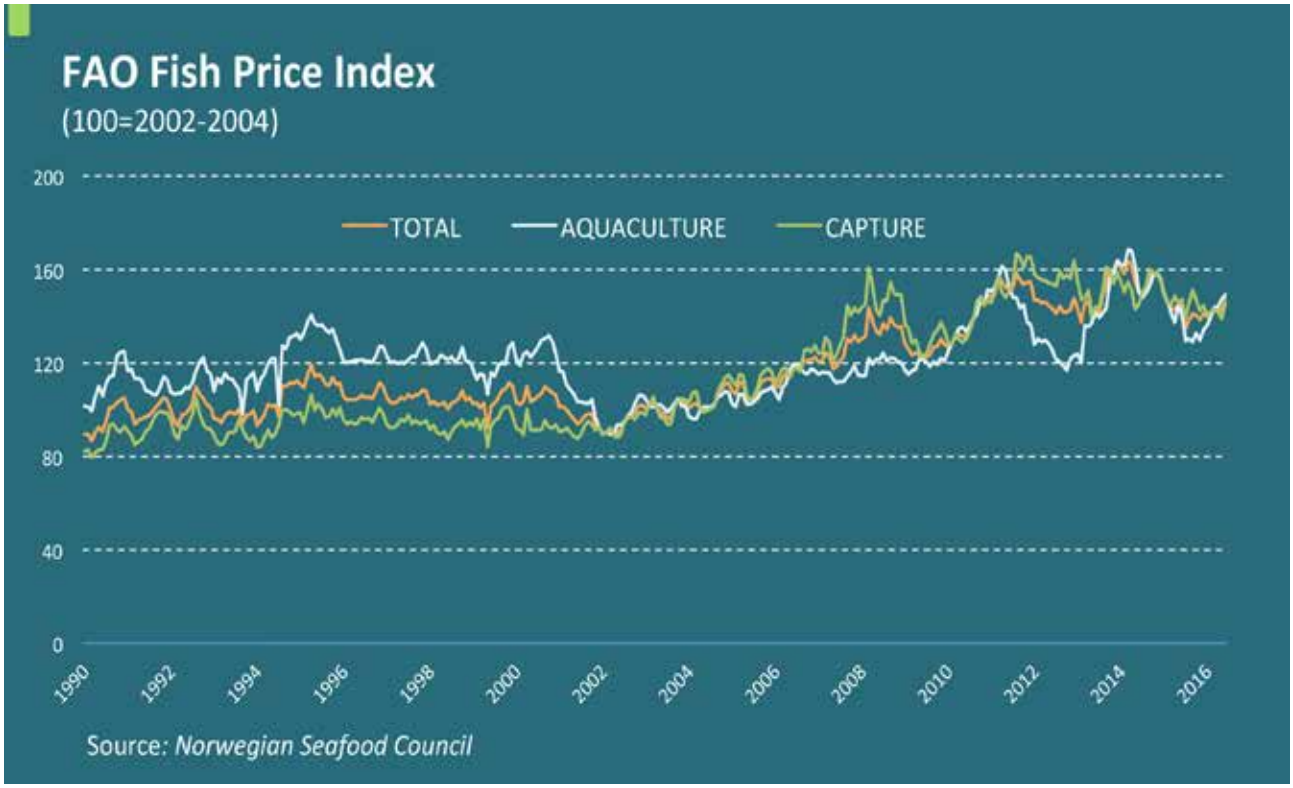
GLOBAL FISH ECONOMY

GLOBEFISH HIGHLIGHTS

Growth in global fish production is expected to slow slightly this year, driven primarily by lower catches of major wild species such as Alaska pollock and anchoveta.

Production solely from aquaculture continues to increase at a steady rate with a further 5 percent increase in total volume expected in 2016. Driven by higher incomes and urbanization, global consumption of fish is growing at a faster rate than global population, meaning that per capita consumption is rising each year by approximately 1 percent. In 2016, expected per capita consumption is 20.5 kg per year, compared with 20.3 kg in 2015 and 17.6 kg a decade ago in 2006. Another important figure is the proportion of fish produced by the aquaculture sector for human consumption, forecast to reach 53 percent this year, a trend that is only going up in the foreseeable future.

The total value of world trade in seafood products is expected to bounce back this year after a drop in 2015, to US$140 billion, representing a 4.4 percent increase, although this is still well below the 2014 total of US$148.4 billion. This return to growth in value terms is partly due to a stabilization of the US dollar after a sharp increase versus multiple currencies in 2015, but it is also a consequence of improved prices for a number of highly traded seafood commodities. Salmon prices, in particular, have been reaching extreme peaks in 2016, while tuna prices have also risen after a period of sustained lows. Supply constraints are part of the reason for the price gains, but demand growth is also a contributing factor.



World fish market at a glance

	2014	2015 estim.	2016 fcast.	Change: 2016 over 2015 %
	million tonnes			
WORLD BALANCE				
Production	**167.2**	**171.0**	**174.1**	**1.8** ▲
Capture fisheries	93.4	93.5	92.7	-0.9 ▼
Aquaculture	73.8	77.5	81.4	5.0 ▲
Trade value (exports US$ billion)	**148.3**	**134.1**	**140.0**	**4.4** ▲
Trade volume (live weight)	**60.0**	**59.9**	**60.0**	**0.2** ▲
Total utilization	**167.2**	**171.0**	**174.1**	**1.8** ▲
Food	146.3	149.4	152.8	2.3 ▲
Feed	15.8	16.5	16.2	-1.8 ▼
Other uses	5.1	5.1	5.1	0.0
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption				
Food fish (kg/year)	20.1	20.3	20.5	1.1 ▲
From capture fisheries (kg/year)	10.0	9.8	9.6	-1.8 ▼
From aquaculture (kg/year)	10.1	10.5	10.9	3.9 ▲

	2014	2015	2016 Jan-Jun	Change Jan-Jun 2016 over Jan-Jun 2015 %
FAO FISH PRICE INDEX				
(2002-2004=100)	157	142	143	-1.0

Source of the FAO Fish Price Index: Norwegian Seafood Council (NSC)

Totals may not match due to rounding.

Of the world's major seafood producers, it is Norway that continues to set the pace in terms of export revenue growth, driven by high prices for the key species of cod, salmon, mackerel and herring. Indeed, in US dollar terms, a 15 percent increase in Norway's seafood exports is expected this year compared with 2015, for a total of US$10.4 billion. While this total is lower than the 2014 figure, this must be understood in the context of a significant weakening of the Norwegian currency versus the US dollar since that year. Norway has benefitted from these exchange rate developments, as well as supply constraints driving up prices, but it is also an example of what can be achieved through coordinated marketing efforts and investment in market development at the state level. In Norway's case, these efforts have more than compensated for the loss of a major trading partner following the Russian Federation trade embargo.

On the market side, growth is being driven in 2016 by a recovering EU market and ongoing development of smaller markets in East and Southeast Asia as well as in the Near East. The latter are absorbing increasingly larger volumes of seafood, pointing to income growth and expansion of the middle class. Major exporters around the world are increasingly targeting these countries to the point where these emerging markets are competing with the traditional large markets even for premium seafood items such as salmon and shrimp. In particular, China, the world's largest seafood exporter, is benefiting from the expansion of its regional partner base. Demand in the EU market, meanwhile, is demonstrating considerable resilience to price increases for cephalopods, salmon and groundfish such as cod, leading to global import growth in 2016.

Low or stable supplies of many highly-traded species can be expected to push global seafood prices up further in the medium term, despite the economic difficulties currently being experienced in the major emerging markets such as the Russian Federation and Brazil. The recent contraction of the anchoveta supply following the El Niño weather event is likely to drive up fish feed prices, which in turn increases costs for producers of farmed carnivorous species around the world which will eventually be passed down the supply chain.

The potential effects of Brexit on trade dynamics between the UK and the EU, as well as its implications for fisheries management policies, is also something that the seafood industry is keeping a close eye on. The nature of the impact is dependent on the details of the deal that is eventually agreed upon. Climate change, and its impact on fish stocks, is another issue that is attracting ever more attention from experts worldwide, particularly with regard to the potential for changing water temperatures to prompt mass relocations of entire species.

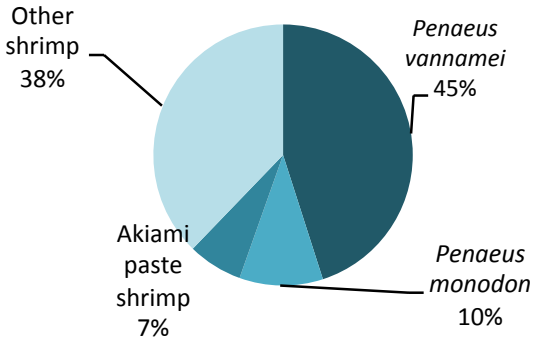
SHRIMP

GLOBEFISH HIGHLIGHTS

Low and stable prices fueling demand in the EU and Japan

Although shrimp supplies remained stable during the first half of 2016, shrimp farmers in most of the producing countries in Asia have been struggling with a number of challenges during the main farming season (July–September). These include poor weather conditions, disease problems, unattractive prices and slow demand in the US market. Production did increase in Thailand.

Shrimp production by species, both wild and farmed (2014)



Source: ***FAO***

Supply

For the first half of 2016, shrimp farmers have had it tough. Lower production of farmed shrimp has been reported in China due to disease issues. Similarly, production in the southern Indian states of Andhra and Tamil Nadu has also been affected by disease outbreaks (white spot syndrome, terocytozoon hepatopenaei, white feces and running mortality syndromes) and flooding. Despite these difficulties, overall supply in India has been balanced by farmers significantly shifting from black tiger to vannamei around the southeastern belt of India, namely Gujarat, Odissa and West Bengal. Indian farmers continued to produce more large sizes suitable for 13/15–21/25 shell-on products.

Indonesian farmers have also had stocks affected by diseases and have had to move to new areas as a result. Based on sales of shrimp feed, production this year can be forecasted to be more or less the same as 2015, close to 600 000 tonnes.

Authorities in Viet Nam have reported lower harvests this year. Farming of vannamei and black tiger shrimp in the Mekong Delta, the largest farming area of the country, has been affected by diseases and draught during the first part of the year. According to the industry association the Vietnam Association of Seafood Exporters and Producers (VASEP), the farming area for black tiger shrimp expanded this year, but production volume remained unchanged compared with last year.

Thailand is the only country where the shrimp farming sector seems to have come out this season unscathed. Slow but steady rise in vannamei production has been observed and this year's production is likely to reach 300 000 tonnes.

Export summary

Global ranking of shrimp exporters during the first half of 2016 remained the same as that in 2015 with Ecuador, India, Thailand, Indonesia and China as the top five exporters.

The leading two exporters, Ecuador and India, increased exports by 7.6 percent and 10.8 percent to total 180 000 and 179 000 tonnes respectively. For Ecuador, the top three export destinations during the reporting period were Viet Nam (80 000 tonnes), the EU (44 000 tonnes) and the USA (35 000 tonnes).

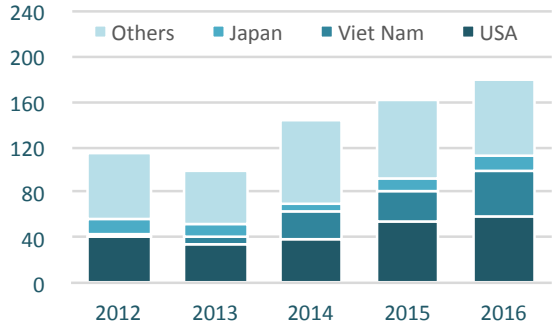
Coming out from disease issues, Thailand regained

its market share and ranked third in global shrimp exports. Supplies increased by 33 percent during January–June 2016 against the same period last year to 94 000 tonnes. Its main markets in volume exports were the USA, Japan, Viet Nam, Hong Kong SAR and Canada.

Indonesia followed Thailand in exports, with volumes reaching 80 000 tonnes (+7 percent) during January–May of this year. Its top five markets were the USA, Japan, the EU, Malaysia and Viet Nam. Exports may have crossed 90 000 tonnes during the first half of the year.

India | Exports | Shrimp
Top three destinations

Unit: 1 000 tonnes, Jan-Jun



Source: *Ministry Of Commerce*

China had a 2.3 percent rise in shrimp exports to come to 82 000 tonnes during the reporting period. Exports increased to the USA, Republic of Korea, Hong Kong SAR and Taiwan Province of China but declined marginally to Japan.

Import summary

Compared with last year, 2016 cumulative imports during the January–June period in the USA, the single largest shrimp market, declined by 1.2 percent but increased in Japan (+7 percent), the EU (+17.8 percent), Russian Federation, (+44 percent), Australia (+4 percent) and South Africa (+15 percent).

Shrimp imports also increased in East Asia and the Near East markets, largely supplied by Asia as well as Ecuador.

Demand and price structures observed in the international shrimp market during the first quarter of the year persisted through June.

Japan

Stable yen and lower shrimp prices generated better demand for shrimp in the Japanese market during the first half of the year. Demand for the higher priced black tiger shrimp has also been strong, particularly in the Kansai region, although consumption still remains seasonal.

During January–June 2016, shrimp imports increased by 6.8 percent to total 92 700 tonnes in the market, in which 28 percent were high-value processed products such as tempura shrimp, cooked shrimp and sushi shrimp with rich. Thailand had a 42 percent share in this high-value shrimp market.

During the summer holiday months of July/August, consumer demand for shrimp increased for tempura shrimp for take-away lunch boxes and for peeled/ cooked shrimp at family restaurant chains.

Industry sources continue to foresee salmon as a competitor for shrimp in the Japanese retail and catering trade, particularly in sushi shops and restaurants.

Japanese imports of shrimp (by product)

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
Frozen, raw	85.7	84.5	63.4	59.7	65.8
Cooked, frozen	11.3	12.4	9.5	8.5	8.7
Prepared/preserved	23.2	23.1	17.0	16.9	16.4
Sushi (with rice)	0.9	1.2	0.8	1.6	1.2
Total	**122.8**	**122.2**	**94.1**	**86.9**	**92.8**

Source: *Japan Customs/INFOFISH*

USA

After a disappointing first half of the year, consumer shrimp demand in the US market improved during the summer months due to stable wholesale prices. However, high inventory of shell-on shrimp resulted in lower imports of that product category (-5.7 percent) during the first half of this year compared with the same period last year.

US imports of shrimp (by product)

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
Shell-on frozen	95.2	85.0	91.2	104.0	98.0
Peeled frozen	89.7	93.0	102.1	103.3	109.3
Breaded	18.4	16.4	19.7	23.3	20.6
Other products	36.4	29.3	35.3	37.3	36.5
Total	**239.7**	**223.7**	**248.3**	**267.9**	**264.4**

Source: *NMFS*

Reportedly, there was a supply shortfall for the preferred individually quick frozen (IQF), easy-peel, shell-on shrimp from Indonesia during this period. Although imports of raw peeled shrimp increased by 5.8 percent, overall imports declined marginally (-1.2 percent) during January–June 2016 compared with the same period last year. Imports of breaded shrimp were lower than the same period in 2015.

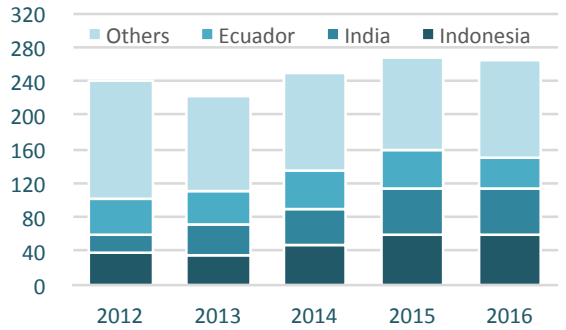
Supplies into the USA declined from the top three sources namely Indonesia, Ecuador and India. However, the recovery in supplies from Thailand is noteworthy during the reporting period. Demand for black tiger shrimp has also been healthy during this period leading to higher supplies from Bangladesh.

EU

EU shrimp imports from non-member countries increased by 5.4 percent during the first half of 2016. Nearly 21 percent of extra-EU shrimp imports consisted of processed products from Viet Nam, Canada and Greenland. Intra-EU imports increased by a significant 40 percent.

USA | Imports | Shrimp
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *US-NMFS*

EU imports/exports of shrimp

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
India	25.2	28.6	39.7	37.1	37.0
Greenland	27.7	29.7	27.4	21.8	26.4
Ecuador	41.5	40.7	45.8	41.5	43.6
Others	152.6	136.3	132.1	138.6	145.3
Intra-EU	**114.4**	**106.8**	**112.8**	**112.2**	**109.2**
Extra EU	**36.6**	**34.0**	**34.0**	**34.0**	**29.5**
Total	**151.0**	**140.8**	**146.8**	**146.2**	**138.7**

Source: *EUROSTAT*

IMPORTS

EXPORTS

The top import markets were Spain (60 900 tonnes), France (53 700 tonnes), Denmark (41 800 tonnes), the UK (36 000 tonnes) and Italy (32 000 tonnes). Imports increased in all of these markets except in Spain. There were also higher imports into Germany (24 600 tonnes).

In Eastern Europe, shrimp imports increased in the Russian Federation to 13 800 tonnes during January–June this year, which is 44 percent higher than the same period in 2015. This reflects a remarkable recovery after the disruption of shrimp trade at the start of the food embargo. Traditionally, Denmark was the main supplier of shrimp to the Russian Federation, but this country is now cut out from the market. There was also significant import growth in Ukraine at 1 500 tonnes compared with 345 tonnes imported a year ago.

Asia and other markets

During the first half of 2016, shrimp imports into Viet Nam from the ten main suppliers reached nearly 145 000 tonnes, which is 38 percent higher than the same period in 2015. Notably, Viet Nam was the number one export destination for shrimp exports from Ecuador and Iran, second for India, third for Thailand and fourth for Indonesia. These supplies are then re-exported from Viet Nam with or without further processing.

According to official data in China, the market imported 55 100 tonnes of shrimp during January–June this year, which is nearly 64 percent higher than the same period last year. The top five suppliers were Argentina (13 600 tonnes), Canada (10 100 tonnes), Ecuador (9 300 tonnes) Thailand (6 400 tonnes) and India (3 700 tonnes). Imports increased from all of these sources. Reported imports from Viet Nam were only 1 500 tonnes during this period, as imports through border trade were possibly not included under this reporting.

The other Asian markets that bought more shrimp during January–June period were Republic of Korea, Hong Kong SAR, Taiwan Province of China and Singapore.

There were increased imports of shrimp in the United Arab Emirates from India (8 250 tonnes) during the

review period and as well as to the neighboring Sri Lanka and Maldives from this source. Indian exports of fresh, air-flown, head-on vannamei has increased to the Gulf countries in the Middle East, where this product is gaining popularity.

In the Pacific, shrimp imports increased into Australia and New Zealand by 4 percent and 23 percent at 13 400 and 2 200 tonnes respectively.

Outlook

Supplies of farmed shrimp will be seasonally low starting in October until the beginning of next season in April/May 2017. As September marks the last peak harvesting month in most parts of Asia, ex-farm prices of shrimp have started to firm up in the producing countries, in expectation of lower supply and high demand during Christmas and Chinese New Year.

Meanwhile, US buyers have started to replenish stocks for the holiday season. Cumulative imports until August increased by almost 4 percent in the USA compared with the same period last year. Imports in Japan during January–August also increased by 5 percent but with lower supplies from Indonesia and Viet Nam. However, supplies increased from India.

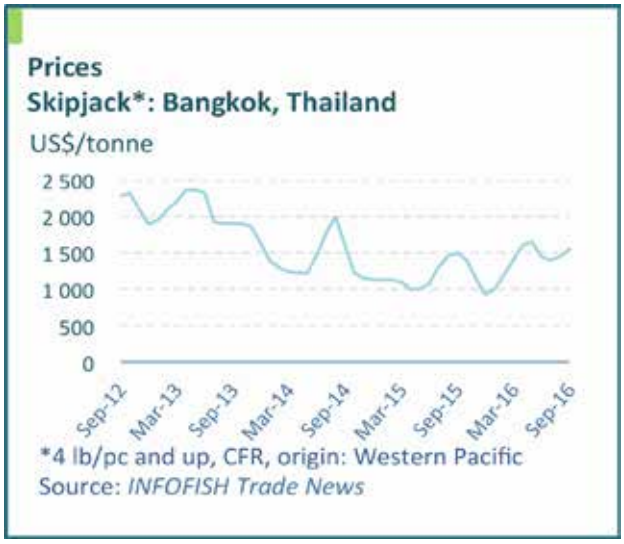
In Europe, traders have started to build up inventories as well for the Christmas period. Imports in China during this period have increased by 32 percent, indicating strong demand in the market. All of these developments indicate a firmer trend in the international shrimp market for the near future.

TUNA

GLOBEFISH HIGHLIGHTS

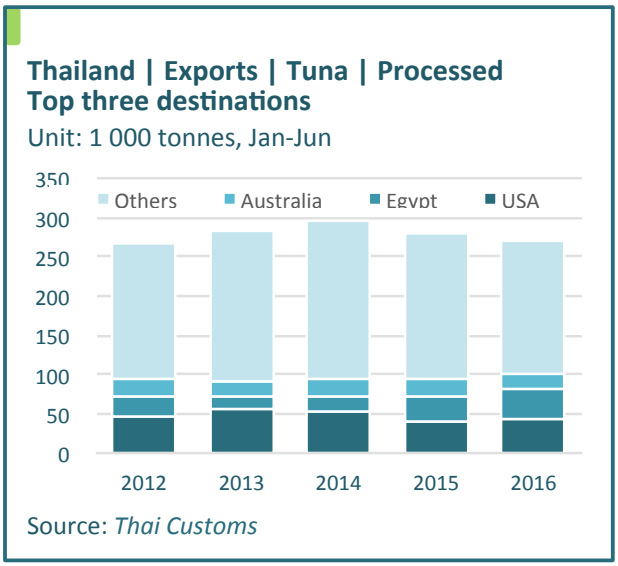
Prices of frozen skipjack remain stable

Despite the approved seasonal catch restrictions in the Pacific Ocean, prices of skipjack remained stable in the third quarter of 2016. This could be associated with stagnant import demand for processed tuna from the large western markets as well as heavy inventories of frozen raw material in Thailand, the world's biggest processing hub. For canned tuna, prices have declined in the international market, helping to maintain strong demand in developing countries.

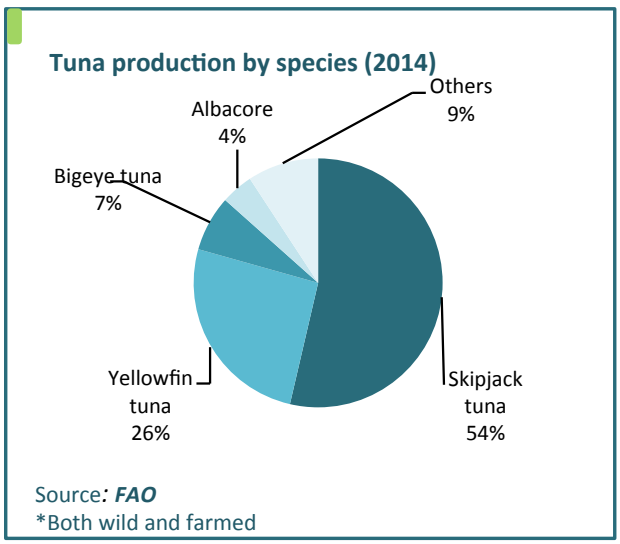


Supply

In the Pacific, tuna catches were seasonally low. This was largely a result of the July–October closure on fish aggregating devices (FAD) in the Western and Central Pacific (WCP) as well as the two-month Inter-American-Tropical-Tuna-Commission (IATTC) 'veda' closure in the Eastern Pacific starting in late July for half of the fishing fleet.



Despite these two main fishing closures, raw material prices - particularly for skipjack - remained relatively stable at below US$1 400–1 450 per tonne during June–August. Stable prices could be explained by comparatively low global demand for raw material tuna throughout this period as Thai canners were holding healthy stocks of frozen fish and processing activities were slow. Raw material demand was also sluggish for European tuna canners in Spain, Italy,



France and Portugal. In the Eastern Pacific, canneries did report lower raw material inventories and subsequently, there has been an increase in carrier arrivals from WCP.

RECENT NEWS

No consensus reached on tuna landings cutback

At the recent WCP Fisheries Committee meeting in Fukuoka, Japan from 29 August to 2 September, participants included Japan, China, the USA, Fiji, Vanuatu, Canada, Republic of Korea, the Philippines, the Cook Islands and Taiwan Province of China. Japan proposed introducing cutbacks on landings if stocks dropped for three consecutive years. However, other participants at the meeting opposed the proposal and no consensus was reached.

The price situation for skipjack from the WCP started to improve in September, when the FAD closure moved into its third month. For the Japanese, Kiribati and Republic of Korea fleets, this was the last month of the closure as they opted to limit their annual FAD sets. The reduction in fish landings from the WCP is being compensated by arrivals from the Indian Ocean and raw material stocks in Thailand, where healthy raw material inventories continued.

Japanese tuna landings, fresh and frozen (by species)

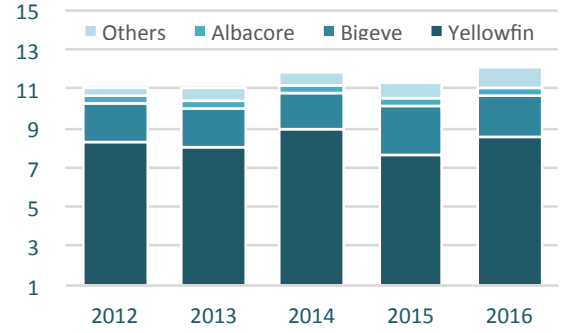
	January-June				
	2012	2013	2014	2015	2015
	(1 000 tonnes)				
Bluefin	0.9	1.2	2.1	2.3	2.8
Bigeye	12.6	13.7	14.1	15.4	14.6
Yellowfin	20.4	11.8	19.2	17.5	17.0
Skipjack	119.3	130.3	122.7	115.8	100.5
Albacore	40.5	39.4	35.0	28.6	24.6
Total	**193.7**	**196.4**	**193.1**	**179.6**	**159.5**

Source: *MAFF, Japan/INFOFISH* (includes distant water catches)

Fishing in the Atlantic Ocean remained moderate-to-good and raw material inventories at local canneries were healthy. Due to improved supplies from both the Indian and Atlantic Oceans, European prices for skipjack and yellowfin have weakened. However, prices of yellowfin loins, cooked and double-cleaned, have increased.

USA | Imports | Tuna | Fresh
Top three species

Unit: 1 000 tonnes, Jan-Jun



Source: *NMFS*

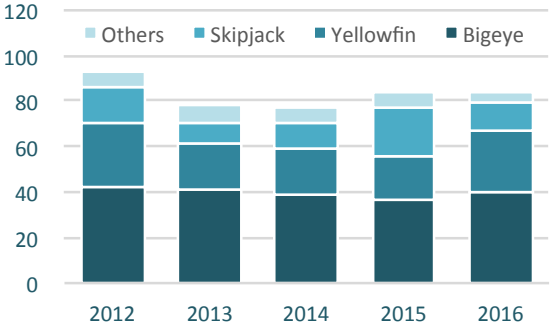
During January–June 2015, Japanese tuna landings – fresh and frozen from both coastal and distant waters – were at a five year low totaling only 159 500 tonnes. This total was comprised of 44 405 tonnes of fresh tuna, which in general were caught along the Japanese coastal waters. Albacore dominated fresh tuna landings (20 000 tonnes). With the exception of fresh and frozen bluefin and fresh bigeye, catches declined for all other species.

Fresh and Frozen tuna market

For the first time in many years, Japanese imports of fresh and frozen tuna increased during January–June 2016 compared with the same period last year. This increase could be the result of a shortfall in local tuna landings (fresh) during this period.

Japan | Imports | Tuna | Frozen
Top three species

Unit: 1 000 tonnes, Jan-Jun



Source: *Japan Customs/INFOFISH*

USA

During the first half of 2016, US imports of non-canned tuna (fresh and frozen) reached 28 600 tonnes, a nearly 12 percent rise compared with the same period last year. Almost 52 percent of this was frozen loins and fillets, while 42 percent was whole/dressed, fresh/chilled tuna air-flown from mostly Asia and some from Latin America.

In terms of only fresh tuna imports, the USA demonstrated a 7 percent rise in imports against the same period last year at 12 100 tonnes. With this increase, the USA once again dominated the international fresh/chilled tuna trade during the first half of 2016. Although Japanese fresh tuna imports increased by 31 percent during the review period, they still remained below US imports of air-flown tuna during this period.

Japan

Japanese imports of frozen tuna loins, mostly meant for sashimi, remained the same as last year's at around 23 200 tonnes. This volume consisted mostly of high-priced bluefin fillets (11 000 tonnes), cheaper red meat quality bigeye (6 000) and yellowfin fillets (5 600). During the review period, total imports of red meat quality fillets fell by 3.6 percent as there were lower supplies from the leading suppliers: the Republic of Korea, China and Taiwan Province of China. In contrast, imports of frozen Atlantic bluefin loin increased. Compared with fresh tuna fillets, market preference for frozen, sashimi-quality tuna has been on the rise in Japan due to its longer shelf life, though this demand has become more seasonal.

For the first time in many years, imports of air-flown fresh/chilled tuna in Japan showed positive growth during the first half of the year. Imports were 31 percent higher compared with the same period last year to total 11 000 tonnes with increased supplies of bluefin, bigeye and yellowfin tuna.

Canned tuna market

Export summary

The top six exporters of canned tuna for the first half of the year in order were: Thailand, Ecuador, Spain, China, Indonesia and Mauritius. Compared with the same time period last year, exports declined from Thailand (-3.4 percent) and Mauritius (-3.6 percent) but increased from Ecuador (+3.6 percent), Spain (+6.8 percent), China (+15.7 percent) and Indonesia (+4.6 percent), for the latter for January-May 2015/2016 period only.

A prevailing trend for the first half of 2016 is that canned tuna exporters who are moving away from the traditional large western markets have increased shipments at higher rates than other exporters who have tended to focus only on the traditional markets. Indeed, Indonesian exports have benefited from this approach as shipments have increased by 10 percent to the EU, 18 percent to Saudi Arabia, 60 percent to Egypt, 640 percent to United Arab Emirates, 155 percent to Jordan and 120 percent to Oman compared with the same period in 2015.

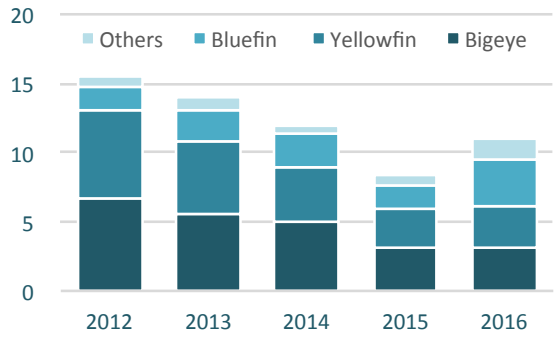
Import summary

Mixed trends continue in the global canned tuna market. Lack of demand persisted in the USA and western European markets during the first half of 2016 but import demand increased in the smaller markets in Eastern Europe, the Middle East, Southeast Asia as well as in Latin America, supported by affordable prices.

During the first half of 2016, extra EU-27 imports of processed and canned tuna remained stagnant at 249 000 tonnes due to falling demand for cooked loins by European tuna processors. However, imports

Japan | Imports | Tuna | Fresh/chilled
Top three species

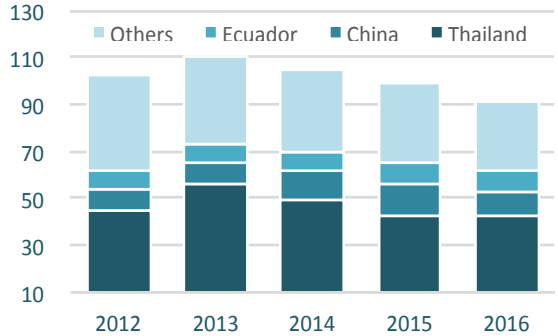
Unit: 1 000 tonnes, Jan-Jun



Source: *Japan Customs/INFOFISH*

USA | Imports | Tuna |Canned/prepared
Top three origins

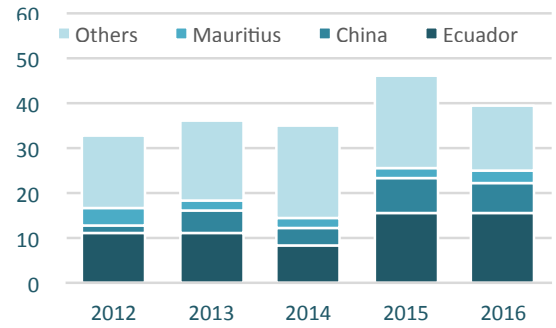
Unit: 1 000 tonnes, Jan-Jun



Source: *NMFS*

of canned tuna for direct consumption increased during this period. In order of ranking, extra-EU imports totaled about 62 850 tonnes from Ecuador (+20 percent), 26 400 tonnes from Seychelles (+16 percent), 26 000 tonnes from Mauritius (-6 percent), 21 000 tonnes from Thailand (-13.4 percent) and 19 000 tonnes from the Philippines (-16 percent).

Spain | Imports | Tuna | Cooked loins
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *Eurostat*

Overall, import trends for processed and canned tuna in the USA remained negative with an 8.4 percent decline in supplies during the first half of 2016. Among the top suppliers to this market, imports fell from all except Thailand. Imports in Canada declined by 0.3 percent.

USA

Summer demand for canned/processed tuna in the USA was disappointing, reflected by the record low half-yearly imports in 2016. Except for canned albacore in oil, all product type imports declined. Cooked loin imports (HS 160414), which took a 35 percent share of total canned/processed imports, showed a 6 percent decline to total about 32 700 tonnes.

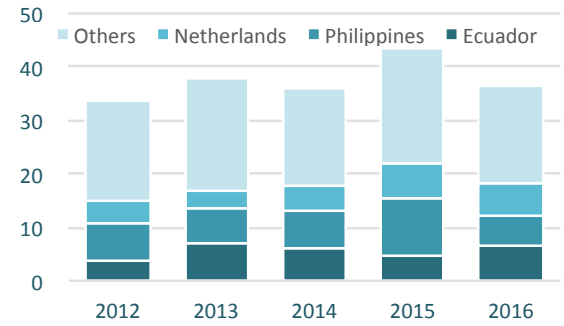
EU

Spanish imports of cooked loins alone fell by 14 percent against last year's. Imports into France were also lower than in 2015. Subsequently, total cooked loins imports into the EU dropped by 4.8 percent to total 68 900 tonnes. Notably, this year's summer demand for canned tuna in the major Northern European markets was negatively impacted by the unusually cold and rainy weather during the summer months.

Among the leading markets, imports increased by 13 percent in the UK, where demand, particularly for pole and line caught tuna products from the Maldives, strengthened.

In Germany, canned tuna imports declined by 15 percent during the first half of 2016 compared with the same period in 2015. Among the re-traders, the Netherlands imported 21 percent more during this period at 23 000 tonnes, but Belgian imports were 12.5 percent lower than last year's due to high local inventories. There was marginal import growth in Austria and Poland as well as in the Eastern European members of the EU, namely Czech Republic, Romania and Slovenia.

Germany | Imports | Tuna | Canned
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *Eurostat*

Other markets

In volume terms, Egypt, Japan, Australia and Canada were the four largest markets for canned tuna after the EU and the USA. Japan and Australia generally import higher-value product, however with the weakening of the Australian currency, canned tuna imports into this market have been falling. Canned tuna imports increased into Japan by 7.4 percent at 30 000 tonnes during the reporting period, but declined in Egypt by 3.3 percent (January-May), in Australia by 12.6 percent and by 0.3 percent in Canada.

Consumer demand for canned tuna has improved in East Asian markets namely Malaysia, Singapore, as well as in China and Taiwan Province of China. Lower prices also induced demand for processed tuna from Thailand in the regional niche markets such as Bangladesh, Sri Lanka, Pakistan and Nepal. In Latin America, canned tuna imports increased into Argentina, Mexico and Peru, but declined in Chile and Brazil.

Outlook

With the end of the FAD and veda closing periods in October, tuna supplies are likely to improve in the Pacific Ocean. As a result, raw material prices, particularly skipjack, may soften, especially if there is not strong demand from canners.

Low demand for conventional canned tuna in the large traditional markets of the USA and EU is likely to continue. However, the positive growth in the Near East, Asia, Latin America and in Eastern European markets will continue as products are becoming more affordable.

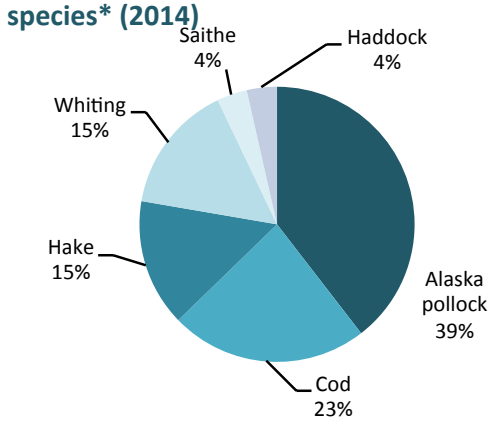
GROUNDFISH

GLOBEFISH HIGHLIGHTS

Slightly lower supplies next year, weaker surimi demand

The International Council for the Exploration of the Sea (ICES) has recommended a 10 percent decrease in the Barents Sea cod quota for 2017 but a 7 percent increase in the saithe quota. The Barents Sea cod recommendation combined with slightly declining landings of Alaska pollock will mean somewhat tighter supplies in 2017. This year's surimi production is expected to be lower than in 2015, and prices may weaken.

Groundfish production by selected species* (2014)



Source: ***FAO***
*Both wild and farmed

Resources

According to the FAO State of World Fisheries and Aquaculture (SOFIA) 2016, Alaska pollock is now the most harvested seafood in the world, despite a slight decline in total landings. In 2014, landings of Alaska pollock amounted to 3.2 million tonnes, compared with 3.1 million tonnes of anchovies, which previously held the top position. The figures for 2013 were 3.24 million tonnes for Alaska pollock and 5.7 million tonnes for anchovies.

Deteriorating environmental conditions in the ocean continue to impress concern for groundfish species. According to *Science Daily*, increasing ocean acidification could double the mortality of newly hatched cod larvae, putting this species under pressure. German research network BIOACID has quantified cod mortality rates in the western Baltic Sea and the Barents Sea, and concluded that harvesting rates should be reduced in order to secure a sustainable stock of cod in these regions.

Similarly, experts at the University of Hull are warning that North Sea cod and haddock may disappear in the future. They claim that climate changes may force these species away from the shores of the UK, as the species will move further north to find colder water.

According to ICES, the whitefish quotas in the Barents Sea are likely to stabilize in 2017, in spite of some change for individual species. ICES has recommended that the cod quota be cut to 805 000 tonnes compared with 894 000 tonnes in 2016, while the saithe quota be increased by 7 percent to 150 000 tonnes. For haddock, ICES recommends a quota of 233 000 tonnes, down from 244 000 tonnes in 2016.

WWF (World Wildlife Fund) Chile has called for urgent measures to be initiated in order to save the hake (*Merluccius gayi*) resource in its waters. According to the organization, this resource is in a state of exhaustion or collapse, and it calls on the authorities to take five important steps to save the hake. These include the introduction of a minimum catch size of 37 cm, identification of key hake feeding and breeding areas, reduction in the hake fishing quotas, a broader ban during the months of August through October, and finally, tougher enforcement and penalties for Illegal, Unreported and Unregulated (IUU) fishing.

The Canadian Minister of Fisheries has confirmed his decision to favour inshore fishers when allocating the quota for Northern cod. According to a press release from the Fish, Food & Allied Workers Union in July, the Minister stood by his commitment to allocate 115 000 tonnes of this quota to inshore fishers.

RECENT NEWS

Name confusion for Alaska Pollock could impose trade problems

Confusion is building in the whitefish industry over the name of Alaska pollock. Last year Americans gave Alaska pollock the scientific name *Gadus chalcogrammus* rather than its previous name *Theragra chalcogramma*. Recently the German Federal Ministry of Food and Agriculture (BME) also decided that Alaska pollock should be given the same scientific name (*Gadus chalcogrammus*). Meanwhile, the German authorities also stated that the trade name "Kabeljau" (cod) must not be used for the species *Gadus chalcogrammus*. EU institutions, on the other hand, will continue to use a different scientific name, Theragra chalcogramma. The ultimate consequence of this name confusion could be that traders might run up against problems with the trade quotas, as these are tied to the scientific names used by the countries.

Landings and processing

US production of Alaska pollock pinbone-out (PBO) fillets is up during the B season, according to recent reports. As of the middle of July, production of PBO, including blocks, IQF and shatterpack (frozen with interleaves) products stood at 21 400 tonnes, up by almost 16 percent compared with the same period last year. In contrast, production of deepskin blocks was down by 21 percent to 10 000 tonnes. Mince production was up by 14 percent and (H&G pollock was up by 91 percent to 4 200 tonnes (Source: *Undercurrent News*).

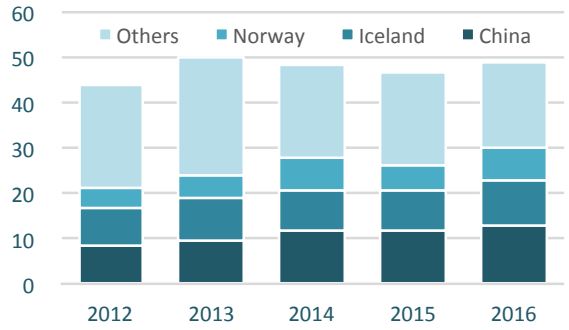
According to the Russian Pollock Catchers Association, catches of Alaska pollock were up by 3 percent as of the end of August. Total landings amounted to some 1.39 million tonnes, which was an increase of 39 500 tonnes compared with the same period in 2015.

However, the Russian Federation is now producing more fillets than before, as production of Alaska pollock fillets was up by 41 percent to 45 600 tonnes. H&G Alaska pollock production increased slightly from 557 100 tonnes in 2015 to 563 300 tonnes in 2016. Whole round Alaska pollock production declined from 184 600 tonnes in 2015 to 180 400 tonnes in 2016.

Chinese processors are suffering from a shortage of larger size H&G Alaska pollock for processing. The Russian Federation supplies of Alaska pollock have consisted of smaller-sized fish, which yield a fillet that is too small for the market. Consequently, prices for larger Alaska pollock have gone up significantly, while even medium-sized Alaska pollock is fetching somewhat higher prices at the moment.

UK | Imports | Cod | Frozen
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Her Majesty's Revenue & Customs*

Trade

An analysis done by the Norwegian Seafood Council (NSC) shows that Norwegian exports of seafood to the UK will suffer as a result of Brexit. Brexit has weakened the British pound and reduced the purchasing power of the British consumer, and this will translate into less imports of such products as seafood. According to NSC, round haddock and cod fillets are the two products that will probably be most affected. Audun Lem, Deputy Director of the Policy and Resources Division in the Fisheries and Aquaculture Department at FAO, noted that on the UK side, Brexit will cause difficultly for UK exporters due to more difficult market access to the EU.

UK imports of cod were strong in 2015, amounting to 115 300 tonnes at a value of 440 million pounds. This represented a 0.9 percent drop in volume, but an increase of 7.3 percent in value compared with 2014. Frozen fillets were the most imported product form, accounting for 63 percent of total cod imports. Norway was the only major supplier to see a drop in shipments in 2015, which were down 7 percent by value, while Russian Federation cod exports to the UK increased by a healthy 38 percent by value.

US imports of cod-like groundfish remain stable. During the first six months of 2016, a total of 56 200 tonnes of fillets and 68 600 tonnes of blocks and slabs were imported into the USA, compared with 54 600 tonnes and 69 700 tonnes in the same period in 2015. The largest supplier to the USA is China, which accounted for almost 40 percent of the combined imports of these products. The second largest supplier to the USA was Iceland.

US imports of cod-like groundfish (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
Fillets	China	41.0	40.0	41.8	38.9	39.8
	Iceland	4.6	6.0	5.8	4.9	6.5
	Russian Fed.	1.9	3.6	2.7	2.3	2.5
	Others	7.1	9.5	10.0	8.5	7.4
	Subtotal	**54.6**	**59.1**	**60.3**	**54.6**	**56.2**
Blocks/ Slabs	China	17.1	14.5	16.5	12.2	9.4
	Argentina	0.5	0.6	0.4	0.5	1.3
	Norway	0.2	0.3	0.5	0.5	0.6
	Others	2.4	2.7	1.7	1.9	1.1
	Subtotal	**20.2**	**18.1**	**19.1**	**15.1**	**12.4**
	Total	**74.8**	**77.2**	**79.4**	**69.7**	**68.6**

Source: *NMFS*

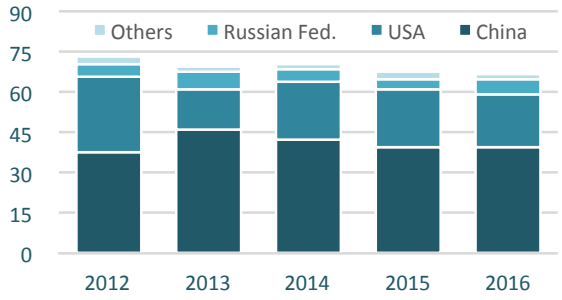
German imports of frozen cod fillets during the first half of the year increased slightly (+6.6 percent) compared with the same period last year. The largest supplier, China, strengthened its position, and accounted for 48 percent of German imports of this product, compared to its market share of 37 percent last year. Poland and Denmark were also major suppliers of cod fillets to Germany.

German imports of Alaska pollock during the first half of the year fell marginally, from 67 500 tonnes in 2015 to 66 800 tonnes in 2016. China accounted for 58.5 percent of this, while the USA accounted for 30.5 percent.

China has been importing large amounts of round frozen groundfish for processing and re-exports, but in the first half of 2016, Chinese imports of this raw material have declined somewhat. Imports of whole frozen cod did go up by 16 percent to 109 100 tonnes, but imports of whole frozen Alaska pollock went down by 11.5 percent, to 390 700 tonnes.

Germany | Imports | Alaska pollock | Frozen fillets
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Statistics Germany*

The reduction in pollock imports was reflected in lower chinese exports of frozen Alaska pollock fillets, which declined by 4.4 percent to 115 500 tonnes during the first six months of the year.

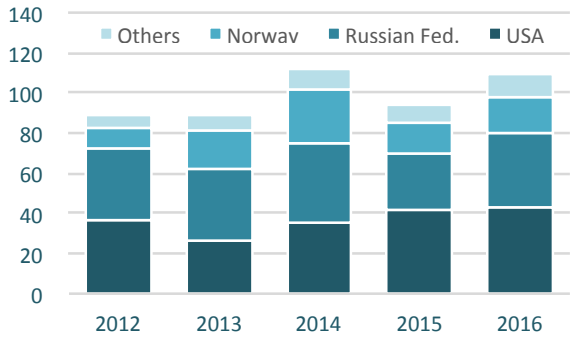
In contrast, Chinese exports of frozen cod fillets, went up by 6.5 percent to 62 700 tonnes.

BUSINESS NEWS

Company merger in Norway

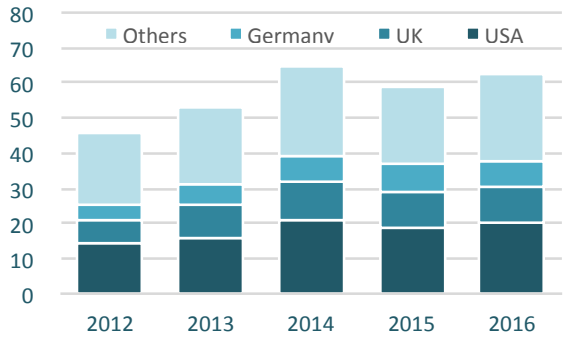
A company takeover in Norway may result in higher cod prices, according to Nordea. Lerøy Seafood Group, which is one of the largest suppliers of farmed salmon, has taken over Havfisk, which is Norway's largest fishing company. Havfisk holds about 10 percent of the total Norwegian cod quota, and is thus in a position to influence markets. According to analysts, Lerøy may attempt to move more cod into categories where there is greater willingness to pay higher prices. This would mean raised cod prices in general.

China | Imports | Cod | Frozen fillets
Top three origins
Unit: 1 000 tonnes, Jan-Jun



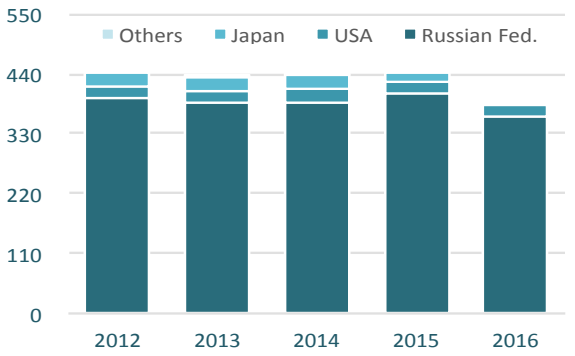
Source: *China Customs*

China | Exports | Cod | Frozen fillets
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



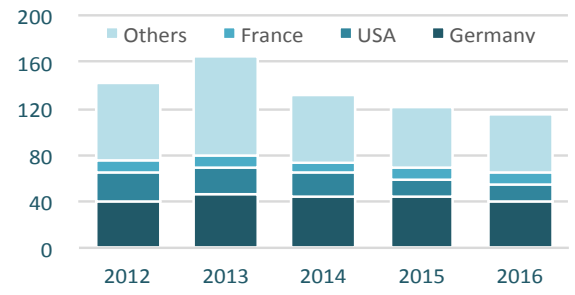
Source: *China Customs*

China | Imports | Alaska pollock | Whole frozen
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *China Customs*

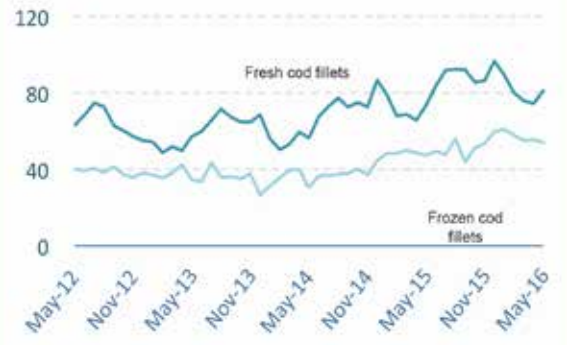
China | Exports| Alaska pollock | Frozen fillets
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: *China Customs*

Norwegian exports of fresh and frozen cod increased during the first eight months of the year by 7 percent. At the same time, export prices went up, and Norwegian exporters had reason to be happy.

Export price
Cod: Norway
NKr/kg

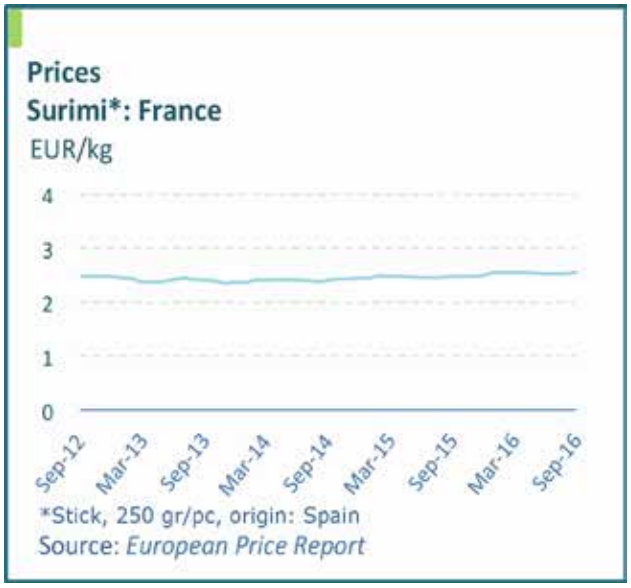


Source: *Norwegian Seafood Council*

Prices

Cod prices have been on the rise for a couple of years now, and are expected to remain on the high side. The Brexit vote will certainly affect this trade in the years to come, but for now the future remains somewhat unclear. According to analysts in Nordea Bank in Norway, there is a risk of whitefish prices weakening as a result of the Brexit vote. One reason for this is thought to be a weaker pound sterling. In contrast, the lower quotas for next season may act as a balance against this.

Haddock prices began with a rising trend in 2015, but weakened as the year wore on. Both Barents Sea haddock and cod prices are expected to weaken.



Major US fishing and processing company Trident Seafoods and Japanese buyers have agreed to drop the price of frozen Alaska pollock surimi by ¥50 for B season products compared with A season products. An underlying reason for this is the trend towards weakening demand. This will break with the five-year trend of increasing prices. As usual, Japanese buyers are taking a wait-and-see position and are therefore not keen on buying at the moment. European surimi prices in US dollars have stayed level, but Japanese operators expect these also to come down when converted into yen.

Surimi

The US Surimi Commission expects the total surimi production in 2016 to be lower than in 2015. This is partly due to lower Japanese production and a drop in surimi exports from Asian countries. Total surimi production based on Alaska pollock from the Bering Sea/Alutian Islands is expected to come down to about what is was last year, around 188 000 tonnes. Japanese Alaska pollock landings, however, were down by 21 percent during the period from January to May this year. While Japanese surimi production in 2000 was 70 000 tonnes, in 2016 it is expected to come to only about 30 000 tonnes. Surimi made from Pacific whiting in Japan was abnormally low in 2015, but in 2016 it is expected to be at 2014 levels, around 26 000–27 000 tonnes.

Japanese surimi production in the Hokkaido fishery is expected to drop this year. According to observers, production could be the lowest since 2000. But at the same time, imports from the USA are not expected to rise above last year's level of 12 000 tonnes. With the strong yen, prices for imported US surimi in Japan could be lower than for the domestically produced product. Total supply of frozen surimi on the Japanese market is expected to be about the same as last year, around 294 000 tonnes.

Outlook

The outlook for 2017 seems to be one of tighter supplies for some of the major species, and possibly higher prices. Some changes in the industry may also lead to innovation when it comes to targeting new consumer groups, and this could help push prices up in general. For surimi, production may decline a bit, but with weakening demand in Asia, prices are also expected to be lower.

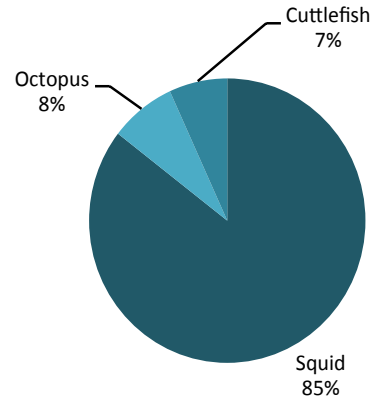
CEPHALOPODS

GLOBEFISH HIGHLIGHTS

International shortage of squid supplies

Low cephalopod catches in the South Western Atlantic and Peru have created a tighter supply situation this year. China is also expecting dramatically lower landings in 2016, especially from its overseas operations. Meanwhile, South Africa's landings are returning to normal.

Cephalopods production (2014)



Source: ***FAO***

Global landings of major cephalopod species

	January-June			
	2013	2014	2015	2016
	(1 000 tonnes)			
Shortfin squid	821.1	1 031.3	1 565.9	1 212.6
Jumbo squid	927.8	838.1	1 048	995.8
Loligo	386.5	362.8	359.6	199.7
Cuttlefish	156.3	151.5	140.1	152.7
Octopus	79.9	69.7	80.9	86.3
Total	**2 371.6**	**2 453.3**	**3 194.5**	**2 647.1**

Source: *CONXEMAR*, 2016

Supply

While landings of the major cephalopod species increased from 2012 to 2014, a 17 percent drop in landings was registered for 2015. Squid was responsible for this entire decline, as both cuttlefish landings and octopus landings increased.

However, taking a longer-term perspective, cephalopod stocks have grown over the past five decades. According to a researcher at the Institute of Marine Research in Spain, global warming may have benefitted some cephalopods stocks as temperature changes have forced some predator species away from cephalopod habitats. Some upwellings have also disappeared, and this has eased pressure on cephalopods due to forcing predator species away as well.

In China, it is expected that cephalopod landings will decline in 2016 due to poor squid catches. Forecasts show that production from overseas fishing operations will drop dramatically, from 879 000 tonnes in 2014, to an estimated 450 000 tonnes in 2016. One would expect that this dramatic fall in domestic and overseas fishing operations would lead to increased imports, but this is not thought to be the case due to the lack of low-priced raw materials available. In turn cephalopods, imports are expected to drop from 635 000 tonnes in 2015 to approximately 510 000 tonnes in 2016.

Consequently, China's processing industry will have a lack of raw material in 2016, and thus ceohalopod prices, mostly for squid are expected to rise dramatically on the Chinese market. Indeed, squid prices in this market have already doubled.

RECENT NEWS

CONXEMAR World Congress on Cephalopods

On 3 October, about 300 participants gathered in Vigo, Spain, for a one-day conference on cephalopods. This was the fifth time that CONXEMAR organized this conference.

The first part of the conference was focused on production and trade in the most important supplier countries, such as Argentina, Chile, Peru, Mauritania, and China. The second part of the conference was concentrated on sustainability issues and innovation through improved use of information technology.

It was noted that though cephalopods constitute a small part of total global fishery landings, its share of total supplies has increased from about 2 percent in 1980 to over 5 percent today. However, in the near-term the general consensus was that squid supplies are low this year and will remain low for the rest of 2016. Consequently, price increases are expected. For octopus and cuttlefish, the supply situation was better.

Octopus

Global octopus landings appear to be on an increasing trend right now. In 2015, landings increased by 6.7 percent compared with 2014. Increases were registered in the major suppliers (Morocco, Mauritania and Mexico), while landings in Spain, Portugal and the Republic of Korea declined.

According to the Marine Affairs of Galicia, the value of octopus landings in Galicia, Spain for the first half of the year exceeded €2.6 million, which is the highest level recorded since 2010. Even with significantly more product on the local market, prices have remained stable.

Squid

El Niño affected squid landings in Chile and Peru significantly this year during the winter and spring. As a consequence of poor catches, prices of squid have risen by up to 30 percent in these countries. Price spikes have led to a raw material crisis for some processors, such as a Thai processing company, which earlier built new processing facilities that were to rely on raw material from Chile and Peru.

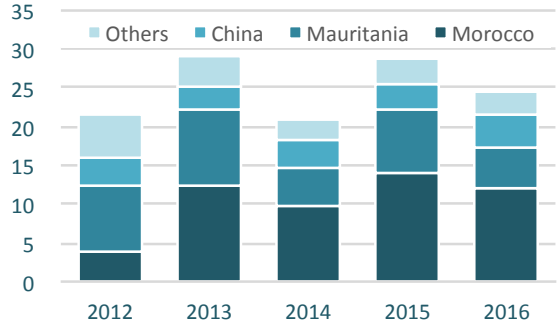
Argentina has also had a terrible squid season, although this is part of a longer-term trend. Landings have dropped for the third year in a row. Comparing only the first four months of 2016 and 2015, landings fell by 57.6 percent, from 75 200 tonnes to just 31 900 tonnes. Due to the very tight supply situation, prices were up by 29 percent, so that the total sales value dropped by 32.2 percent, a significant reduction.

In the USA, NOAA announced in late May that squid remains an important factor in California's fishing industry. However, due to El Niño in 2015, squid landings dropped significantly. In 2016, there have been some signs of improvement, but landed volumes are still quite low.

Squid inventories in Japan are at a record low level, with approximately 40 000 tonnes in storage

Japan | Imports | Octopus
Top three origins

Unit: 1 000 tonnes, Jan-Jun

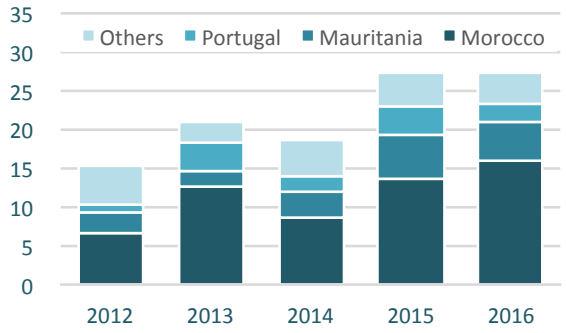


Source: *Japan Customs*

at the end of May. This was 7 percent below the figure for April. The reasons for this development are both poor domestic catches and reduced imports from the main suppliers. It is expected that inventories will continue to fall as poor landings have continued, and there has been no increase in imports, rather the opposite. Processors are now asking the government for increased import quotas due to the poor domestic landings.

Spain | Imports | Octopus
Top three origins

Unit: 1 000 tonnes, Jan-Jun



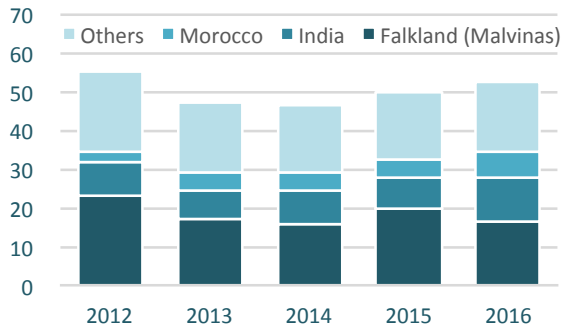
Source: *Agencia Tributaria*

Cuttlefish

In Portugal, cuttlefish sales are a seasonal affair. Sales usually peak in the spring period (March-May), and hit a low point during late summer/early autumn. In the period January through May 2016, Portuguese cuttlefish sales amounted to 750 tonnes worth €15 million. This represented a 2 percent increase by volume and an 8 percent increase by value. The price per kg tends to fluctuate significantly, and during this period, the trade price varied from €3.69 per kg to €9.19 per kg.

Spain | Imports | Squid
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Agencia Tributaria*

Trade

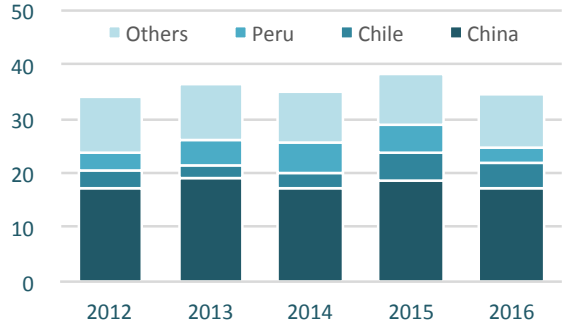
In 2015, Japan experienced a significant increase in imports of octopus. Indeed, during the first half of 2015, imports increased by 38.5 percent. However, during the first half of 2016, imports fell back by 15 percent, to 24 500 tonnes. Both of the main suppliers, Morocco and Mauritania, shipped less octopus to Japan during this period, while China increased shipments by almost 23 percent.

While Morocco reduced octopus shipments to Japan, it increased exports to another main market: Spain. Spanish octopus imports from Morocco went up by almost 17 percent, while imports from the second largest supplier to Spain, Mauritania, went down by 12.5 percent. Total Spanish imports of octopus remained stable at 27 200 tonnes during the first half of 2016.

Japan also saw a decline in imports of squid during the first half of 2016, from 38 200 tonnes in 2015 to 34 500 tonnes in 2016 (-9.7 percent). All of the major suppliers to Japan shipped less squid during this period. China, which still accounts for about

Japan | Imports | Squid
Top three origins

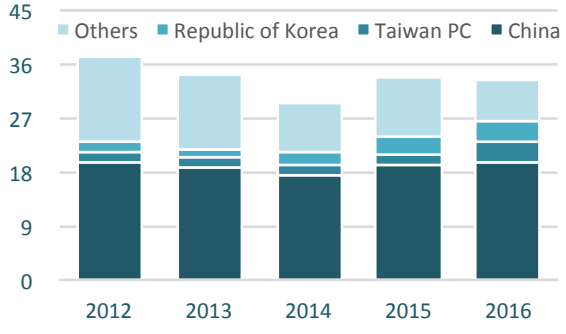
Unit: 1 000 tonnes, Jan-Jun



Source: *Japan Customs*

USA | Imports | Squid
Top three origins

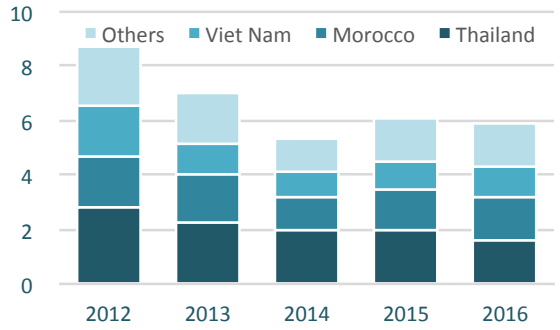
Unit: 1 000 tonnes, Jan-Jun



Source: *NMFS*

Japan | Imports | Cuttlefish
Top three origins

Unit: 1 000 tonnes, Jan-Jun

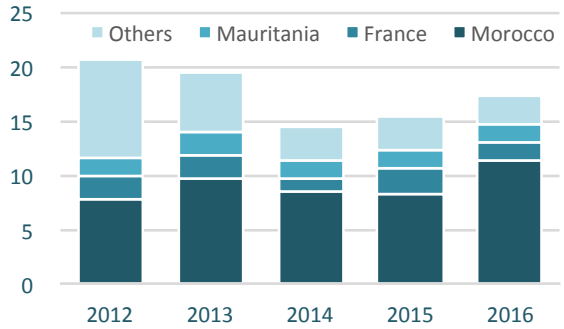


Source: *Japan Customs*

half of Japanese squid imports, reduced shipments by almost 6 percent to 17 400. Chile and Peru reduced shipments of squid to Japan by 19 percent and 37 percent respectively.

Spain | Imports | Cuttlefish
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Agencia Tributaria*

While imports into Japan declined, squid imports into Spain during the first half of 2016 increased by 5.9 percent to 52 400 tonnes. Though there were reduced amounts being shipped by the main supplier, the Falkland Islands (Malvinas) by -19 percent, the second largest supplier, India, shipped 11 500 tonnes, up by 46 percent compared with the same period in 2015. Of the other important suppliers, Morocco, China, the USA and New Zealand all increased exports of squid to Spain during the review period.

US imports of squid seem to be relatively stable. During the first six months of 2016, the USA imported 33 400 tonnes of squid compared with 33 500 tonnes during the same period in 2015. However, looking at developments over the past three to four years, US squid imports have been rising. In 2015, total US squid imports amounted to 72 150 tonnes compared with 66 500 tonnes in 2010.

Prices
Squid*: Italy

EUR/kg

*Whole, FAS, middle size, origin: South Africa
Source: *European Price Report*

In terms of cuttlefish, in Japan there have been only slight changes in the cuttlefish trade during the first half of the year. Japan imported slightly less, 5 900 tonnes in 2016 compared with 6 100 tonnes in 2015. Major suppliers included Thailand, Morocco and Viet Nam.

Spain registered a minor increase in cuttlefish imports, from 15 300 tonnes during the first half of 2015 to 17 300 tonnes during the same period in 2016 (+13 percent). The main suppliers to Spain were Morocco, France and Mauritania.

Prices

Squid prices had already started to climb earlier this year, but it now looks like they will increase further as the tight supply situation gets even more difficult. In Italy, the trade price of squid from South Africa rose from about €6.0 per kg to a bit over €7.0 per kg in September 2016. Indeed, the shortage of squid and the higher prices are benefitting South African suppliers, as prices paid to them have increased by over 25 percent since last year. At the same time, South Africa's landings seem to have stabilized at around 7 000—8 000 tonnes. In China, squid prices have already doubled, and are expected to go up further.

In contrast, octopus prices will probably remain more stable, as the supply situation has improved, with some slight increases in global landings.

Outlook

The supply situation for squid will become more difficult later this year, with considerably lower volumes landed. El Niño has already heavily affected the Peruvian and Chilean fisheries, and this of course directly affects the squid market, pushing prices for most products upwards. China's dramatic fall in squid supplies will most likely increase prices only further. For octopus, supplies are growing, so prices for these products are not expected to increase much.

TILAPIA

GLOBEFISH HIGHLIGHTS

Demand firm, prices remain relatively low

During the first half of 2016, approximately 170 000 tonnes of tilapia (whole, fillets and breaded) entered the international market.

A recent supply shortage in China this summer, could lead to prices firming in late 2016/early 2017.

Asia

Asia continues to easily be the largest supply source for tilapia. During the review period, approximately 150 000 tonnes of tilapia was exported from the region, which was comprised of 52 percent frozen fillets and 48 percent whole frozen tilapia. The top five producers in the region are China, Indonesia, Taiwan Province of China, Thailand and Malaysia.

Taiwan Province of China was the first country to pioneer tilapia production over ten years ago. For the first half of 2016, Taiwan Province of China's tilapia exports increased by 14 percent during the first six months of 2016 compared with the same period last year. About 62 percent of its exports consisted of frozen tilapia (mostly whole products) to the USA. The Middle East markets, namely Kuwait, the United Arab Emirates and Bahrain, have emerged as potential lucrative markets. Sashimi quality frozen fillets are exported to Japan fetching a high average price of US$11.60 per kg although the domestic market absorbs most of the production.

In India, the Middle East is an increasingly important market. Currently, about 90 percent of Indian tilapia exports head to these markets, with the United Arab Emirates, Saudi Arabia and Oman as the leading importers.

China

Chinese exports of frozen tilapia (by product and destination)

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
Frozen whole	47.7	59.1	60.7	59.5	57.2
Frozen fillets	76.5	71.1	70.3	68.7	66.8
Breaded fillets	26.6	31.2	32.3	40.0	44.1
Total	**150.8**	**161.4**	**163.3**	**168.2**	**168.1**

Source: *China Customs*

Exports of Chinese tilapia during the first half of 2016 remained overall more or less steady from the same period in 2015, though there were shifts in product categories. Exports of frozen fillets and whole frozen tilapia, which take up the largest share of trade, continued to decline, for January–June by 2.8 percent and 3.4 percent respectively compared with the same time period last year. Breaded tilapia fillet exports showed positive growth with Mexico, African markets and Israel absorbing more. Exports were significantly higher to Côte d'Ivoire, the third largest market after the USA and Mexico.

Chinese half-year prices in 2016 registered declines compared with the same time period in 2015. Average export prices for the review period fell by 12.3 percent for frozen fillets, 8.3 percent for breaded tilapia and 5 percent for whole frozen tilapia. However, with a supply shortage in China this summer due to a cold winter that reduced fingerling volumes, average export prices were pushed back up.

The USA retained its position as the single largest market for Chinese tilapia, though the market imported less when comparing the first half of 2016 with the same time period in 2015. African markets accounted for the second largest market for Chinese tilapia, absorbing nearly 44 700 tonnes. The Latin American markets took a 12.4 percent share of Chinese tilapia exports with Mexico consuming the largest share. Exports continue to increase to Iran which absorbed 8 400 tonnes of tilapia during this period, a significant 64 percent more compared with the same period last year.

USA

Total tilapia imports into the US market during the first half of 2016 fell year-on-year by 10 percent in

US imports of tilapia (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Fresh fillets	Honduras	2.5	3.8	5.3	4.8	4.9
	Colombia	1.2	1.9	1.9	2.5	2.6
	Costa Rica	1.2	3.5	2.9	2.6	2.5
	Others	3.6	4.9	3.4	3.5	3.1
	Subtotal	**8.5**	**14.1**	**13.5**	**13.4**	**13.1**
Whole frozen	China	12.4	10.8	9.5	12.3	12.4
	Taiwan PC	5.1	7.5	5.6	4.9	5.9
	Thailand	0.2	0.2	0.3	0.5	0.3
	Others	0.3	0.5	0.6	2.0	0.9
	Subtotal	**18.0**	**19.0**	**16.0**	**19.7**	**19.5**
Frozen fillets	China	71.3	56.5	64.8	70.0	59.9
	Indonesia	6.4	5.4	5.4	4.9	4.0
	Taiwan PC	0.8	0.7	0.5	0.6	0.8
	Others	2.3	1.3	1.7	2.4	2.5
	Subtotal	**80.8**	**63.9**	**72.4**	**77.9**	**67.2**
	Total	**107.3**	**97.0**	**101.9**	**111.0**	**99.8**

Source: *NMFS*

volume and 21 percent in value compared with the same period last year. Imports totaled about 100 500 tonnes worth US$404 600 million. Although there were increases in imports from Taiwan Province of China and Indonesia, this did not make up the difference.

Average import prices of frozen fillets during the period declined by 11 percent compared with a year ago. Demand for tilapia will likely pick up in the coming months when procurement for the holiday season and New Year begins.

Latin America

Honduras remains the largest Central American supplier, though its export value to the USA fell by 19 percent during the first half of the year.

The tilapia aquaculture industry is significantly growing in Brazil, where it is currently the second largest aquaculture industry. Its main producing state is Parana, which produces more than 25 percent of total domestic production. The sector is growing largely as a result of the efficient feed conversion ratio, which according to EMBRAPA, a Brazilian agricultural research entity, and CNA (the Confederation of Agriculture and Livestock of Brazil), is currently at 1:4. Tilapia demand continues to be strong in the domestic market and with the Brazilian real weakening against the US dollar there may be some new interest in exports. Some analysts predict that Brazil will become a leading producer of tilapia, in the long term competing with China in the frozen fillet market. According to a recent report by Rabobank, Brazil could grow its tilapia production by 10 percent per year, exceeding over 490 000 tonnes by 2020.

In Colombia, increased tilapia exports have led to tilapia supply shortages on the domestic market. Large producers generally prefer to export due to higher profitability, particularly with the devaluation of the Colombian peso against the US dollar. In turn, farmers producing red tilapia (the product preferred in the domestic market) have shifted production to black tilapia, which is less costly to grow, for export. As could be expected, the deficit in the red tilapia domestic supply has led to a price increase over the last year.

EU

For the first half of 2016, the market block imported 1 120 tonnes less tilapia from outside the EU, primarily due to lower supplies from China. In total, the EU-27 imported 12 300 tonnes of tilapia, 56 percent frozen fillets and 44 percent whole frozen. Despite lower imports from China, there were increases in supplies of premium-quality frozen fillets from Indonesia, Taiwan Province of China and Thailand. Import prices for these premium fillets during this period ranged from US$6.20 to 13.0 per kg.

Outlook

The decline in traditional demand from the USA and EU markets continues, but demand remains firm elsewhere. US demand may possibly pick up in the coming months for the holiday season and New Year. In Asia, Latin America and Africa, tilapia continues to be popular although prices remain relatively low. Prices worldwide may improve with the supply shortage from China, however this is contingent on US demand improving and African markets continuing their import growth.

PANGASIUS

GLOBEFISH HIGHLIGHTS

Good demand amidst tight supplies

Approximately 270 000 tonnes of frozen pangasius (both whole and frozen fillets) entered 45 countries during the first half of the year, an 8 percent increase in volume compared with the same period in 2015. Demand for frozen pangasius is the strongest of any product category. The abundance of frozen pangasius fillets in the marketplace has contributed to the popularity of fillet consumption in Asia, where in general consumers' preference have been more for whole fish.

Viet Nam

Viet Nam is by far the main producer of pangasius in the world. Severe drought in Viet Nam has affected most crops in the country, including pangasius. Supplies have declined and as a result prices were reported to have increased. Industry sources report that the supply situation is now improving.

During January–June 2016, Vietnamese pangasius exports reached US$790.2 million, up 5.4 percent year-on-year. Exports to the USA, Hong Kong SAR and Brazil all experienced growth in value while exports to the EU, Association of Southeast Asian Nations (ASEAN), Mexico, Colombia and Saudi Arabia saw a decline.

Vietnamese pangasius exports experienced significant growth to two of its main markets in the first half of 2016. Indeed, to the USA, export value reached US$106.5 million (+31.4 percent) and to China totalled US$72.5 million (+80.6 percent). The export value to ASEAN for the first half of the year totalled US$67.9 million, down 1.9 percent from the same period last year. Thailand remains a major importer of Vietnamese pangasius with stable export values reported.

USA

In the USA, total frozen catfish import volumes strengthened marginally by 1.2 percent during the first half of 2016. Although average import prices weakened by about 9 percent, industry sources report that current prices are increasing due to a supply shortage in the US market. Myanmar continues to play a new supply role to the US market, though this is not reflected in the figure as volumes remain small for the time being. Also interesting although not visible in the figure is the increase of fresh catfish imports into the market, some 200 tonnes from China.

US imports of fresh and frozen catfish fillets (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Fillets	Viet Nam	47.2	48.9	45.1	54.8	64.3
	China	2.4	3.6	4.2	3.3	2.5
	Thailand	0.0	0.0	0.0	0.0	0.0
	Others	0.1	0.0	0.0	0.1	0.3
	Total	**49.7**	**52.5**	**49.3**	**58.2**	**67.1**

Source: NMFS

EU

Year-on-year imports of pangasius (whole and frozen) into the EU did not improve during the first half of 2016. Rather, there was a marginal decline of 1.1 percent, to total 54 200 tonnes. Whole frozen pangasius imports did show growth however, with Viet Nam, Thailand and Myanmar supplying more during January to June this year.

Within the EU, Spain and the UK are the largest markets; imports of pangasius fillets increased into both countries during the reporting periods.

Asia

Asia continues to be the largest market for pangasius for all forms; live, fresh, frozen whole and frozen fillets. Approximately 50 000 tonnes of pangasius (whole and fillets) entered Asian markets during the first half of this year. Nearly 90 percent was comprised of frozen fillets as the product category has established strong footing in the Asian market due to its convenience and price. Thailand, China, Singapore and Malaysia were the leading markets during the review period. In markets such as India, the catering sector is increasingly absorbing panagasius fillets. During the review period, India imported nearly 2 500 tonnes of frozen pangasius fillets from Viet Nam.

Hong Kong SAR imported 20 500 tonnes of frozen fish during the first six months of 2016, which is 3.2 percent up in volume and 36 percent up in value from the same period in 2015. Frozen fillet imports comprise most of the freshwater species imported, namely tilapia and pangasius. Viet Nam is the leading supplier of frozen fillets to this market accounting for a 64 percent share in volume.

Latin America

The Latin American region is the largest import market for pangasius, absorbing nearly 65 000 tonnes (whole and frozen). Mexico and Brazil are the most significant individual markets and together account for 80 percent of the region's pangasius imports.

Outlook

There are mixed reports on the current supply and price situation. However, demand seems firm in the Latin American and Asian markets, which together constitute almost half of global demand. If supplies begin to improve from Viet Nam, prices may decline, although this will also be dependent on demand in the US market.

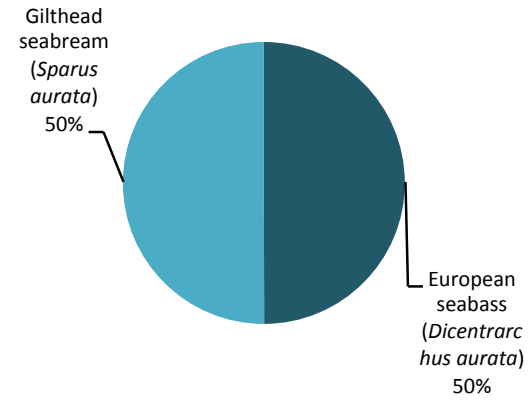
SEABASS & SEABREAM

GLOBEFISH HIGHLIGHTS

Bass and bream industry need demand growth to absorb expected production boost

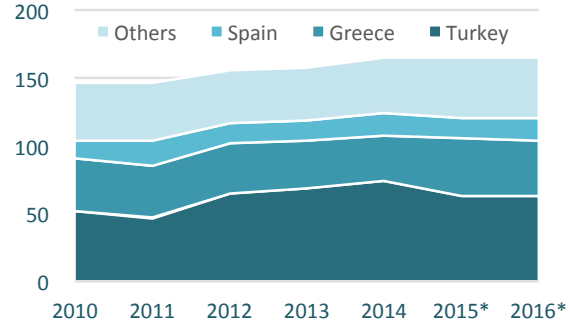
After a year of relief in the form of good prices in 2015, this year the farmed seabass and seabream sector have had to deal with a price decline as supply out of most major producing countries increased in 2016. Although exporters have been able to develop a range of new markets in North America and the Middle East over the last few years, various factors are negatively affecting demand in important markets such as the UK and the Russian Federation. These factors are limiting the number of markets capable of absorbing further supply growth now on the horizon.

Bass and bream production (2014)



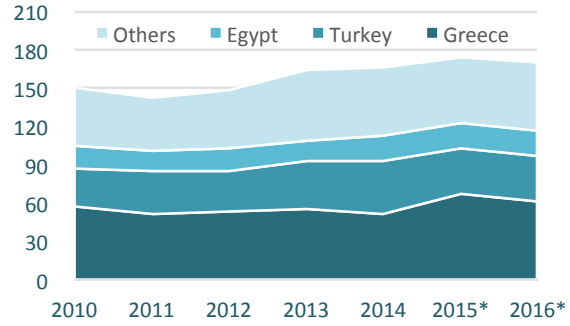
Source: ***FAO***

World | Production | Seabass (Dicentrarchus labrax)
Unit: 1 000 tonnes



Source: *Eurostat and Custom,* (*) Estimates

World | Production | Seabream (Sparus aurata)
Unit: 1 000 tonnes



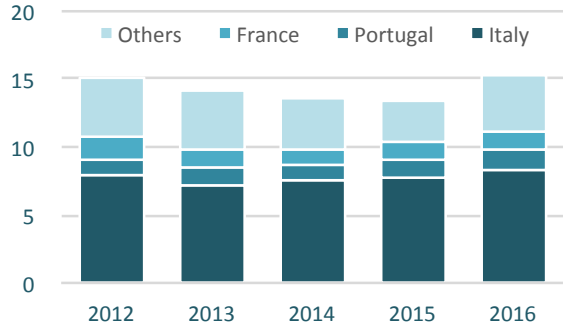
Source: *Eurostat and Customs,* (*) Estimate

Greece

Prices for 300–450 g Greek bass on the Italian market reached its 2016 peak of €5.40 per kg in May, while prices for the same-sized bream hit their peak at the same price level in April. These represent decreases of €0.40 and €0.30 respectively from the maximum levels reached in 2015. In September, the equivalent declines compared with 2015 were €0.10 for bass and €0.80 for bream. This reduction is a consequence of the downward pressure of higher supply volumes coming out of Greece, Turkey and Spain. However, these lower mid-year price peaks were offset somewhat by relatively higher early-year prices, and in fact average Greek export prices in the first half of 2016 were flat year-on-year for bass and only 4 percent down for bream.

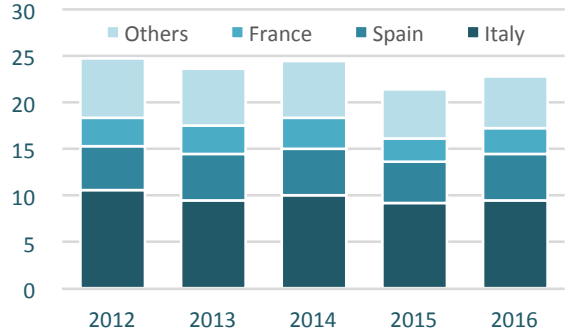
Despite the relatively small magnitude of the price fall, profit margins of Greek aquaculture companies –which in many cases had crept back into the black last year – fell back again in 2016. This demonstrates the sensitivity of a still fragile Greek industry to even minor decreases in price, and emphasizes the importance of innovations at the farm level that can drive costs down. Consolidation within the sectors, such as the absorption of Greek aquaculture Dias by another, Selonda, will also help to achieve cost reduction through economies of scale. In the meantime, however, increased production volumes will only benefit the Greek sector if demand is strong enough to support prices at sustainable levels.

Greece | Exports | Seabass | Fresh
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: *Eurostat*

Greece | Exports | Seabream | Fresh
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



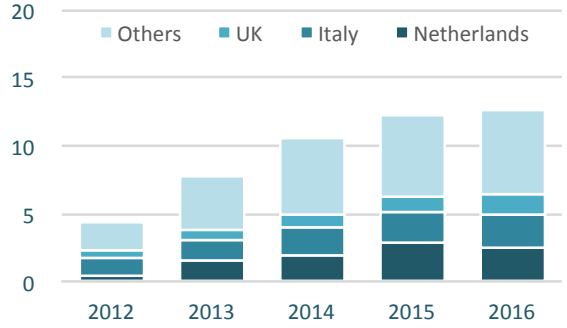
Source: *Eurostat*

On the positive side, demand appears to be strong in the major European markets for Greek exporters, of which the three largest are Italy, France and Portugal. This is particularly true in the case of bass, and supply of bass is increasing significantly faster than that of bream in response to this trend. Demand for both species was also boosted by the warm summer in 2016, as consumption periods for bass and bream are highly seasonal and linked to the level of activity in the restaurant industry. Greek exporters continue to largely confine themselves to traditional European markets however, and while this brings benefits when economic conditions are stable and summers are good, it nevertheless increases inherent risk through lack of diversification.

Turkey

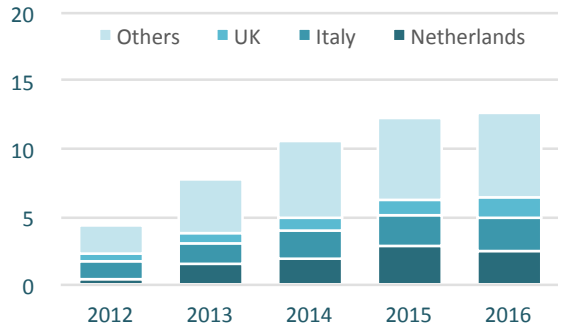
Despite the advantage of a weak currency, Turkish exporters have not been immune to price falls, and a downward price trend for Turkish bream continued in the third quarter of 2016, resulting in prices only sufficient to cover production costs. Regardless of size, mean ex-farm prices of (ice-packed) of bream were down to US$4.06 and US$4.00 per kg in July and September respectively. Compared to mean prices in June, this translates into nearly an 8.9–10.3 percent decline. The situation was better for bass during this period. Mean ex-farm prices bass in September remained flat ranging from US$4.4 (200–300 g) to US$7.10 (600–800 g) per kg, which left some profit margin for producers.

Turkey | Exports | Seabass | Fresh
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: *State Institute of Statistics*

Turkey | Exports | Seabass | Fresh
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: *State Institute of Statistics*

In order to control fouling (small mussels) in the large bass cages (50 m diameter), bream are stocked with bass in large-scale farms. The bream to bass initial stocking ratio goes up to a maximum of about 1:9, with the bream gazing on the small mussels on the nets, thereby helping to extend its use. Bream is harvested together with bass mainly in the third quarter of the year, resulting in additional supply during July–September, pushing prices further downward.

Looking ahead to 2017, a major concern for Turkish producers is the expected excess of bream juveniles stocked in Greek farms. According to industry sources, this oversupply could have a negative impact on prices, both at the ex-farm and retail levels. Turkish producers are attempting to address this challenge by focusing on sales of small-sized bream. The core idea here is that small fish would mean lower production costs but more importantly lower volumes in overall bream production. In this way Turkish producers hope to hold bream supply at the 2016 level and prevent further price declines due to possible oversupply.

Italy

With flat domestic production and strengthening demand being driven by slowly increasing private consumption, Italy has been steadily increasing its import volumes of bass and bream over the last few years even as prices have increased. Relative proportions of bass and bream have remained approximately equal but one notable trend is the increasing share of supply sourced from Turkey, offset by decreasing imports from Greece. This development is the result of both the greater availability and lower prices of Turkish fish, together with the added advantage of the euro's purchasing power versus the Turkish lira.

Italian imports of fresh seabram and seabass

		January-June				
		2011	2012	2013	2014	2015
		(1 000 tonnes)				
Seabream	Greece	9.4	8.9	8.2	7.9	7.5
	Turkey	0.9	1.5	1.6	2.4	3.7
	Croatia	0.4	0.5	0.6	1.0	0.8
	Others	1.7	1.4	1.2	1.6	1.5
	Subtotal	**12.4**	**12.3**	**11.6**	**12.9**	**13.5**
Seabass	Greece	7.3	7.0	6.9	7.1	7.1
	Turkey	1.2	1.5	1.8	2.3	2.3
	Croatia	0.6	0.6	0.7	1.2	1.4
	Others	0.9	1.0	0.6	1.0	1.2
	Subtotal	**10.0**	**10.1**	**10.0**	**11.6**	**12.0**
	Total	**22.4**	**22.4**	**21.6**	**24.5**	**25.5**

Source: *ISTAT*

France

French consumers differ from their Italian counterparts in their strong preference for bass and bream that is either domestically produced or grown as close to home as possible. This largely excludes Turkish product, despite the lower prices, and buyers instead turn to Greek or increasingly Spanish fish. Similarly to other major European economies, France has returned to slow but steady growth, which should boost demand in the long-term. This year, import volumes are back to 2014 levels after a dip last year.

Spain

Stronger demand from its major European markets, a more active domestic market and continuing investment in the Spanish bass and bream farming sector are all reasons for a positive outlook in Spain. However, in line with prevailing trend, prices at Spanish wholesale markets fell back from good early year levels and hit lower mid-year peaks this year. The balance between supply and demand will potentially be upset if production in the Mediterranean increases too quickly.

Other markets

According to data from the Russian Federal Customs Service, as of September 2016, Russian Federation imports of fresh bass and bream amounted to 1 280 tonnes and 1 150 tonnes respectively. Turkey was responsible for 99 percent of the supply, while Morocco and Tunisia delivered the remainder. Russian Federation volumes have fallen significantly in the last two years as the depressed economy negatively impacts demand for seafood.

In the UK, the Brexit vote has resulted in a significant weakening of the British pound, which will make imports more expensive, thereby reducing demand for farmed bass and bream from the Mediterranean and likely boosting demand for domestic wild-caught bass. In Germany, meanwhile, demand for bass and bream is strong and growing, with import volumes steadily increasing each year.

Outlook

In the short term, bass and bream prices can be expected to continue declining for the remainder of the year, before beginning the uptrend again in early 2017, as per the typical pattern. In the longer term, however, producers are concerned with the average price received for their total output, and this is a function of supply and demand. After three years of low growth, total juvenile production has increased by some 18 percent in 2016, the majority of which will be market ready in approximately

two years, depending on the target size. At present levels of demand, an increase in supply of this magnitude would almost certainly depress prices to an unsustainable level for the sector as a whole. Thus, if the projected increase is to be absorbed smoothly, over the next two years there will need to be a concerted industry-wide effort to develop new markets, both geographically and in terms of new products, as well as to reduce production costs at the farm level through technological innovation and consolidation.

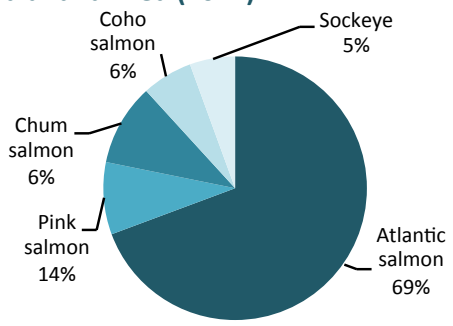
SALMON

GLOBEFISH HIGHLIGHTS

Post-summer harvests in Norway bring only temporary relief from extreme high prices

As biomasses in Norwegian farms pushed regulatory limits in late summer, markets have had to absorb relatively larger volumes of farmed salmon with the prevailing exceptionally high prices falling somewhat as a result. The global supply situation remains extremely tight, however, with reduced production forecasts for both Chile and Norway, and in the longer term the new price plateau is set to stay.

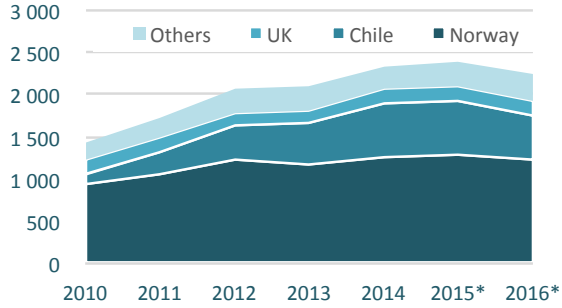
Salmon production by species, both wild and farmed (2014)



Source: ***FAO***

World | Salmon | Production | Farmed
Top three producers

Unit: 1 000 tonnes



Source: *FAO* (until 2014) (*) Estimate

Supply

Norway

According to figures from Seafood Norway Production Forum released in August, farmed Atlantic salmon production in Norway fell by 45 000 tonnes, or 9 percent in the first seven months of 2016, with an overall drop of 5 percent forecast for the year. This situation has seen export prices for fresh whole Atlantics, as measured by the NASDAQ salmon index, supported above NKr50 per kg since the beginning of the year, reaching multiple peaks above NKr75 per kg in mid-year. Seasonal post-summer harvests caused a spike in Norwegian supply volumes, which is the result of trying to keep biomasses below regulatory limits after summer growth in the pens. This peak in supplies pushed down prices to NKr52 per kg in mid-September, but this is still some NKr10 above the same period in

Norwegian exports of salmon (by product)

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
Fresh	384.2	359.6	389.7	414.8	379.2
Frozen	24.3	16.3	17.9	16.6	14.3
Fresh fillets	31.4	32.5	35.5	36.1	41.9
Frozen fillets	22.3	20.2	20.6	22.9	21.7
Total	**463.2**	**429.3**	**464.6**	**491.2**	**457.8**

Source: *Norwegian Seafood Council*

2015, reflecting the significantly larger gap between supply and demand this year.

In line with the reduction in production volumes, Norwegian exports were also down in the first six months of 2016, to 458 000 tonnes, or 6.8 percent lower than the same period last year. High prices more than offset lower volumes, however, and total value exported was up 29 percent for the same period, to NKr27.9 billion (EUR3.3 billion). These revenues have translated into bumper profits for many Norwegian aquaculture companies, although price volatility and high raw material costs have squeezed the margins of supply chain intermediaries. Exporters, however, have been protected to an extent from passing on high costs to buyers by the weakening Norwegian krone over the last few years, now down by approximately 11 percent since the beginning of 2014.

The major markets for Norwegian salmon have remained largely the same for a number of years, with Poland the number one destination. About 70 percent of Polish exports are processed and re-exported, underlining the importance of the Polish processing industry, particularly as a supplier of smoked salmon to Germany. Norwegian exports to emerging markets in Southeast Asia continue to grow, as does the proportion of total production directed to the US market, which is supplied with a combination of fresh whole Atlantics and an increasing quantity of fillets that compete directly with Chilean product.

As per the typical seasonal pattern, salmon prices can be expected to rise again going into the last quarter of the year as supply tightens and end-of-year demand begins to put upward pressure on prices. In fact, forward prices at FishPool put the weighted average price for fresh whole Atlantics above NKr60 per kg from November until mid-2017 at least.

Norwegian authorities have introduced a new flexible Maximum Allowed Biomass rule, which Nordea analysts predict will cause a 3–5 percent increase in Norwegian production next year. However, continuing low supply from other sources and strong, growing demand in markets across the world will likely prevent any significant reduction in the current price level.

Norwegian Trout

The extent and speed of the recovery of the Norwegian farmed trout industry following the introduction of the Russian Federation trade embargo is a seafood trade story that deserves more attention. Export revenues in the first six months of 2016 were more than double those recorded in the same period last year, at NKr1.83 billion (US$217.4 million). This is 58 percent higher even than the same period in 2014, prior to the introduction of the embargo. Volumes were up 80 percent for the same period with booming demand from a wide range of markets in Eastern Europe, Asia and the USA, allowing for the absorption of higher volumes at higher prices.

These figures reflect the success of the industry's marketing efforts and investment into developing new markets such as Japan, Belarus, the USA, Poland, Thailand and Ukraine, following the departure of what was by far the top destination for farmed Norwegian trout.

Chile

The Chilean salmon industry, which was significantly affected by an algae bloom during the first half of 2016, is now trying to control production through new regulations. These regulations are still being challenged from some quarters, but the current rules limit production growth to 3 percent per year

Chilean exports of salmon (by product and destination)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Frozen	Japan	70.4	64.1	53.5	50.2	43.5
	Russian Fed.	1.2	15.7	13.9	23.5	21.3
	USA	7.1	14.5	11.5	14.8	18.1
	Others	29.5	57.6	73.3	60.2	69.9
	Subtotal	**108.2**	**152.0**	**152.2**	**148.6**	**152.9**
Fresh	USA	36.1	44.2	49.3	50.2	53.0
	Brazil	23.7	27.5	35.8	40.4	34.0
	Argentina	2.0	2.9	2.9	3.9	3.7
	Others	2.1	2.0	3.7	4.2	6.7
	Subtotal	**63.9**	**76.6**	**91.8**	**98.7**	**97.4**
	Total	**175.9**	**231.4**	**246.1**	**250.0**	**251.8**

Source: *Chile Customs* (small shares of product types like canned and salted not included)

in an attempt to lessen the impacts of worldwide fluctuating prices and unstable production.

According to some estimates, this 3 percent limit should lead to a 25 percent reduction in salmon production for 2016 to stabilize at around 650 000 tonnes. This volume is far below Chile's record production year in 2014, when production totaled nearly 955 200 tonnes. However, this reduction estimate is not agreed on by all. One expert in the sector claims that with the new regulations, Chile could produce at most 400 000 tonnes. Other analysts note that though production will not reach 650 000 tonnes, they predict that until 2018 supply will be more limited at around 500 000 tonnes.

Adding on to the controversial forecasts is the fact that stakeholders have not agreed on the extent of the regulations. Marine Harvest Chile announced on 26 July that their partnership with SalmonChile, a union of Chilean salmon producers and suppliers, will end as a result of their disagreeing on the stringency of regulations. Marine Harvest CEO noted that they have been asking for stricter regulations in the Chilean salmon farming industry for some time and can "only conclude that we do not agree on the way forward for the Chilean industry. Therefore, it makes sense that we end our participation as a partner. Similarly, I am disappointed in the way SalmonChile handled the crisis after the algae bloom earlier this year".

This partnership is responsible for nearly 70 percent of the production of salmonids in Chile, so its dissolution could have a notable effect on production. The company says it will continue to work to achieve more rigorous regulations. "We want to remain contributing to the salmon industry. We are willing to maintain a broad collaboration with other actors, because I'm sure there are other companies that also recognize the need for more stringent, effective and predictable regulations" he said.

Impacts from the algae bloom in March continue. Although some areas in Chile were not affected, they still suffered a significant drop in sales due to general consumer distrust. Authorities have installed control devices to ensure that products have proper certification and do not jeopardize public health, though continued promotion of certified salmon's safety is needed.

UK

Scottish farmed salmon production is expected to rise 3.5 percent this year, to 177 900 tonnes. Exports of out the UK bounced back this year after a drop in production in 2015, with an increasing proportion headed for France where it has a positive image amongst consumers. The severe depreciation of the British currency following the referendum vote is also beneficial for exporters, making Scottish salmon cheaper for foreign buyers. This may help to reverse the ongoing decline in exports to the USA where competing Canadian producers have been increasing their share of the market. However, due to new regulations introduced by the National Oceanic and Atmospheric Administration (NOAA), Scottish producers must work to reduce the number of seals killed in culls to zero by 2022.

UK exports of salmon (by product and destination)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Fresh	USA	16.5	17.4	22.9	14.6	13.0
	France	8.1	7.0	11.4	12.7	11.4
	China	2.8	4.1	7.0	4.5	4.7
	Others	10.4	10.6	10.2	7.3	8.8
	Subtotal	**37.8**	**39.1**	**51.5**	**39.1**	**37.9**
Frozen	France	0.7	0.5	0.8	0.6	3.8
	Viet Nam	0.1	0.0	0.1	0.3	1.9
	Ireland	0.0	0.0	0.0	0.2	1.1
	Others	3.3	2.5	2.9	2.2	5.4
	Subtotal	**4.1**	**3.0**	**3.8**	**3.3**	**12.2**
	Total	**42.7**	**42.9**	**56**	**43.7**	**51.3**

Source: *Her Majesty's Revenue & Customs*

In contrast to exporters, the weakening of the British pound is not good news for importers. The UK imports almost as much salmon as it exports, primarily from the Faroe Islands and Norwegian salmon through Sweden, although domestically produced fish now looks relatively more appealing to buyers. The effects have yet to be reflected in reported import volumes, however, and volumes were up in the first half of 2016 even as prices rose.

Markets

As salmon prices continue to soar, it is worth noting that the full impact of the current supply shortfall is in fact being mitigated by economic declines and weaker demand in what were previously the largest emerging markets for salmon. The economic struggles of Brazil, and the associated high inflation and unemployment, has certainly negatively impacted demand for salmon over the last two years, although a combination of reduced Chilean production and the influx of large numbers of tourists for the olympics temporarily pushed prices and total import value up this year.

In the Russian Federation, meanwhile, imports of salmon have declined dramatically since the introduction of the trade ban in 2014, as even suppliers not covered by the ban have seen demand wane in the face of economic recession and spiking inflation. China, although not experiencing economic

Russian Federation imports of salmon (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Fresh	Faroe Islands	2.4	0.3	0.9	8.2	6.8
	Norway	57.4	45.2	38.7	0.0	0.0
	Others	0.1	0.0	0.0	0.0	0.0
	Subtotal	**59.9**	**45.5**	**39.6**	**8.2**	**6.8**
Frozen	Chile	1.0	13.6	13.9	20.9	20.6
	Faroe Islands	0.0	0.0	0.0	1.8	1.3
	Norway	2.1	2.3	2.6	0.1	0.3
	Others	7.1	9.0	9.7	0.5	0.2
	Subtotal	**10.2**	**24.9**	**26.2**	**23.3**	**22.4**
	Total	**70.1**	**70.4**	**66.0**	**32.2**	**30.0**

Source: *Federal Customs Service of Russia (small shares of product types like canned and salted not included)*

difficulties to the same extent, has also seen economic growth slow somewhat and imports of increasingly expensive farmed Atlantics have fallen this year. Given that the scope for increased global production is limited, the return to previous rates of demand growth in these three countries in the future can be expected to exert considerably more upward pressure on what are already considered extremely high prices.

France

Even as average import prices of fresh whole Atlantics approach €7 per kg, French demand for salmon remains largely unabated. Increasing import volumes even as the availability of fish is reduced, French buyers are looking for product wherever they can find it, supplementing Norwegian and Scottish fish with imports from Chile and China.

French imports of salmon (by product)

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
Fresh whole	54.8	49.2	46.9	47.8	52.4
Fresh fillets	8.0	9.5	8.4	8.9	7.4
Frozen fillets	8.9	11.1	11.3	9.0	11.1
Smoked	3.9	3.9	3.2	3.6	3.4
Total	**78.2**	**76.1**	**71.9**	**71.9**	**76.1**

Source: *DNSCE* (small shares of product type like canned and salted not included)

The image of farmed salmon, particularly of Norwegian origin, appears to be improving amongst consumers, helped by the increasing quantity of Aquaculture Stewardship Council (ASC) certified farmed salmon appearing on French supermarket shelves.

Germany

As in France, German demand for salmon is still firm despite the current price level, although the growth of what was a previously rapidly expanding fresh salmon segment has slowed. Interest in the traditionally popular smoked salmon product remains strong, with the market supplied by Polish processors. Salmon consumption overall is on the rise, driven by discount retailers, and continuing product innovation focusing on convenience, more modern branding and increasing use of modified atmosphere packaging. Market research recently conducted by the Fisch-Informationszentrum e. V (FIZ) shows salmon as the most consumed seafood product in Germany for the second consecutive year.

German imports of salmon (by product)

	January-June				
	2012	2013	2014	2015	2016
	(1 000 tonnes)				
Fresh	21.4	20.5	31.3	28.4	27.5
Frozen	1.6	2.6	3.5	2.3	2.9
Smoked	15.9	18.4	17.7	19.4	21.3
Fresh fillets	3.6	4.6	5.1	7.0	7.3
Frozen fillets	12.9	15.8	18.0	15.2	17.4
Total	**59.7**	**70.7**	**83.2**	**78.6**	**83.9**

Source: Germany Customs (small shares of product types like canned and salted not included)

USA

The USA imported 181 000 tonnes of salmon during the first half of 2016 worth US$1 525 million, demonstrating year-on-year growth of 5.2 percent in volume and 7.6 percent in value. Chile continues to be the USA's main salmon supplier, after exporting 69 600 tonnes during January–June 2016, which was an increase of 7.7 percent compared with the same time period last year. In value terms, an increase of 5.4 percent was registered. Canada remains the second largest supplier to the USA, exporting 49 400 tonnes worth US$363.5 million during the reporting period. For US exports of salmon, there was an increase of 11 percent in volume and 1.8 percent in value.

US imports of salmon (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Fresh fillets	Chile	29.5	42.5	48.3	48.0	49.7
	Norway	2.0	2.3	5.7	7.5	10.3
	Canada	1.8	3.2	2.0	3.1	4.7
	Others	5.1	5.9	7.7	5.3	6.3
	Subtotal	**38.4**	**53.9**	**63.7**	**63.9**	**71**
Frozen fillets	China	15.0	18.3	20.0	18.2	17.1
	Chile	8.2	13.7	15.3	14.3	15.6
	Norway	4.1	2.9	4.1	4.7	3.5
	Others	1.7	1.3	11.7	1.9	2.2
	Subtotal	**29**	**36.2**	**51.1**	**39.1**	**38.4**
Smoked	Netherlands	0.8	0.9	1.1	1.3	0.7
	Greece	0.0	0.0	0.0	0.1	0.5
	Chile	1.3	1.0	0.5	0.9	0.3
	Others	0.5	0.6	0.7	0.8	0.8
	Subtotal	**2.6**	**2.5**	**2.3**	**3.1**	**2.3**
Frozen whole	Chile	0.3	0.7	1.5	0.5	1.9
	China	0.1	0.0	0.0	0.2	1.6
	Canada	0.9	0.6	0.4	1.0	0.9
	Others	0.9	0.5	0.6	0.7	0.8
	Subtotal	**2.2**	**1.8**	**2.5**	**2.4**	**5.2**
Fresh whole	Canada	43.5	36.6	20.7	42.0	42.2
	Faroe Islands	2.5	4.7	5.9	4.4	5.7
	Norway	1.0	2.0	1.9	6.7	4.9
	Others	6.4	5.0	10.6	5.1	6.6
	Subtotal	**53.4**	**48.3**	**39.1**	**58.2**	**59.4**
	Total	**137.1**	**149.1**	**154.9**	**172.0**	**181.0**

Source: *NMFS*

Japan

Even with a significantly weaker yen in early 2016, Japan has increased its imports of salmon so far this year, particularly for frozen farmed coho from Chile and wild sockeye salmon from the Russian Federation and Alaska, USA. An 8 percent increase in farmed coho volumes from Chile has been recorded in Japanese trade statistics in spite of the loss of some 3.5 million coho in the algal bloom earlier this year and in contrast to the 18 percent drop in export volumes destined for Japan as reported by Chile. It is likely that the difference is accounted for by inventory holdings imported in the first quarter of 2016 as coho supply has tightened since the second quarter and volumes in the second half of the year will be substantially lower, potentially driving up supplies from their currently relatively low levels.

Japanese imports of salmon (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Fresh	Norway	13.0	9.5	8.6	9.3	8.7
	Canada	0.1	0.9	0.2	0.2	1.0
	Australia	0.6	0.5	0.2	0.4	0.4
	Others	0.7	0.6	0.7	0.5	0.5
	Subtotal	**14.4**	**11.5**	**9.7**	**10.4**	**10.6**
Frozen	Chile	86.1	78.8	55.8	60.2	64.5
	Russian Fed.	2.8	7.2	4.6	3.2	6.2
	USA	2.2	0.9	1.0	3.4	2.9
	Others	1.1	2.4	0.4	1.0	0.7
	Subtotal	**92.2**	**89.3**	**61.8**	**67.8**	**74.3**
	Total	**116.6**	**110.0**	**88.1**	**93.2**	**100.6**

Source: *Japan Customs* (total including fillets)

Outlook

With a sharp drop in production forecasts for Chile and a 5 percent decrease expected in Norway this year, farmed salmon prices will continue to be supported at high levels for the foreseeable future. Even with the expected return to supply growth next year, supplies will likely be insufficient to bring Norwegian prices down below NKr50 per kg and, in fact, forward prices for salmon reported by FishPool are now above that level up until the most advanced contracts in 2018. Prices for Chilean farmed Atlantics will also benefit, and as of week 36 this year fillet prices on SalmonEx have already climbed to levels 55 percent above the same week last year.

Norwegian limits on volume growth – themselves subject to sea lice management conditions – combined with new Chilean regulations restricting farmed production growth to 3 percent a year, mean that global demand is growing faster than supply, with price hikes the inevitable consequence. Industry analysts now feel that only an unforeseen event can reverse the upward trend. In the wild salmon market, the supply situation is better, with good sockeye catches compensating for poor pink harvests. The markets for these species are largely distinct, however, and low pink supply is set to drive up prices for canned salmon.

SMALL PELAGICS

GLOBEFISH HIGHLIGHTS

Supply outlook improving

With recent research indicating that North Atlantic mackerel and herring stocks are improving, the outlook for 2017 appears to be strong. In contrast, for South American anchovy, lower catches are expected for the remainder of 2016 although forecasts are somewhat mixed.

Mackerel

The international summer survey for mackerel in the North Atlantic gave some very encouraging results this year. The so-called stock index was the highest since this research was initiated in 2007, and was set at 10.2 million tonnes, which is 2.5 million tonnes higher than last year. The main reason for the high stock levels appears to be the very strong 2014 class, which now is beginning to show itself in the research results. According to the head of the research team at the Norwegian Institute of Marine Research, the advice given by researchers to set the quotas low has not been very accurate in previous years. The findings of this year's research may result in higher quotas in 2017.

Also in Norway, research vessels have registered a significant amount of large and fat mackerel during their surveys this summer. The average size of the mackerel caught in the area southeast of Jan Mayen Island had increased from 380 g to 530 g. In Iceland, vessels also report good mackerel fishing along with large sizes. The average size of mackerel caught in the Icelandic waters was somewhat lower (388 g) than that around Jan Mayen.

There are concerns about the stocks of chub mackerel in the northern Pacific Ocean. In an effort to improve recruitment and stabilize the stocks, the six members of the North Pacific Fisheries Commission (Japan, Canada, China, Russian Federation, Republic of Korea and Taiwan Province of China) recently agreed to curb chub mackerel catches in the region. Particularly Chinese fishing efforts have been increasing in later years, as the number of Chinese vessels going for chub mackerel increased from 20 to 80 in a short time. According to *The Japan Times*, Chinese landings of chub mackerel increased from 24 000 tonnes in 2014 to 134 000 tonnes in 2015.

Herring

As with mackerel, researchers are optimistic about the North Sea herring stocks. According to representatives of the Institute of Marine Research in Bergen, this year's surveys show that the 2013 class of NVG (Norwegian spring-spawning) herring is in good shape, and researchers are excited about following this class in the years to come. However, so far, researchers are reluctant to suggest quota advice.

In the USA, herring is scarcer, and this is worrying the lobster industry, which needs the herring for bait. Fishers on the Northeast coast are complaining that the summer quota will be caught too quickly, and leave little or no herring for the lobster industry.

Anchovy and sardines

According to the Instituto del Mar del Peru (IMARPE), Peru's anchovy biomass is in good shape, and things therefore look positive for the next fishing season. During the last survey performed by IMARPE, 7.3 million tonnes of fish was registered, with this and other indicators demonstrating a healthy stock.

El Niño has significantly disrupted the anchovy season in Peru, and landings are well below normal. According to estimates, landings this year will drop 20 percent to about 2 million tonnes. The total amount processed as of the end of August amounted to only 72 000 tonnes, compared with 293 000 tonnes at the same time last year. Low landings are due to the fact that Peru decided to close its first anchovy season on 27 July – even though only less than half the quota had been landed – as the stocks had entered into their reproductive stage. Chile decided to close its season on 14 July for the same reason. However, Chile had by then landed about 70 percent of the quota. The fishery could remain closed through October and November.

Operators in Peru are optimistic about the second season in the centre north fishing area. However, this second season in the northern and central area of Peru may be delayed, with the final decision dependent on the recommendations of IMARPE. Preliminary studies indicate that sea temperatures are cooling at a slower pace than usual and there is a delay in spawning.

El Niño has prompted Peruvian authorities to allow industrial anchovy fishing to move closer to shore this year. While previously the vessels could not operate closer than ten nautical miles from shore, they are now allowed to operate as close as five nautical miles from shore. According to the Ministry of Production, El Niño forces shoals of anchovy to swim closer to shore. The area inside of the five-mile limit is reserved for small-scale fishers.

Market and demand

At the Nordea/Norwegian Seafood Council market seminar during Nor-Fishing in August, representatives of the pelagic industry in Norway called for more consumer orientation in the pelagic sector. The industry needs to develop new and consumer-attractive products as most of the Norwegian mackerel and herring production is exported as round frozen, thus adding no or very little value to the raw material. According to some analysts, an increase in fillet production would help the mackerel industry grow.

Overall demand for mackerel appears strong with prices higher than a year ago. The Nigerian market particularly seems to be on the move again, as Nigerian authorities have relaxed its embargo on import quotas allowing the Nigerian Niara to float against the US dollar.

The Russian Federation market is mainly supplied by the Faroe Islands and Greenland, as these countries are not subject to the Russian Federation import ban.

Trade

Major pelagic exporters (Norway, the Netherlands and China) registered increases in their exported volumes during the first half of 2016. Norway saw a significant increase (+35.7 percent by volume), and China also had a large increase (+28.4 percent by volume), while the Netherlands registered just a marginal increase (+3.7 per cent).

Despite these increases, the largest market for Norwegian mackerel – Nigeria – imported less during this period even though authorities have relaxed import regulations somewhat. Demand on the Nigerian market will likely remain strong in the long-term.

Russian Federation imports of whole frozen mackerel increased during the first half of 2016 by some 46.5 percent, to 29 600 tonnes. Imports from western countries such as Norway, the UK and the EU are still

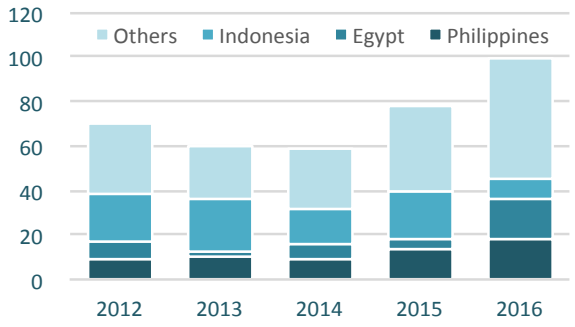
Norwegian exports of small pelagics (by product and destination)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Frozen mackerel	Nigeria	3.9	1.1	11.1	14.8	12.0
	Republic of Kore	1.9	2.3	2.7	5.6	10.0
	China	15.0	9.8	13.0	7.7	9.7
	Others	56.4	45.8	43.0	45.0	67.6
	Subtotal	**77.1**	**59.1**	**69.9**	**73.2**	**99.3**
Frozen herring	Ukraine	28.3	15.7	13.5	6.9	18.5
	Egypt	14.2	9.4	2.8	9.6	12.0
	Netherlands	7.5	7.9	9.0	7.4	7.2
	Others	69.6	52.9	54.8	20.3	21.3
	Subtotal	**119.6**	**86.0**	**80.1**	**44.2**	**59.1**
	Total	**196.7**	**145.1**	**150.0**	**117.4**	**158.4**

Source: *Statistics Norway*

China | Exports | Mackerel | Frozen
Top three destinations

Unit: 1 000 tonnes, Jan-Jun



Source: *China Customs*

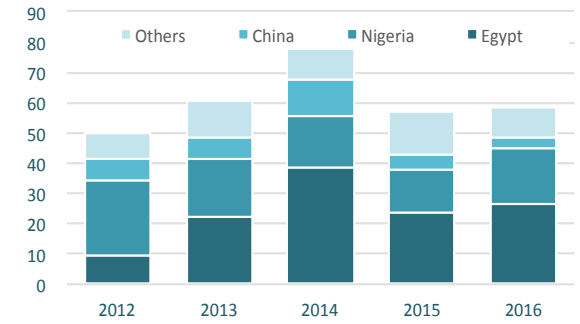
German imports of small pelagics (by product and origin)

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
Frozen mackerel	Faroe Islands	1.5	0.7	0	0.7	3.5
	Netherlands	2.5	1.6	1.7	0.5	1.5
	UK	2.2	1.1	2.4	1.6	1.0
	Others	2	2.5	2.7	2.3	1.5
	Subtotal	**8.2**	**5.9**	**6.8**	**5.1**	**7.5**
Frozen herring fillets	Norway	6.2	3.3	4.8	2.0	3.5
	Denmark	2.8	2.6	2.5	1.8	0.8
	Netherlands	0.6	0.6	0.7	0.6	0.8
	Others	4.3	4.7	2.3	1.1	1.8
	Subtotal	**13.9**	**11.2**	**10.3**	**5.5**	**6.9**
	Total	**25.4**	**20.2**	**20.2**	**13.7**	**18.5**

Source: *Germany customs (small shares of product types like canned not included)*

Netherlands | Exports | Herring | Fresh and frozen
Top three destinations

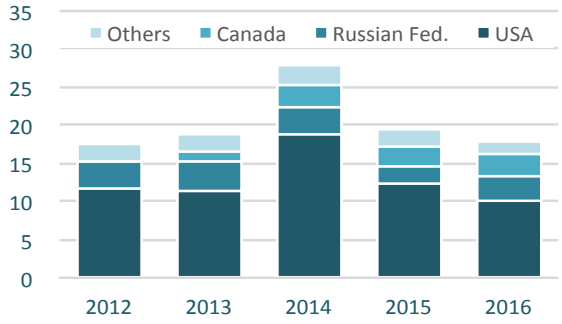
Unit: 1 000 tonnes, Jan-Jun



Source: *Eurostat*

Japan | Imports | Herring | Fresh and frozen
Top three origins

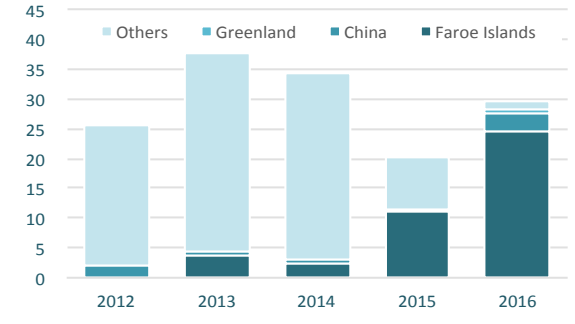
Unit: 1 000 tonnes, Jan-Jun



Source: *Japan Customs*

Russian Federation | Imports | Mackerel | Whole frozen
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Federal Customs Service of Russia*

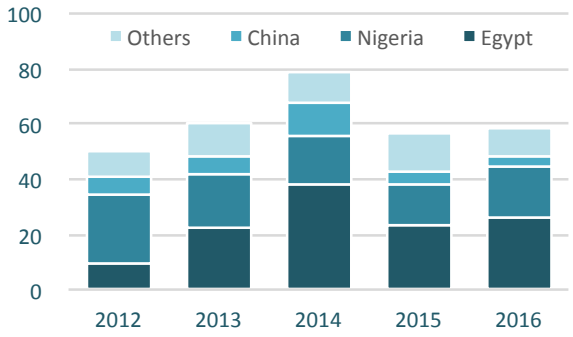
banned, and therefore the Faroe Islands accounted for no less than 83 percent of the total, with China, Greenland and Morocco accounting for the rest.

German imports of small pelagics increased during the first half of the year with frozen mackerel imports growing by 47 percent to 7 500 tonnes. The largest suppliers were the Faroe Islands and the Netherlands. German imports of frozen herring fillets went up from 5 500 tonnes to 6 900 tonnes (+25.5 percent), with the largest suppliers being Norway, Denmark and the Netherlands.

In contrast, Japanese imports of fresh and frozen herring went down in 2016. During the first half of the year, imports dropped from 19 300 tonnes to 18 000 tonnes (-6.7 percent). The main suppliers were the USA, the Russian Federation and Canada.

USA | Imports | Sardines | Canned
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *NMFS*

Russian Federation imports of whole frozen herring declined sharply during the first half of 2016 compared with the first half of 2015. Imports went down from 31 700 tonnes to just 10 700 tonnes (-66 percent). Almost all of the imports originated from the Faroe Islands.

US imports of canned sardines have over the past five years been relatively stable. After a slight decline in 2015, there was an increase in imports during the first half of 2016, when imports went from 14 300 tonnes in 2015 to 15 800 tonnes in 2016 (+10.5 percent). The major suppliers were Poland (accounting for 24 percent of the total), Morocco (18 percent of total), and China (13 percent of total).

Increasing demand for feed for the aquaculture industry is pushing prices of blue whiting up, according to Norges Sildesalgslag (Norwegian Herring Sales Organization). Average first-hand prices in 2016 are NKr2.80 per kg, compared with NKr1.91 in 2015 and 1.47 in 2014. Norwegian landings of blue whiting in 2015 amounted to 496 000 tonnes. By the end of August this year, landings had reached 327 000 tonnes (Source: *FiskeribladetFiskaren*)

Outlook

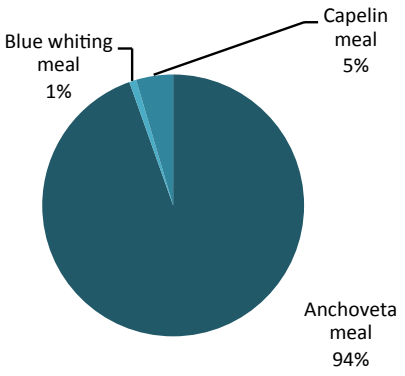
The outlook for North Atlantic mackerel and herring is positive for this season, with the potential for it to be even better next year. In the South American anchovy fishery, the situation is not so bright, as the industry expects a 20 percent drop in landings. In terms of pricing, mackerel prices are on the way up, especially for larger sizes. Whole frozen herring prices are also rising, while prices for frozen herring fillets are flat.

FISHMEAL & FISH OIL

GLOBEFISH HIGHLIGHTS

Record short first season in Peru leads to a five year production low, prices declining partially due to hardship of companies

Fishmeal production by species* (2013)



Source: ***FAO***
*Refers to direct fishmeal production, excluding waste

a Fishmeal plant in Los Terroles, Peru

© FAO/ J. Cort

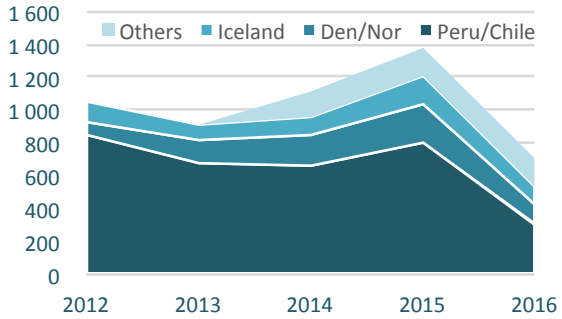
Production

On 27 July, Peru's production ministry surprised the fishmeal and fish oil market by calling an end to the first center-north fishing season even though less than half of the quota had been met. The closure aimed to allow anchovy breeding to commence without interruption.

Adding onto the short season was the fact that the start of the first fishing season, which usually is in May/June, was pushed back to 1 July. The season was given a total allowable catch of 1.8 million tonnes, which was higher than expected as IMARPE's first biomass evaluation found insufficient volumes to even allow a season.

World | Production | Fishmeal
Top producers

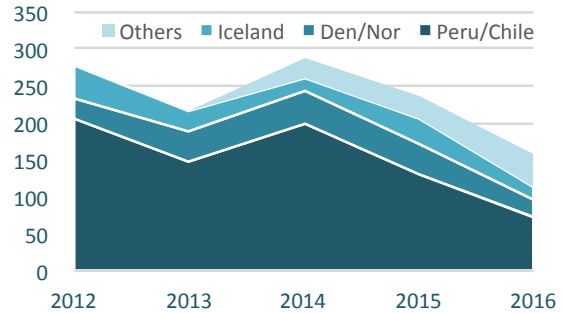
Unit: 1 000 tonnes, Jan-June



Den/Nor refers to Denmark and Norway
Source: *IFFO*

World | Production | Fish oil
Top producers

Unit: 1 000 tonnes, Jan-June



Den/Nor refers to Denmark and Norway
Source: *IFFO*

The merely 900 000 tonnes of landings from the first fishing season will be unable to even get close to meeting market demand. Furthermore, the first season was given a larger quota than the second one, thus market pressure is unlikely to be significantly alleviated by catches during the second season.

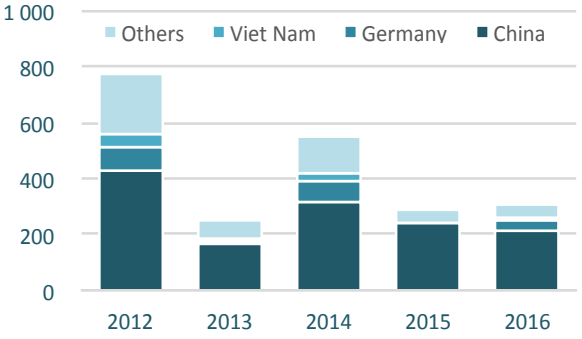
Further compounding the challenge of a short season is the effects of El Niño, which have significantly impacted South American anchovy fishing for the past three years. In 2014, the second fishing season was cancelled. In 2015, the production quantity was relatively better, but the start of the first fishing season was started earlier. This year, there was a one month delay of the start of the first season coupled with an unscheduled closure.

The statistics reflect the subsequent supply shortage. In the first half of 2016, Peru and Chile's combined production quantity of fishmeal amounted to only 311 000 tonnes, which is a 61 percent decline compared with the same period last year and in fact the lowest amount in the past five years. Major European fishmeal production was also lackluster in the first six months of 2016, hence, world production of fishmeal was almost halved compared with the corresponding period in 2015. This was the same situation for fish oil. From January to June, world fish oil production witnessed a 35 percent decline to only 156 000 tonnes.

Exports

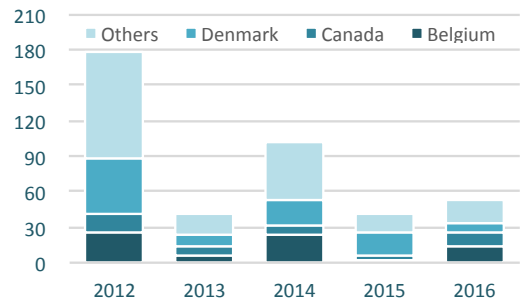
Peru's export volumes of fishmeal grew by 13 percent during the first half of 2016 compared with the first half of 2015. However, the 2014 second fishing season—lasting into February 2015—was cancelled. Thus, the first half of 2015 saw zero fishmeal production, making it more relevant to make comparisons between the first half of 2014 and 2016.

Peru | Exports | Fishmeal
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: *GTIS*

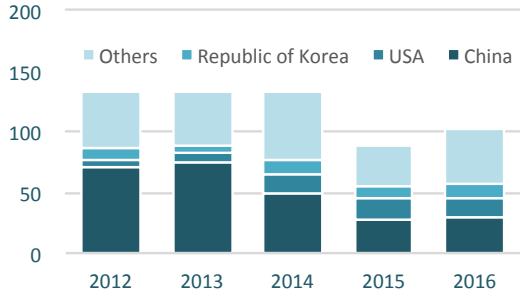
Peru | Exports | Fish oil
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: GTIS

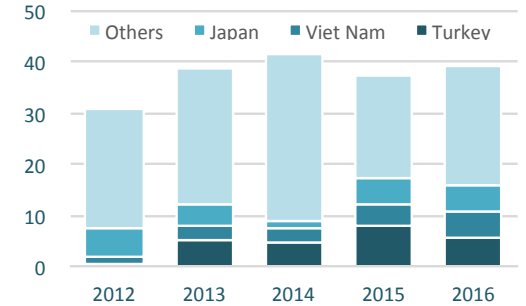
Chile reported the same scenarios comparing 2014 and 2016, with decreases both in fishmeal and fish oil exports this year.

Chile | Exports | Fishmeal
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: *GTIS*

Chile | Exports | Fish oil
Top three destinations
Unit: 1 000 tonnes, Jan-Jun



Source: GTIS

These significantly fluctuating exports have led to some analysts doubting Peru's long-term sustainability as a producer. In general, about 4 million tonnes of raw fish are needed for the processing industry to achieve market equilibrium, but in the past five years, production

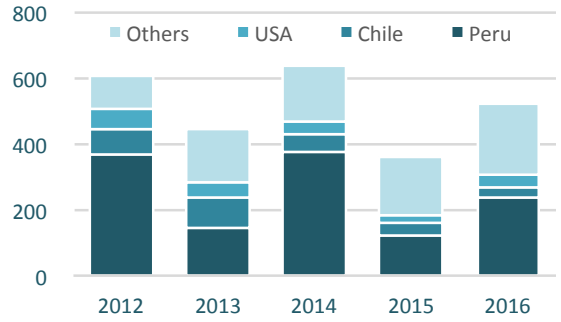
of anchoveta from Peru was ahead of this target only in 2013.

As usual, fishmeal and fish oil produced in the first half of 2016 was destined mainly for the Asian market. Peru exported 70 percent of its fishmeal to China, with this market becoming increasingly important for Peru. Among the top five importing countries for Peruvian product, Asia took four positions holding a market share of more than 75 percent of Peru's fishmeal. Chile also followed the Peruvian pattern by shipping large amounts of its output to the other side of Pacific.

Markets

In Asia, the start of the shrimp farming season began in late spring. Shrimp farming is highly feed oriented and as a result, a significant amount of fishmeal and fish oil was shipped to Asian countries as mentioned above.

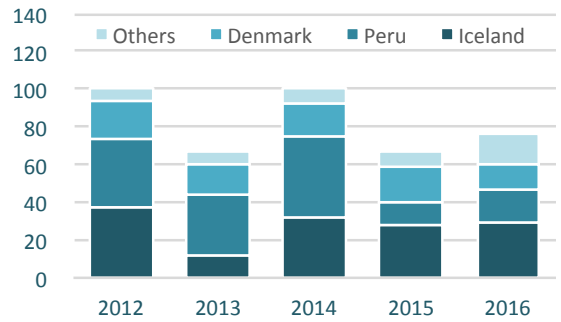
China | Imports | Fishmeal
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *China Customs*

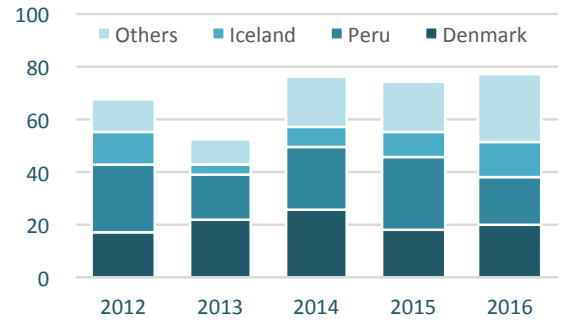
Specifically, China registered 44 percent growth in fishmeal imports with clear diversified origins. Viet Nam and Thailand both almost doubled their

Norway | Imports | Fishmeal
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *Statistics Norway*

Norway | Imports | Fish oil
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *Statistics Norway*

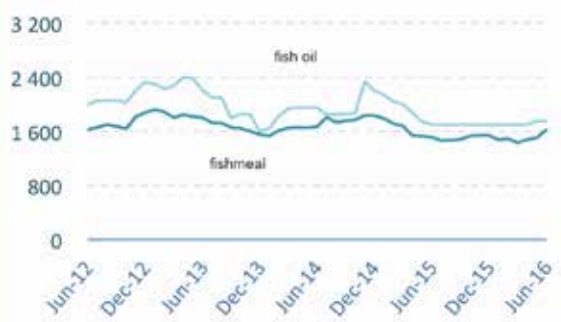
imports.

North European countries, as the traditional farming areas of carnivorous fish species, continue to play a role in fishmeal and fish oil absorption. Norway increased its imports by 13 percent compared with the same time last year with Iceland leading the provision. For fish oil, import quantity leveled off.

Prices

Fishmeal prices have been climbing since February 2016 as the market foresaw tighter quotas. According to Index Mundi, super-prime fishmeal prices peaked around June, especially pushed up by the fact that the first survey result from IMARPE was insufficient to open the fishing season. The shortest Peruvian fishing season on record will continue to spur the price, however, the market now seems to be flailing. Some companies are exacerbating their financial woes in view of the poor catching. For instance, Peru's sixth-largest fishmeal producer was downgraded by Standard & Poor's on its 200 million ponds earlier this year due to the disappointing size of this year's catch. Furthermore, many future contracts have been sold by companies so as to

Prices
Fish oil and fishmeal: Europe
US$/tonne



Source: *Oil World*

harmonize their balance sheet. To a certain extent, this explains why the fishmeal price is slightly declining rather than climbing as supplies tighten.

Outlook

After a record short season, fishing firms in Peru are hoping for a strong second season, with researchers already beginning to gauge biomass levels. Early tests found Peru's anchovy spawning season off to a slower start than thought, which may delay the second season in the center-north.

With the disruptive El Niño weather pattern now fading away slowly, global fishmeal output may rebound back to its historical normal levels. However, there are always unknowns. One expert in the sector advised that high salinity in the ocean means it is unlikely that that the second season TAC will be a surprise on the upside. The only thing that is certain is that the whole market is now waiting for findings from the biomass study, which will result in recommendations from IMARPE on the second season.

Whether the price will continue to follow the market fluctuations is difficult to say relatively soon. With the dwindling supply on the market due to the record short season, it is safe to conclude that the low fishmeal market price will bounce back in the near term.

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LOBSTER

GLOBEFISH HIGHLIGHTS

Weaker landings and growing demand forcing prices up

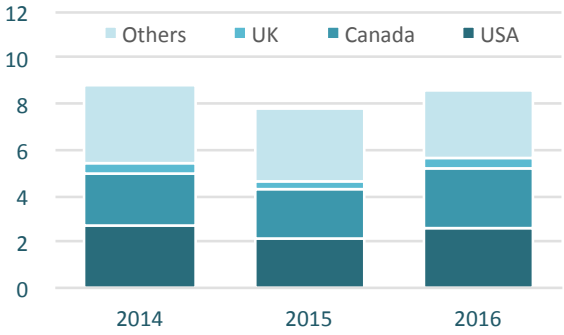
Current lobster prices on the North American market are at the highest they have been in ten years. A combination of weak landings and higher demand has pushed prices up, particularly for lobster meat. Meanwhile, the dispute over a possible ban on imports of live American lobster into the EU continues.

The big discussion in the lobster industry, especially in the USA, is the proposed EU ban on imports of US and Canadian live lobsters. Scientists on both sides of the Atlantic are arguing their case, and disagreeing on alleged findings by each party. Sweden initiated a petition to the EU in March, after 32 American lobsters were found in Swedish waters. The Swedes claim that there is a danger that the American lobsters may spread disease and replace the smaller European lobster if live imports are allowed to continue. If the Swedish petition is successful, American lobster will be listed as an invasive species, and will be banned from imports into all 28 EU member countries.

A congressional delegation from Maine claims it will appeal to the World Trade Organization (WTO) if the EU sides with Sweden. Canada's Lobster Council has joined the Americans in this disagreement with Sweden and the EU, and both groups are now engaged in talks with the EU. Canada also feels that a ban would seriously hurt Canadian exporters' interests.

In early September, the Scientific Forum on Invasive Species, which includes experts appointed by each EU member state, confirmed the validity of the Swedish scientific risk assessment. This set in motion a broader review, but this will take time, and a conclusion is not expected until next spring at the earliest. Meanwhile, it is expected that both sides will continue to advocate for their position.

EU | Imports | Lobster
Top three origins
Unit: 1 000 tonnes, Jan-Jun



Source: *Eurostat*

During the first half of 2016, EU lobster imports from the USA (for all product forms, including live) amounted to 2 600 tonnes, an increase of about 19 percent. EU imports from Canada increased even more, from 2 000 tonnes during the first half of 2015 to almost 2 600 tonnes during the same period in 2016. For all product forms, total lobster imports into the EU during the first half of 2016 totalled 8 600 tonnes.

Supplies

In the UK, demand for lobster is growing. Lobster is no longer an exclusive dish for the affluent only, but rather becoming a mainstream food. With the growing demand, some have asked whether the UK lobster stocks will be depleted. According to some industry observers there is little reason for worry, as most of the lobsters consumed in the UK are imported from the USA and Canada.

RECENT RESEARCH

Lobster resource in Norway recovering

Norway, which back in the 1950s supplied as much as 25 percent of lobsters to the European market, has seen its lobster stocks collapse completely. Over the past ten years, the Institute of Marine Research (IMR) in Norway has been working to recover the resource with 'lobster reservations', areas in which lobster are completely protected.

With these efforts, IMR is now reporting a remarkable improvement, citing that stocks in the protected areas have tripled in ten years, and some specimens of huge sizes have been registered. Researchers noted that they have not seen lobsters of such sizes for several generations, with individual lobsters larger than four kg registered. Such large lobsters are much more productive than smaller ones, and IMR is therefore quite hopeful that the stocks will be able to rebuild themselves over the years.

The spring lobster season in Prince Edward Island (PEI), Canada, showed poorer landings this year compared to last. Landings dropped by 13.5 percent to 10 700 tonnes. However, tighter supplies led to higher prices, so the value of the catch increased by 22 percent to CAN$148 million (US$113.8 million). The autumn season started on 9 August and ends on 10 October.

In Maine, hard-shell lobsters are in high demand and coupled with a low supply this has resulted in price increases. Landings are down by 50 percent compared with last year, and prices now are up to US$6.50 per lb.

Maine lobster fishers are having problems getting enough herring for bait this year. Maine regulators have indicated that they may make changes to regulations on the East Coast to help improve the situation.

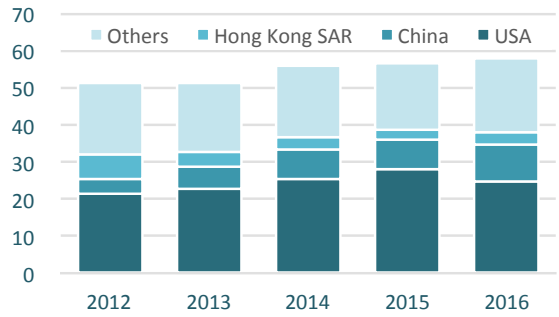
International trade

During the first half of 2016, world imports of lobster increased slightly compared with the same period in 2015. Total imports were 3 percent higher at 58 000 tonnes. The main changes were a 26.6 percent increase in Chinese imports, to 10 000 tonnes, and an 11 percent drop in US imports, to 24 900 tonnes. Practically this entire drop was due to lower Canadian exports to the USA.

The lower landings in PEI and higher prices have changed the processors' choice of product form, according to Seafood.com. US chefs are adapting to the high prices for lobster meat by changing the composition of their menu items that contain lobster. Generally, they aim to offer a lobster dish at a reasonable price, so aim to design meals with a lower lobster content, while still offering lobster as the main ingredient.

Top three importers of lobster in the world

Unit: 1 000 tonnes, Jan-Jun

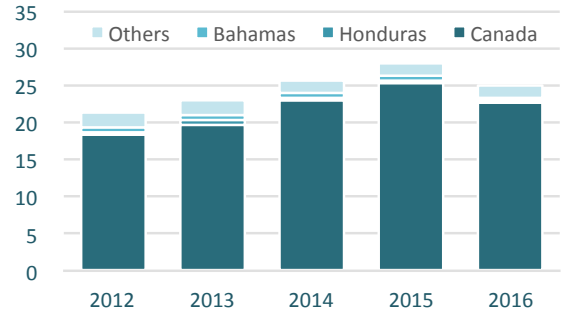


Source: *GTIS*

In terms of exclusively lobster meat, US imports are the highest they have been in years. Each month from January to June 2016 showed an increase over previous years. Prices for lobster meat have not come down on the US market and instead have only continued to rise in the second quarter, although there were signs of stabilizing import prices in July. For lobster tails, US import prices have been on a steep downward trend since late 2015, but improved significantly during the second quarter of 2016. However, like lobster meat, prices for this product also stabilized in July.

USA | Imports | Lobster
Top three origins

Unit: 1 000 tonnes, Jan-Jun



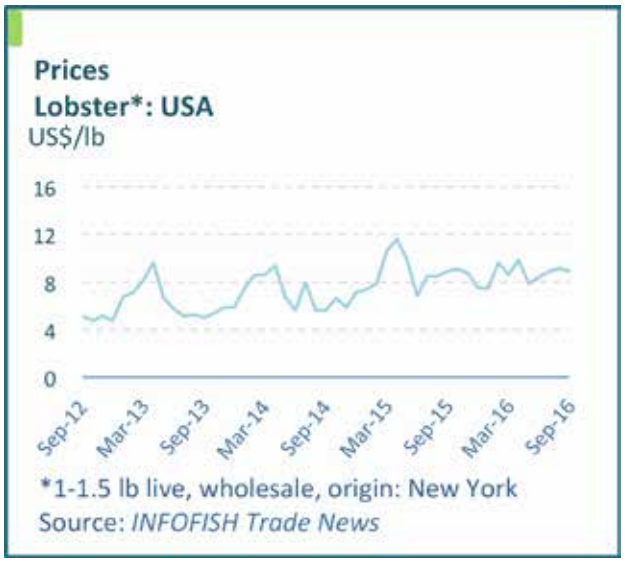
Source: *U.S. Department of Commerce*

Prices

Lobster prices in North America are at their highest point in ten years, and demand seems to continue to grow. Retail prices on the US East Coast remained high into September, when consumers were paying between US$9.00 and 11.00 per pound for live lobster. Several reasons for the high prices include: weaker landings, growing demand for live products, rising interest from processors of such products as lobster rolls and lobster macaroni and cheese, as well as interest in Asia for North American lobster. Particularly the demand for lobster as a raw material for processed products may keep prices high for some time into the future.

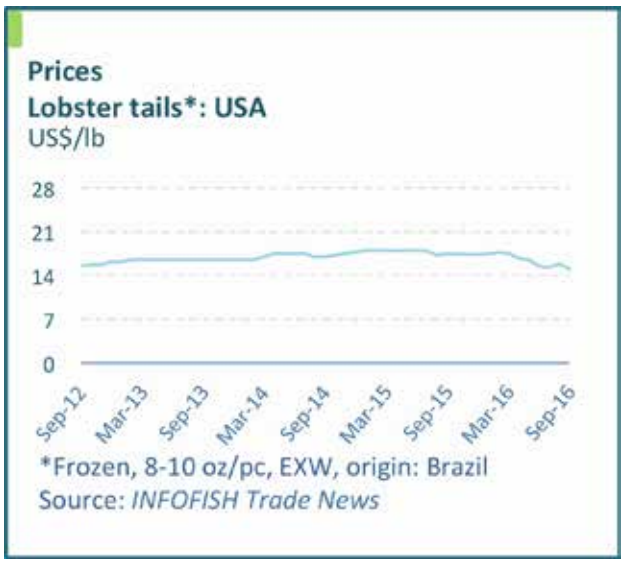
For only lobster meat, prices have increased steadily to record levels over the past year.However, they now seem to have stabilized, and observers are uncertain about whether they will continue to rise.

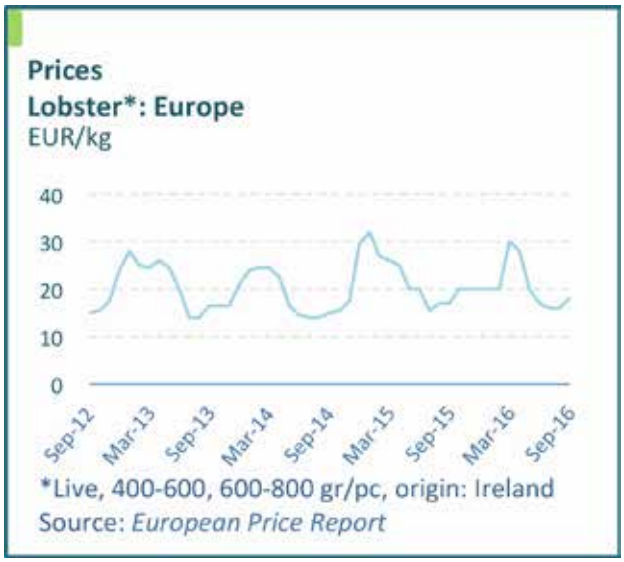
In China, the situation is somewhat different. Last year, demand for lobster in China was growing rapidly, driving prices up significantly. Now the slow-down in the Chinese economy seems to have impacted this consumption with demand slowing down considerably and prices decreasing.



Outlook

Lobster landings during the spring and summer season in North America were lower than last year, leading to tighter supplies and pressure on prices. In addition, demand is growing in North American and European markets as well as in Asia, though Chinese demand is slowing down a bit. This situation is expected to continue, and prices will therefore continue to be high for some time.





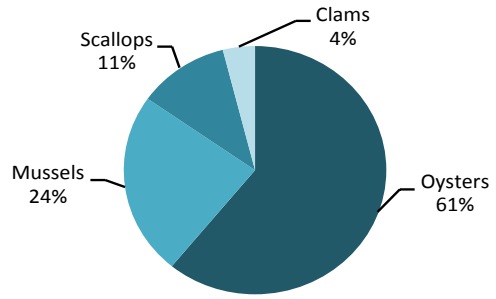
BIVALVES

GLOBEFISH HIGHLIGHTS

Limited trade in bivalves

Over 14 million tonnes of bivalves are produced by aquaculture every year. However, the share of bivalves entering international trade is relatively small, as most of the production is consumed within the production country. This is especially true for the top world producer, China, which produces over 80 percent of the world's bivalves, but consumes almost all of this production domestically. The amounts that do enter into international trade includes about 200 000 tonnes of mussels per year, 180 000 tonnes of clams, 150 000 tonnes of scallops, and 50 000 tonnes of oysters. These figures demonstrate that less than 5 percent of world bivalve production enters international trade, one of the lowest proportions in the whole seafood trade. This is due to the very nature of bivalves, which are highly perishable and potentially risky for human health if not properly handled.

Bivalve production by selected species, both wild and farmed (2014)



Source: ***FAO***

The EU is one of the main markets for bivalves taking over one-third of the total bivalve trade. There is a significant share of intra-EU trade, for instance from Spain, UK and the Netherlands to the French market, while France exports huge quantities of oysters to neighbouring EU countries. There are only 13 non-EU countries authorized to send live bivalves to the EU market, which stresses the strict sanitary control of this type of seafood.

The French market is very representative of the whole European market for bivalves as demand in this country is trend setting for the entire EU trade of bivalves. In addition, France is both an important producer of bivalves, especially for oysters that are exported live to all neighbouring markets, as well as a significant importer and consumer of bivalves from EU and non-EU countries. France also sets the trend in terms of prices of bivalves in the EU market.

Mussels

Total world production of cultured mussels is 2 million tonnes, with China producing about half of this volume. Other important producing countries are Chile and Spain, which produce about 230 000 tonnes each. 10 percent of the world mussel production enters international trade.

In 2016, the performance of the Chilean mussel industry was impacted by red tide. Indeed, in the first six months of the year, Chilean mussel exports totalled only 34 500 tonnes, 7 000 tonnes less than in 2014. Spain and the USA are generally the main markets for Chilean mussels, and both markets contracted in the first six months of 2016.

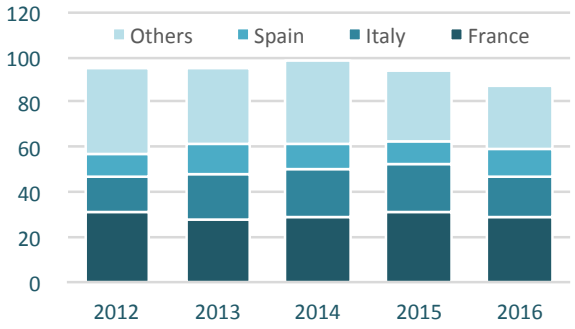
World imports/exports of mussels

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
IMPORTS	France	30.7	27.9	29.1	30.9	28.6
	Italy	16.6	19.8	20.8	21.2	18.8
	USA	17.8	16.7	17.8	16.6	17.6
	Others	68.3	67.9	71.3	62.4	64.8
	Total	**133.4**	**132.3**	**139**	**131.1**	**129.8**
EXPORTS	Chile	35.0	36.8	37.7	41.7	34.6
	New Zealand	18.8	16.1	19.4	16.0	18.6
	Spain	19.6	18.4	22.1	19.4	18.5
	Others	73.4	69.3	71.9	72.4	75.2
	Total	**146.8**	**140.6**	**151.1**	**149.5**	**146.9**

Source: *GTIS*

EU | Imports | Mussels
Top three origins

Unit: 1 000 tonnes, Jan-Jun

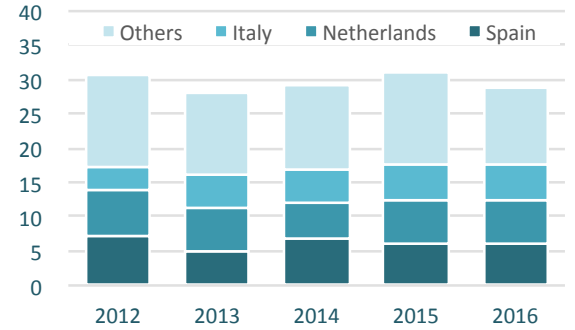


Source: *Eurostat and Customs*

The EU production of mussels is divided between rope culture and bottom culture. The northern countries, especially the Netherlands, concentrate on the latter, while Spain and Italy are mainly culturing mussels on ropes. In Spain, culturing mussels is a small-scale activity in Galicia, which in the past supplied the local canning industry. In recent years, frozen mussels from Chile were instead replacing the domestic Spanish mussels. This created quite some uproar in the Spanish mussel industry and forced several small-scale producers out off business. At present, the remaining producers have found an eager market in France, especially during the off season of the French bouchot mussel.

France | Imports | Mussels
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *DNSCE*

According to Agrimer in France, domestic fresh mussel consumption remained stable at +0.4 percent in volume in 2015 to reach 43 500 tonnes. Prices rose slightly by 0.9 percent.

In September, the French bouchot and Dutch bottom mussel season were in full swing. Spanish rope mussels were also widely available on the French market. Promotional efforts were significant for product of all origins with French Bouchot filling the top price segment. Prices of mussels were about €4.80 per kg, 5 cent below the price in September 2015.

Oysters

Total annual production of cultured oysters is 5.1 million tonnes, with China again as the main producer accounting for more than 80% of the supply. Similar to mussels, trade in oysters is relatively limited to about 60 000 tonnes per year.

World imports/exports of oysters

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
IMPORTS	USA	3.8	4.4	4.5	5.4	5.1
	France	1.7	1.7	2.2	2.3	3.9
	Hong Kong SAR	2.8	3.2	3.6	3.0	3.2
	Others	14.9	15.1	16.4	20.9	18.7
	Total	**23.2**	**24.4**	**26.7**	**31.6**	**30.9**
EXPORTS	Republic of Korea	5.0	6.0	6.5	9.8	4.8
	France	3.1	3.4	3.6	4.3	4.4
	China	3.4	4.3	3.9	4.0	4.2
	Others	11.0	10.7	12.3	11.9	13.7
	Total	**22.5**	**24.4**	**26.3**	**30.0**	**27.1**

Source: *GTIS*

In the USA, oyster production is the most significant in value of the bivalves produced by aquaculture, valued at over US$150 million. Oyster farming takes place in the Pacific of the USA as well as in the Northeast, Southeast and Gulf of Mexico. Total production of cultured oysters in the USA was 125 000 tonnes in 2014.

In the 1990s, the wild oyster beds on the US East Coast were severely impacted by outbreaks of the MSX parasite. Since then, the emergence of new breeds of disease-resistance oysters has led to a revival of small-scale oyster farming. Farmers have focused on selling oysters to the raw market, due to the higher profitability. Some small-scale farmers sell directly to high-end restaurants, where oysters are shucked by hand and served on the half-shell. This resurgence in small-scale growers has been fuelled by a growing number of American consumers interested in eating local and high-quality seafood, which has also led to the popularity of oyster bars in urban areas. In the state of Maine in the Northeast USA, raw oysters abound on local restaurants menu, with some restaurants serving more than eight local varieties. As of September, these oysters were priced around US$3–3.50 each in restaurants, while in retail sold for about US$2–2.50.

Although domestic production is the most significant provider for consumption, the USA is among the main importers of oysters. In the first six months of

2016, about 5 000 tonnes of oysters were imported, in line with imports during previous years.

French domestic oyster consumption rose by 6.5 percent in volume in 2015 to reach 25 400 tonnes, although the average retail price declined by 6.9 percent. In April 2016, the latest month in which data are available as oysters generally do not reach the French market during summer, prices for a dozen oysters in the wholesale market were about €8.73, about €1.00 below the price of previous years.

In the EU, France, Spain and Italy are the main importers of oysters, while France is among the top exporting countries as well.

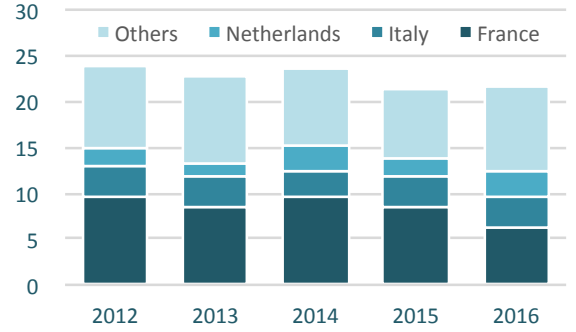
World imports/exports of scallops

		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
IMPORTS	China	10.2	20.1	22.5	45.9	24.0
	USA	8.5	12.9	16.2	12.1	14.7
	France	9.7	8.8	9.8	8.8	6.4
	Others	34.9	36.6	37.7	37.5	39.3
	Total	**63.3**	**78.4**	**86.2**	**104.3**	**84.4**
EXPORTS	China	14.6	15.2	20.0	16.9	18.9
	UK	6.4	5.8	5.7	5.1	6.4
	USA	7.0	5.8	5.9	4.9	5.2
	Others	24.1	26.1	29.2	27.6	22.2
	Total	**52.1**	**52.9**	**60.8**	**54.5**	**52.7**

Source: *GTIS*

EU | Imports | Scallops
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Eurostat and Customs*

Clams and scallops

Overall the clam and scallop trade remain stable. For the first half of 2016, scallops imports into the EU were 21 500 tonnes, which is on par with the same time period in 2015.

World imports/exports of clams/cockles/ark shells

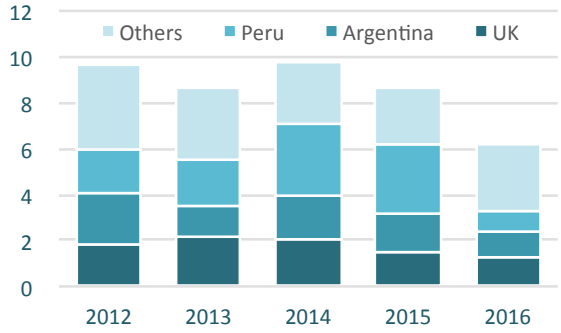
		January-June				
		2012	2013	2014	2015	2016
		(1 000 tonnes)				
IMPORTS	Japan	35.4	37.8	33.1	42.2	43.3
	Republic of Korea	34.7	30.4	35.8	35.1	32.0
	Spain	3.9	10.9	12.2	13.5	14.2
	Others	35.3	40.0	39.8	39.5	40.0
	Total	**109.3**	**119.1**	**120.9**	**130.3**	**129.5**
EXPORTS	China	75.4	74.5	78.7	84.5	81.4
	Republic of Korea	6.3	5.2	4.4	4.5	6.3
	Canada	4.2	3.8	3.8	3.3	5.0
	Others	23.3	29.2	30.0	30.3	28.5
	Total	**109.2**	**112.7**	**116.9**	**122.6**	**121.2**

Source: *GTIS*

France is the main importer of scallops, but imports contracted sharply from 8 600 tonnes in the first half of 2015 to 6 200 tonnes in the corresponding period of 2016. This sharp decline was exclusively due to fewer arrivals from Peru, where the scallop producing industry, like many others in the fishery sector, was impacted by El Niño.

France | Imports | Scallops
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *DNSCE*

Japan and the Republic of Korea are the main importers of clams in the world, with about 60 000 tonnes imported annually from each. The first half of 2016 saw a 13 percent decline in Republic of Korea's imports, while Japan's imports were about stable. Both countries thus reported 30 000 tonnes of imports during the first half of the year. China is the main supplier of clams to both markets supplying more than 90 percent.

Outlook

While the mussel, scallop and clam market are expected to continue to be calm until the end of the year, the oyster market is likely to see substantial price increases in view of trade being fueled by holiday and New Year demand.

RECENT NEWS

New York City attempts to restore a sustainable oyster population

In New York Harbor, the Environmental Protection Department added nearly 50 000 adult oysters to Jamaica Bay in early September, making it the largest single installation of breeding oysters in New York City. The project is the city's most recent and significant attempt to restore a self-sustaining oyster population in Jamaica Bay with the aim to improve water quality, protect the shoreline from erosion and revive habitats for fish and wildlife. In the 1800s, New York Harbor was covered in oysters but due to overharvesting, dredging and pollution, they became nearly extinct.

Source: *The New York Times*

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CRAB

GLOBEFISH HIGHLIGHTS

Thightening supplies and high prices for snow crab and king crab

While prices for snow crab and king crab have been high recently due to tighter supplies, prices for other species have not increased. On the US west coast, dungeness crab is in short supply, but prices have barely moved since last year.

Supplies

The west coast dungeness crab landings were down by as much as 40–45 percent this year, mainly due to high domoic acid levels. In California, the dungenes crab fishery was completely closed for much of the season due to the levels. Strangely, prices were significantly lower despite scarce supplies, with some blaming the short harvesting season.

In contrast, high levels of domoic acid left the Alaskan crab fishery unscathed. Although landings were slightly down compared with 2015, prices remained steady. The average first-hand price to fishers was up only marginally, from US$2.99 per lb last year to US$3.03 per lb this year (Source: *Undercurrent News*).

Alaska stocks of snow (opilio) crab and tanner (bairdi) crab may be in some danger, according to reports by Seafood.com. The 2015–2016 snow crab landings were down by 40 percent compared with the 2014–2015 season. Recent NOAA figures indicate that the male biomass has declined for all of the major crab species in the region, with the largest decline registered for opilio crab.

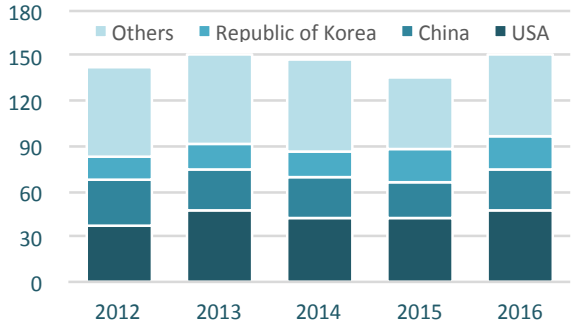
In Canada, snow crab landings were well below the 42 650 tonne quota at the end of the Newfoundland season. According to figures from the Department of Fisheries and Oceans, 37 958 tonnes had been landed. This is the lowest catch since 1996. Unlike Alaskan and dungeness crab, snow crab prices have risen in response to weak supplies. Snow crab quotas in Alaska were cut by 40 percent, and this helped push snow crab prices up significantly.

Norway reports excellent catches of the local crab species *Cancer pagurus*, which is very similar to the dungeness crab (*Cancer magister*). Processors in central Norway reported that they have never before received such large amounts for processing, and the quality is reported to be very good. This species is sold mostly whole fresh or frozen and picked meat packed in crab shell, often with the claws as a side product. The largest processor, Hitramat, annually produces around 3 000–4 000 tonnes of this crab.

International trade

During the first half of 2016, US imports of crab increased slightly. Imports grew from 60 800 tonnes to 63 600 tonnes (+4.5 percent).

Top three importers of crab in the world
Unit: 1 000 tonnes, Jan-Jun

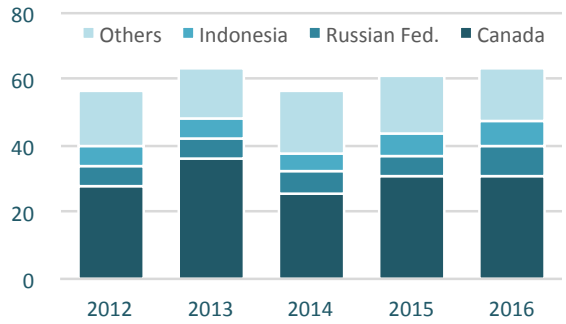


Source: *GTIS*

Japanese imports also rose, but at a steeper rate. During the first half of the year, Japan imported 13 300 tonnes of crab, up from 10 700 during the same period in 2015 (+24.3 percent). However, Japanese imports of Canadian (Newfoundland) snow crab have dropped by half as a result of poor landings, making imports more expensive. The strong yen, which was thought to offset the US dollar price increases somewhat, only partially did so.

USA | Imports | Crab
Top three origins

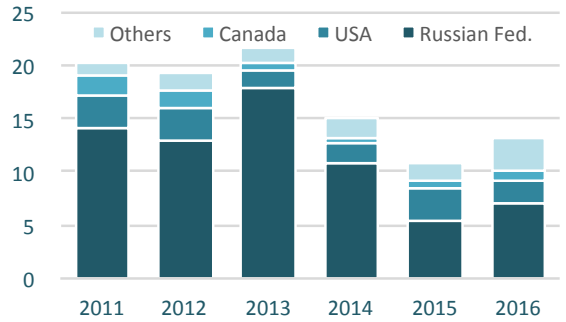
Unit: 1 000 tonnes, Jan-Jun



Source: *NMFS*

Japan | Imports | Crab
Top three origins

Unit: 1 000 tonnes, Jan-Jun



Source: *Japan Ministry of Finance*

Chinese demand for crab is strong, with demand for live crab particularly good. Improved cargo flight service by Cathay Pacific between Portland, Oregon (USA) and Hong Kong SAR has also helped open this new opportunity to West Coast exporters of crab.

Previously, GH has reported on the fight against IUU crab fishing in the Russian Federation and in June, the Russian Federation and China signed an agreement to curb IUU caught crab trade. In recent years, China has become a major destination for illegally caught Russian Federation crab. Much of this trade has been channelled through the Democratic People's Republic of Korea. With this agreement, it is now expected that the illegal trade will taper.

Prices

The largest operators in king crab trade, the Russian Federation and USA (Alaska), are expecting that the present high prices will continue to move upwards, especially for medium and small-sized products. Demand is strong and supplies limited, with higher prices resulting. In addition, the Asian markets are showing growing interest in this product.

Snow crab prices have reached record levels this year due to short supplies. Despite the high prices, global demand seems to be very strong – both in North America as well as in Asia – although exports to Asia are down this year as a result of the tight supply situation.

Northern European (mainly Norwegian) king crab prices have also been very high this season. Catches were a bit behind last year, due to bad weather, but are now picking up again. Volumes landed are still relatively small, and although currently this fishery has little impact on world crab markets, it will be interesting to see how this develops in the long-term.

Prices for blue swimming crab have been low for the

Prices
Crab*: New York, USA

US$/lb

*Claw and sections, red, EXW, origin: Alaska
Source: *INFOFISH Trade News*

past year, but are now beginning to stabilize. Record exports of this product from China and Indonesia have put downward pressure on prices over the past year or so. US imports of blue swimming crab meat were up by about 10 percent in 2015 compared with 2014, and have shown a steady increase over the past three years. According to experts at the recent Global Seafood Marketing Alliance conference in Miami, the oversupply situation is beginning to ease, and prices should therefore stabilize soon.

Outlook

Supplies of snow crab and king crab are expected to be tight, and consequently prices will remain high and may even rise further, with strong demand and Asian markets demonstrating increased interest in these products.

For dungeness crab and its cousin in Northern Europe (*Cancer pagurus*), demand is strong, but the situation in Europe and on the West Coast of the USA is quite different. In the USA, a short season and low supplies have failed to push prices up, while in Europe, demand has grown and prices have been quite good. It is expected that European interest in this product will continue to grow, and that prices will therefore become even firmer.

ABALONE

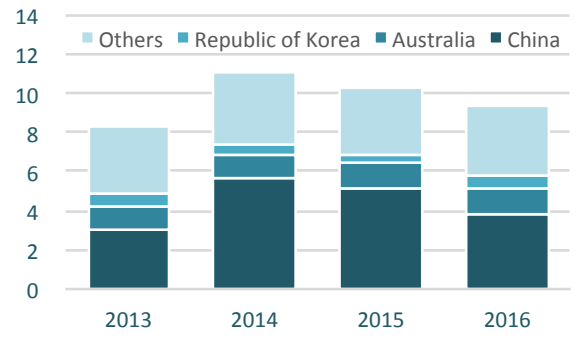
GLOBEFISH HIGHLIGHTS

World production at high levels, yet prices remain steady

This issue marks the first time GLOBEFISH Highlights has included a report on abalone, a species of growing importance in world trade.

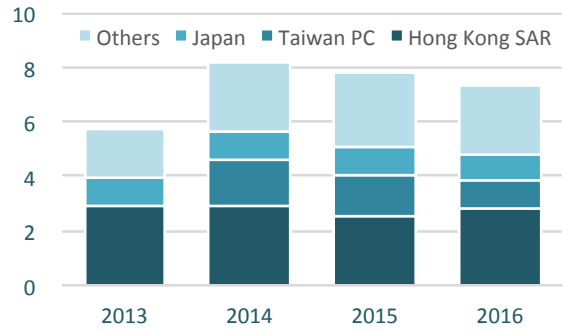
Known in ancient times as the "elixir of life" and as the "emperor of shellfish", today abalone upholds its place as one of the most expensive of any seafood item worldwide. As with other seafood, production has shifted from wild caught to farmed, and today over 95 percent of abalone comes from aquaculture. In 2015, capture fisheries landed less than 7 000 tonnes of the species, a decline of 70 percent since 1950. In contrast, world aquaculture production grew to over 135 000 tonnes in 2014, which was an industry virtually nonexistent 40 years ago.

Top three exporters of abalone in the world
Unit: 1 000 tonnes, Jan-Jun



Source: *GTIS*

Top three importers of abalone in the world
Unit: 1 000 tonnes, Jan-Jun



Source: *GTIS*

Asia

China

China is easily the leading producer of abalone in the world, producing nearly 115 400 tonnes in 2014,and remains the foremost consuming country. China is also a substantial importer. A fourfold increase (400 percent) in production over the past 10 years has allowed millions of more Chinese consumers to enjoy this expensive yet favorite delicacy. Average market prices in mid-2016 US$25–27 per kg, in shell.

Republic of Korea

With virtually no production 15 years ago, the Republic of Korea has become the second largest worldwide producer at over 9 000 tonnes in 2014. Predominately grown on small-scale farms, many issues are currently under national study, including increasing exports, improving the processing/distribution system, and imbalances in supply.

Japan

After Hong Kong SAR, Japan is the world's second largest and most discerning importer of abalone, with fish markets displaying abalone from virtually every producing country. In 2014, Japan produced 1 360

tonnes and imported over 2 600 tonnes as well. Prices are steady, with the country's own landings receiving a premium over all imports.

The Pacific

Australia

Australia is the world's largest remaining capture abalone fishery. In 2014, Australia produced nearly 5 000 tonnes, which includes almost 900 tonnes from their growing aquaculture industry. Exports in 2015 totaled 2 680 tonnes. It is hoped that the recent China-Australia free-trade agreement will result in greater access to the Chinese markets.

New Zealand

Government quotas have perpetuated commercial abalone landings at 800 to 1 000 tonnes for the past 10 years. Unfortunately, IUU fishing remains substantial. New Zealand maintains a small but growing aquaculture industry.

Africa

South Africa

Once a major capture exporter, the fishery has been virtually closed for many years, primarily due to continuing IUU activities. Beginning in the early 1990s, an infant aquaculture industry has grown exponentially, exporting 1 130 tonnes in 2015. South Africa's abalone is considered one of the world's most premium, in part the result of strong quality control as well as the fact that it is of a larger size and has a unique taste that is preferred by many.

North, South, Central America

Mexico

Mexican-captured abalone is considered a world premium. This is because Mexico is one of the last countries to legally fish wild, large-sized, green abalone (*H. fulgens*) under a government quotas system. The bulk is processed into cans of 255 g drained weight, with price per can the highest of any canned abalone in the world. Government fishing quotas have been reduced nearly 30 percent from 2010 to 2015, in part as a result of unabated cartel-related IUU activity. Mexico has a small yet growing aquaculture industry.

Chile

In contrast to other countries, abalone is not indigenous to Chile but Chileans were introduced to the taste of abalone with product from California. Chile began farming red abalone (*H. rufescens*) in the early 1990's, with production achieving 1 200 tonnes in 2014.

USA

Once one of the world's largest abalone fisheries, overfishing and IUU activity led to a total commercial closure 20 years ago. Abalone is currently farmed only in California and Hawaii, with a large percentage exported live to Asia, notwithstanding a growing US market.

Other countries

In addition to the higher production countries, commercial aquaculture also exists in Canada, Channel Islands, France, Iceland, Ireland, Italy, Namibia, New Zealand, Oman, Spain, Taiwan Province of China, Thailand and the UK. There is also a capture fishery in the Philippines.

Outlook

As the legal capture fisheries of abalone have diminished, the past 10 years has seen a five-fold increase in world farmed abalone production. Nonetheless, prices have stabilized as many have been introduced to abalone for the first time and consumer popularity has grown. With prudent efforts toward disease prevention and environmental sustainability, increased production and price stability can proceed together.

An overview of the global tuna market

Two main products drive tuna production; traditional canned tuna and sashimi/sushi. These products demonstrate relevant differences in terms of the species utilized, quality requirements and production systems. In the canned market, light meat species – namely skipjack and yellowfin –are dominant, whereas in the sushi and sashimi market, the fatty tuna of bluefin and other red meat species like bigeye are preferred. Bluefin tuna is the top preference for the sushi and sashimi market with most of it going to Japan. In a new trend however, the market for bluefin is significantly shrinking, as Japanese consumers are moving away from traditional foods such as sashimi to more westernized food items.

© FAO/ Abdelhak Senna

Introduction

The canned tuna industry is entirely supplied by the wild fishery. For the sushi/sashimi sector, tuna ranching of bluefin has emerged as a supplier in the last two decades, supplying somewhere around 20 percent or less. In terms of demand, for canned tuna it is distributed worldwide, involving companies of different dimensions, with some also including large processing companies. While integration is also a trend in the sushi and sashimi market, almost all trade is concentrated in Japan, which represents almost 90% of the global trade for fresh and frozen bluefin tuna. However, this does not take into account the significant domestic consumption of bluefin tuna in Spain and Italy, where it is eaten as steaks and chunks.

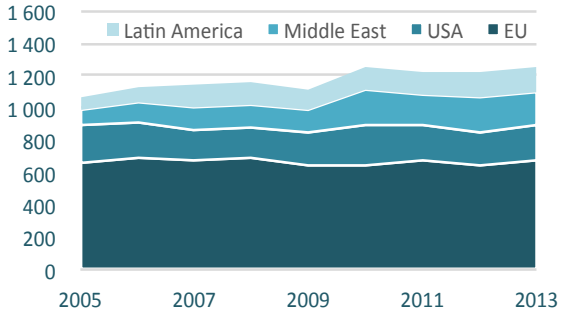
The traditional markets for canned tuna products in developed countries have stagnated in the last decade. Fortunately for producers, new markets in the Near East and Latin America have emerged and traded volumes have increased into these countries, helping to maintain both volume and value growth in world canned tuna trade. However, in recent years, there has been growing public concerns over tuna sustainability and safety issues, demonstrating several major challenges for the canned tuna sector.

Markets for canned tuna

The canning industry remains the main destination for most of the world's tuna catches. Thailand is by far the largest exporter of processed tuna in the world. From 2000 to 2011, Thai exports increased by 119%, which is a similar trend for Ecuador and Spain. Indonesia and the Philippines increased their exports as well, though below 50%. For canned products, the raw material is supplied both from local landings as well as imports, though by different proportions depending on the country.

Top four importers of prepared and preserved tuna

Unit: 1 000 tonnes



Source: *FAO, 2016*

The major markets for canned tuna are the USA, the EU, Egypt, Japan and Australia. However, consumption in the last decade has slowed in the EU and the USA, and has increased only moderately in Japan. Consumption is growing in the less traditional markets of Latin America and the Near East, where the volume of imports has risen by around 50 percent in the last five years.

The organization of the canned tuna industry is comprised of complex international trade networks. It is common practice in the European and US industries to locate the first steps of processing in developing countries close to the main landing areas and then export semi-processed products to the facilities in developed countries for completing the process up until final distribution and consumption. These networks involve the trade of a wide variety of product forms across countries, which may vary in their levels of processing. Tuna loins are now the main product in the market.

The overall growth in demand of canned tuna has resulted in price increases in all producing countries. Spanish exports, which mainly focus on intra-EU trade with yellowfin, hold a price differential as a result of its preimium quality and the high income of the EU destination markets (Fernández-Polanco et al., 2012)[1].

Increasing retail consolidation worldwide has resulted in supermarkets dominating canned tuna sales in the traditional developed markets. Retail chains in the developed markets have been promoting canned tuna as an affordable and very convenient food, and have been able to maintain relatively low prices both at the wholesale and retail level in order to sustain increasing consumption. The price of raw materials is then a key determinant of the processors' profit margins. Some processors have tried to increase their margins by shifting from yellowfin and albacore to lower priced skipjack, which is also of lower quality. However, this strategy has resulted in even lower retail prices in quality driven markets such as France and Spain.

Despite retail concentration, canned tuna persists in being a brand dominated market although private labels owned by supermarkets are increasing their market share. In order to counterbalance these profitability challenges to processors, the processing sector has focused on product development, increasing convenience and alternatives for preparation and consumption such as salads or pouched tuna fillets in traditional sauces.

In the Japanese canned tuna market, the high-value yellowfin is still a preferred product generally processed by local canneries. Imports of canned tuna largely consist of skipjack-based products.

Markets for sushi & sashimi

The sushi and sashimi market is the other main destination of tuna production, particularly red meat tuna. The most valuable species for sashimi is bluefin, which has been the case for the last five decades as its high oil content is preferred in Japan. More recently, bluefin's value has only been further compounded by the fact that supply volumes are now quite low with the bluefin resource under conservation measures.

A relatively new development on the market is farmed tuna, known as tuna ranching. Tuna ranching has influenced market and distribution systems by driving shifts in consumer preferences and pricing. Bluefin from ranching sources has provided a more affordable option to those Japanese consumers who are unable to afford the most prized product, wild-caught bluefin. Today, tuna ranching firms have been vertically integrated into transnational corporations and have had a moderate to strong impact on the markets by opening up this emerging medium-quality sushi market.

Japan is the largest importer of bluefin tuna species of any kind. Although less significant than Japan, other countries such as the USA, Spain and Italy have increased their consumption of bluefin. The increase of Japanese bluefin tuna imports is a result of changes in the consumption structure of the

market (Kurokura et al., 2012)[2]. These changes include the fact that in the past decade, supermarket and restaurant chains have gained relevance in sale volumes as opposed to the traditional auction system. Fresh tuna are normally marketed whole through auctions, but now around 70–80 percent of frozen products are sold to other agents outside the auction system. This shift in the distribution of tuna in Japan contributed to the growth in Japanese consumers' preference towards lower cost foods.

Overall, sushi & sashimi consumption is declining in Japan as consumer are gradually changing their preferences and some segments are driven to lower-cost foods. However, sushi consumption is now a global trend as consumers concerns about healthy eating increases and international culinary experiences gain popularity worldwide (Lappo et al., 2014)[3]. The second market in volume for sushi and sashimi is the USA, with an estimated share of 8–10 percent of global sashimi consumption. In the last decade, popularity of Japanese food also increased in the EU. Important markets have also grown in Australia as well as other Asian economies such as Thailand, Taiwan Province of China, Republic of Korea and China. Sushi bars are also becoming popular in the capitals of Latin America. Although different tuna species are used as red meat sashimi, the future of the bluefin market, and by extension the tuna ranching industry, appears to be linked to the success of the Japanese cuisine in becoming an essential part of a global multicultural diet.

Conclusion

Tuna production has faced important challenges in recent years, and as a result has had to adapt its production, organizational and marketing methods to improve its efficiency, respond to environmental concerns and growing demand. Production has especially faced significant issues regarding the preservation of wild stocks and the sustainability of harvesting methods such as the ban on FADs in the supply of canned tuna. Although ranching production has reached important levels of development in the last two decades, future growth is still limited by the availability of wild juveniles, also rendering its sustainability to be determined.

Despite these challenges, markets for tuna products continue to increase based on the growth of consumption in new regions of the world and the dissemination of sushi as a global dietary trend. The traditional markets show signs of maturation but still represent a significant and profitable volume for business. Growing interest is focused on developing new value-added products, which may help increase margins for the sector in the likely scenario of growing raw material prices.

Consumer concerns regarding safety and sustainability issues with tuna, already a major issue, may continue to rise and pose a greater challenge to future market development. At times, consumer concerns can originate from conflicts in the international arena, as is the case of the trade disputes between Mexico and the USA due to the requirement of the Dolphin Safe labeling scheme. The industry must address concerns, through transparency and dialogue between the industry and the public.

1 Fernández-Polanco, J.M., Llorente, I., Luna, L. & Fernández, J.L. 2012. El mercado de productos pesqueros en España [The market for fish products in Spain]. GLOBEFISH Research Programme No. 106. Rome, FAO.

2 Kurokura, H., Takagi, A., Sakai, Y. & N. Yagi. 2012. Tuna goes around the world on sushi. Aquaculture Economics & Management, 16(2): 155-166.

3 Lappo, A., Bjørndal, T., Fernández-Polanco, J.M. & Lem, A. 2015. Consumers' concerns and external drivers in food markets. FAO Fisheries and Aquaculture Circular No. 1102. Rome, FAO.

GLOBEFISH HIGHLIGHTS

Fish industry recognizing ornamental fish trade at the 2nd International Ornamental Fish Trade and Technical Conference

Now in its second year, the 2016 International Ornamental Fish Trade and Technical Conference, will be held in Sri Lanka, currently the sixth largest supplier of ornamental fish to the global market.

© FAO/ Alessia Pierdomenico

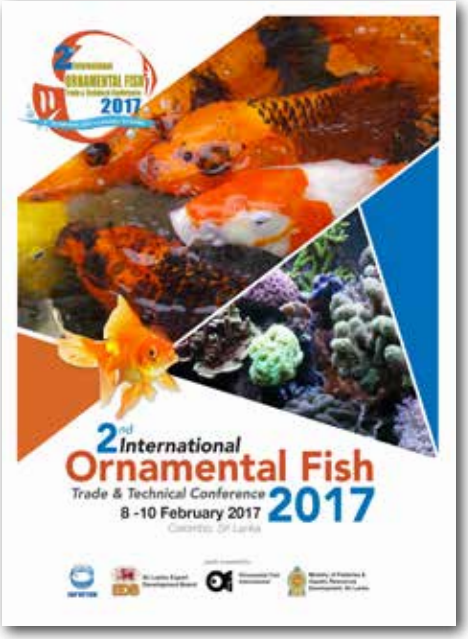
The International Ornamental Fish Trade and Technical Conference will take place from 8–10 February 2017 in Colombo, Sri Lanka and will be comprised of a two-day conference and a one-day field trip to ornamental fish farms in the country. The three-day event is organized by INFOFISH, a member of the FISHINFONetwork and the leading source of marketing support for fish producers and exporters in the Asia-Pacific region.

The conference agenda will address a variety of topics pertinent to the global ornamental fish industry, including ways to increase production through capture and culture fisheries; introduction and breeding of exotic species; health management and biosecurity measures; latest developments in packaging and transportation as well as shifts in international trade patterns. The conference will be an opportunity for international experts to gather, exchange expertise and network to discuss challenges and further developments in the sector.

About ornamental fish trade

Though the ornamental fish market's contribution to world trade in terms of value is small overall, the sector plays a highly relevant role in terms of poverty alleviation in developing countries and marine preservation as coastal and riverine communities are able to utilize a sustainable and renewable resource for a source of income. These efforts have a low impact on natural ecosystems due to the fact that small nets are often used to catch wild fish.

The value of ornamental fish trade has grown significantly over the past decades. Between 2000 and 2011, global exports of ornamental fish increased from US$181 million to US$ 372 million. Total trade in live marine ornamentals is estimated at around US$44 million annually. Most of the market supplies originate from Asia, with Singapore dominating as the top exporting country in the world. In 2013, Singapore exported around US$56 million worth of ornamental fish to over 80 countries.



Details

2nd International Ornamental Fish Trade and Technical Conference

Date: **8–10 February 2017**

Location: **Colombo, Sri Lanka**

Event page**: ornamentalfish2017.infofish.org**

Organizer: **INFOFISH**

info@infofish.org

http://infofish.org/

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Title: *The ornamental fish trade*

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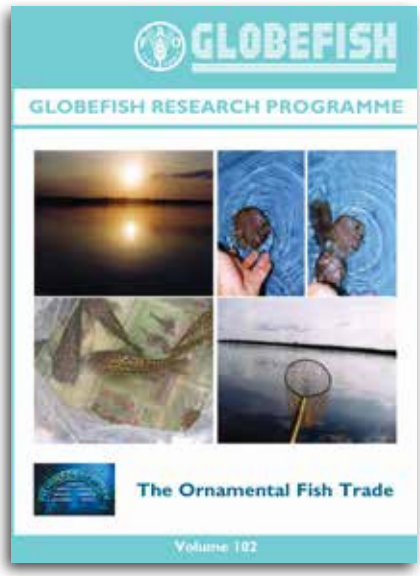
Author: Pierluigi Monticini

Abstract: The ornamental fish sector is a small but vital part of international fish trade. It contributes positively to rural development in many developing producing countries, and in the major markets for ornamental fish, the retail value is many times that of its trade value with a positive impact throughout the value-chain. The sector presents numerous challenges to operators, ranging from issues related to animal welfare and health to the protection of endangered species. Demand is linked to the health of the overall economy, adding to the cyclical nature of the industry. This GLOBEFISH report presents an overview of production, trade and markets for ornamental fish species. It provides extensive information on import regulations and requirements in major world markets.



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GLOBEFISH HIGHLIGHTS

World Fisheries Day 2016: FAO and the Holy See together in defense of human rights in the fisheries sector

On the occasion of World Fisheries Day, 21 November 2016, FAO and the Holy See are holding a joint event to discuss labour conditions within the fisheries sector.

The event theme will be "Human trafficking and forced labour within the fishing sector and Illegal, Unreported and Unregulated Fishing (IUU). The violations of human rights of fishermen" and aims to raise awareness on the linkages between labour exploitation, IUU fishing and human rights of fish workers.

Participants will be welcomed by the FAO Director General José Graziano Da Silva, who will provide the opening remarks, along with H.E. Cardinal Pietro Parolin, Secretary of State of His Holiness The Pope in Vatican City, Holy See.

The discussion will be moderated by Mr. Árni Mathiesen, Assistant Director General, FAO Fisheries and Aquaculture Department, who will open the discussion to representatives from the Pontifical Council for the Pastoral Care of Migrants and Itinerant People of the Vatican City, Seafarers Rights International and the International Labour Organization (ILO).

The event will be relevant to all those interested in learning from a variety of perspectives on how to tackle human rights abuses and labour exploitation in the seafood sector.

Why turn the attention to decent work on World Fisheries Day?

It is widely known that the fisheries sector is a direct source of food and nutrition security. Indeed, fish and fishery products provide 20 percent of protein intake to more than 3 billion people. The sector is also a vital source of livelihood, with FAO estimating that for 2014, about 200 million people were employed along the fishery value chain, from harvesting to distribution. Of this total, some 56 million people were engaged directly in the primary sector of capture fisheries and aquaculture. Indirectly, it is estimated that roughly 880 million people are employed in some relation to fisheries and aquaculture. This economic sector has long been thought of as working in one of the most dangerous environments as long days of grueling work in at times unsafe conditions can lead to a range of human rights violations. With global fish consumption increasingly on the rise, the sector will continue to grow, and it is vital to protect the human rights of individuals as well as the economic welfare of communities.

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How are human rights violated in the fisheries sector?

IUU fishing and labour exploitation affect human rights in a variety of ways, creating different types of abuses. These include, but are not limited to, human trafficking, slavery, child labour, sexual assault, exploitation of migrant workers, health conditions, as well as accidents and injuries on board. These gross violations of decent work are often linked to political, social and cultural issues, making it vital to discuss this topic in conjunction with social responsibilities and the promotion of international labour standards.

World Fisheries Day

was established in 1998 to commemorate the formation of the World Forum of Fish Harvesters and Fish Workers (WFF) in New Delhi, India, on 21 November 1997. Since 1998, it has been celebrated every year on 21 November by fishing communities worldwide through rallies, workshops, public meetings, cultural programs, dramas and exhibitions to highlight the importance of maintaining the world's fisheries. World Fisheries Day helps in highlighting the critical importance to human lives, of water and the lives it sustains, both in and out of water.

International Guidelines

Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication **(SSF Guidelines)**

The SSF Guidelines represent the first ever international instrument dedicated to small-scale fisheries. They are directed at all those involved in the sector and intend to guide and encourage governments, fishing communities and other stakeholders to work together and ensure secure and sustainable small-scale fisheries for the benefit of small-scale fishers, fish workers and their communities as well as for society at large. They complement existing international instruments, such as the Code of Conduct for Responsible Fisheries, the VG Tenure and the Right to Food Guidelines.

http://www.fao.org/fishery/ssf/guidelines/en

FISH AND FISHERY PRODUCTS STATISTICS [1]

	Capture fisheries production		Aquaculture fisheries production		Exports			Imports		
	2013	2014	2013	2014	2014	2015 estim.	2016 estim.	2014	2015 estim.	2016 fcast.
	Million tonnes (live weight equivalent)				USD billion					
ASIA	**50.8**	**52.8**	**62.6**	**65.6**	**57.8**	**53.1**	**55.8**	**43.4**	**41.8**	**42.7**
China[2]	17.4	18.3	43.9	45.8	23.8	22.1	22.3	13.5	13.4	13.8
of which China. Hong Kong SAR	0.2	0.2	0.0	0.0	1.0	0.8	0.7	3.6	3.6	3.9
& Taiwan Province of China	0.9	1.1	0.3	0.3	1.8	1.6	1.5	1.2	1.2	1.3
India	4.6	4.7	4.6	4.9	5.6	4.9	5.0	0.1	0.1	0.1
Indonesia	6.0	6.4	4.0	4.3	4.2	3.6	3.7	0.3	0.3	0.3
Japan	3.7	3.7	0.6	0.7	1.9	1.9	1.8	14.8	13.5	13.4
Republic of Korea	1.6	1.7	0.4	0.5	1.7	1.5	1.6	4.3	4.3	4.4
Philippines	2.3	2.4	0.8	0.8	1.0	0.8	0.5	0.3	0.4	0.3
Thailand	1.8	1.8	1.0	0.9	6.6	5.6	5.6	2.7	2.5	2.9
Viet Nam	2.8	2.9	3.2	3.4	8.0	8.0	8.1	1.3	1.3	1.3
AFRICA	**8.4**	**8.6**	**1.6**	**1.7**	**6.1**	**5.9**	**5.9**	**5.6**	**5.4**	**5.4**
Ghana	0.4	0.3	1.1	1.1	0.0	0.0	0.0	0.7	0.7	0.7
Morocco	1.3	1.4	0.0	0.0	2.0	1.9	2.0	0.2	0.2	0.1
Namibia	0.5	0.4	0.0	0.0	0.7	0.7	0.7	0.1	0.1	0.1
Nigeria	0.7	0.8	0.3	0.3	0.1	0.1	0.0	1.3	1.3	1.3
Senegal	0.5	0.5	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0
South Africa	0.4	0.6	0.0	0.0	0.6	0.6	0.6	0.4	0.4	0.4
CENTRAL AMERICA	**2.2**	**2.2**	**0.4**	**0.4**	**2.8**	**2.5**	**2.1**	**1.8**	**1.7**	**1.6**
Mexico	1.6	1.5	0.2	0.2	1.2	1.0	0.9	0.9	0.8	0.7
Panama	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.1	0.1	0.1
SOUTH AMERICA	**10.3**	**8.6**	**2.1**	**2.4**	**15.5**	**13.2**	**12.9**	**3.4**	**2.8**	**2.5**
Argentina	0.9	0.8	0.0	0.0	1.6	1.5	1.6	0.2	0.2	0.2
Brazil	0.8	0.8	0.5	0.6	0.2	0.2	0.3	1.6	1.2	1.1
Chile	1.8	2.2	1.0	1.2	5.9	4.8	4.8	0.4	0.4	0.3
Ecuador	0.5	0.7	0.3	0.4	4.3	3.7	3.6	0.1	0.1	0.1
Peru	5.9	3.6	0.1	0.1	2.9	2.4	2.1	0.2	0.3	0.3
NORTH AMERICA	**6.3**	**6.1**	**0.6**	**0.6**	**11.2**	**11.1**	**11.4**	**23.3**	**21.5**	**21.4**
Canada	0.9	0.9	0.2	0.1	4.5	4.7	4.9	3.0	2.7	2.7
United States of America	5.1	5.0	0.4	0.4	6.1	5.9	6.0	20.3	18.8	18.7
EUROPE	**13.5**	**13.7**	**2.8**	**2.9**	**51.8**	**45.5**	**49.1**	**60.8**	**52.6**	**57.5**
European Union [2]	5.0	5.5	1.2	1.3	33.5	29.9	32.5	54.1	47.9	52.7
of which Extra-EU	"	"	"	"	6.1	5.4	5.5	28.2	25.0	27.1
Iceland	1.4	1.1	0.0	0.0	2.1	2.1	1.9	0.1	0.2	0.1
Norway	2.1	2.3	1.2	1.3	10.8	9.1	10.4	1.4	1.2	1.3
Russia	4.3	4.2	0.2	0.2	3.8	3.1	2.9	3.0	1.7	1.5
OCEANIA	**1.2**	**1.3**	**0.2**	**0.2**	**3.1**	**2.9**	**2.9**	**2.8**	**2.7**	**2.6**
Australia	0.2	0.2	0.1	0.1	1.1	1.1	1.0	1.7	1.4	1.4
New Zealand	0.4	0.4	0.1	0.1	1.2	1.1	1.2	0.2	0.2	0.2
WORLD [3]	**92.7**	**93.4**	**70.3**	**73.8**	**148.3**	**134.1**	**140.0**	**141.3**	**128.5**	**133.6**
World excluding Intra-EU	"	"	"	"	**120.9**	**109.5**	**112.9**	**115.4**	**105.6**	**108.0**
Developing countries	68.4	68.9	66.1	69.4	80.8	73.2	75.3	38.7	37.6	38.1
Developed countries	24.3	24.5	4.2	4.4	67.4	60.8	64.0	102.0	90.2	93.2
LIFDCs	11.8	12.1	7.1	7.6	9.1	8.2	8.1	3.3	3.3	3.4
LDCs	10.3	10.7	3.2	3.4	2.9	2.9	2.9	1.1	1.1	1.1
NFIDCs	20.2	18.5	4.8	5.0	10.8	10.0	9.6	4.0	3.8	3.9

[1] Production and trade data exclude whales, seals, other aquatic mammals and aquatic plants. Trade data include fish meal and fish oil.

[2] Including intra-trade. Cyprus is included in Asia as well as in the European Union.

[3] For capture fisheries production, the aggregate includes also 22 155 tonnes in 2013 and 7 999 tonnes in 2014 of not identified countries, data not included in any other aggregates. Totals may not match due to rounding.

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Food and Agriculture Organization of the United Nations
Fisheries and Aquaculture Policy and Economics Division
Products, Trade and Marketing Branch
Viale delle Terme di Caracalla
00153 Rome - Italy

(+39) 06 57054163 globefish@fao.org www.fao.org/in-action/globefish @FAOfish

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